

Tour of an IDE | Part D

The last feature of the IDLE IDE we're going to look at is called the debugger and this is a really powerful professional level tool to find problems in your code. The first thing we need to do is to switch it on. So if you click on the shell and click on the debugger and you'll see a little window pop open. This keeps tracks of our variables and other things in the program. We will pop that over there for now and now we're actually going to run our code and you will see that it pops up with all sorts of information there.

Now obviously this is a complex and professional level tool. We don't need to know everything on there. One thing I can do is step through the program line by line. It's called Step. I can also step over functions and we look at functions in the programming topics and I can step out of functions if I'm stuck in a function then I can step out of that. And you will see that because I've stepped through that the program has now run right to that particular part, it's waiting for my input and I can continue with the program.

Another thing I can do with the debugger is to set a break point in the program. This is really useful if I've got a very long program. I don't want to step individually through that program. I can run it right down to the point I'm interested in and then take the debugging from there. So if I set a break point then that line will turn yellow and I know the program will actually run down to there and so if I run the program and up pops the debugging window and I know the program's actually reached that stage. And then I can step individually through the lines or I can jump over or out of functions and so on. I can also 'go' and that will run me to the end of the program and you can see the prompt asking for the information on the screen.

Some IDEs also keep track of variables and modules of code in a simple text file. This auto documentation utility is very useful especially when teams of programmers are working together or when software's being maintained. IDEs also provide a run time environment for the programs being written. They also provide translators to convert the high level code to low level so that it can be executed.

In this lesson you've learned about the software used by programmers to develop code called an Integrated Development Environment or an IDE.

Thanks for watching.