

Building and Debugging

# 10 Basic Debugging

*The Project Builder Launch panel provides an interface to the Free Software Foundation's **gdb** debugger. You can set breakpoints, step through source code a line at a time, and examine the values of variables. The panel also allows you to perform any and all **gdb** commands and to run programs outside of the debugger.*

- [;StartingADebuggingSession.rtf](#);Startingadebuggingsession;, Starting a debugging session
  - [;ExecutingSeveralLinesOfCode.rtf](#);↩ Executing several lines of code
- [;RunningTheProgramInTheDebugger.rtf](#);Runningtheprograminthedebugger;, Running the program in the debugger
  - [;ExaminingTheValueOfAVariableOrAnObject.rtf](#);Examiningthevalueofavariableoranobject;, Examining the value of a variable or an object
- [;InterruptingTheProgram.rtf](#);Interruptingtheprogram;, Interrupting the program
  - [;NavigatingUsingTheStack.rtf](#);Navigatingusingthestack;, Navigating using the stack
- [;ExecutingASingleLineOfCode.rtf](#);Executingasinglelineofcode;, Executing a single line of code
  - [;DebuggingObjectAllocationAndDeallocation.rtf](#);Debuggingobjectallocationanddeallocation;, Debugging object allocation and deallocation
- [;SteppingIntoAMethodOrFunction.rtf](#);Steppingintoamethodorfunction;, Stepping into a method or function
  - [;DebuggingAMultithreadedProgram.rtf](#);Debuggingamultithreadedprogram;, Debugging a multithreaded program
- [;SettingBreakpoints.rtf](#);Settingbreakpoints;, Setting breakpoints

[;ChangingProgramExecutionWhileDebugging.rtf](#);Changingprogram execution while debugging;  
[;ManagingBreakpoints.rtf](#);Managing breakpoints;  
[;ChangingCodeWhileDebugging.rtf](#);Changing code while debugging;  
[;DebuggingConcepts.rtf](#); [Related Concepts](#);  
[;DebuggingMultipleProjects.rtf](#);Debugging multiple projects;

A fly, Sir, may sting a stately horse and make him wince; but  
 one is but an insect, and the other is a horse still.

Samuel Johnson

Errors, like straws, upon the surface flow;  
 He who would search for pearls must dive below.

John Dryden