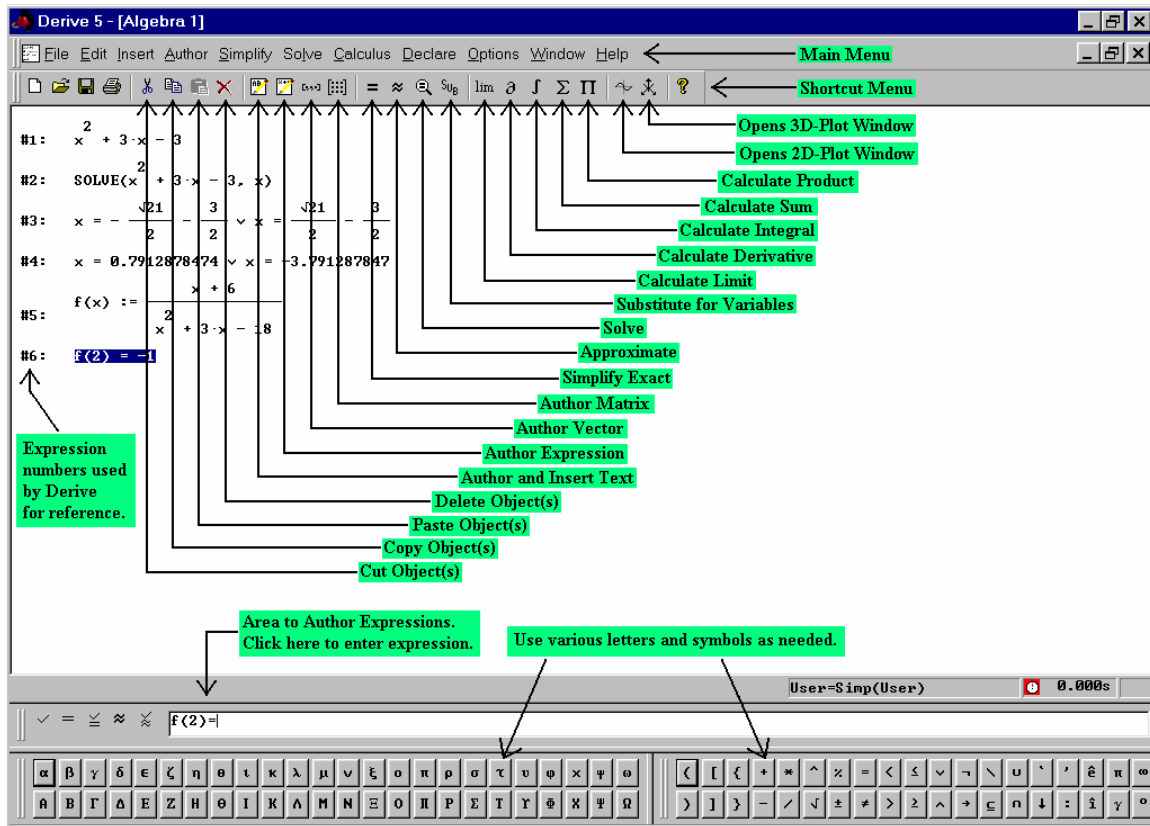


INTRODUCTION TO DERIVE

To begin, look at the main *Derive* screen shown below. While working the assignments in this manual, you may want to refer to this screen for help.



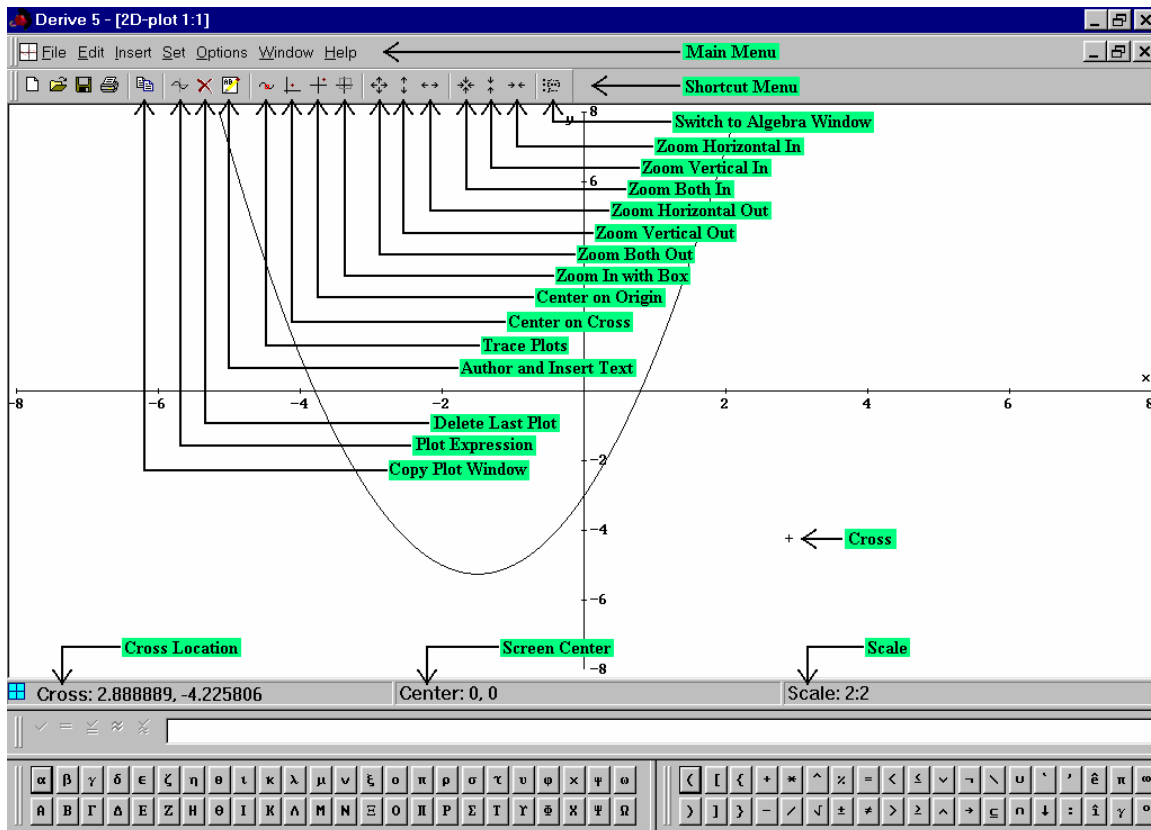
The main screen has the familiar commands like **File**, **Edit**, **Window**, and **Help** that are found in most Windows™ applications. **Author**, **Simplify**, **Solve**, **Calculus**, **Declare**, and **Options**, however, are unique to *Derive*. These commands make up the main menu. Located below this are several shortcuts we will find to be very useful. These shortcuts allow us to simply execute *Derive* commands by just clicking on them.

We **Author** commands much like we would enter them on a graphing calculator. *Derive* keeps track of our commands and expressions with the use of line numbers. Each line is given a unique number that we may use in future commands.

For example, click **Author**→**Expression** and type $5*3+10$ and either press ENTER or click **OK**. This expression appears with a #1 to its left. Now, click **Author** again and enter $\sqrt{\#1}$ and click **OK**. Notice that *Derive* used our entry in expression #1 and saved us from a lot of typing. Now, highlight all of expression #2 (the #2 will not be highlighted; notice how we are able to highlight subexpressions) and click the $\frac{\square}{\square}$ button found on the shortcut menu. *Derive* now simplifies expression #2 and shows a 5 as expression #3. Is this result correct? The square root of 25 is 5, so *Derive* is correct.

The previous paragraph shows how we will be using both commands from the main menu and shortcuts from the shortcut menu. If it is necessary to go through several menus and/or commands, we will denote these in boldface such as "**Author→Expression**", as we did above. Note that it is very critical that the commands and expressions are entered exactly as they appear in this manual. *Derive* is not very picky about spacing, but leaving out a parenthesis or letter will cause problems.

Derive is very good at helping us explore graphs. Shown below is the 2D-Plot Window along with its shortcuts.



When we are graphing functions, feel free to experiment with the zooming capabilities of *Derive*. These buttons allow us to maneuver the graph so that we get just the "right" view. In many assignments, you will be asked to sketch the graph. You will find an axis provided for your convenience with an appropriate range and scale on each axis. You should use these as guides when selecting the right view.

When using *Derive*, you will soon discover that there are sometimes several ways to do the same thing. There are two ways to simplify things, **=** and **≈**; there are a variety of ways to solve equations, **Solve→Expression**, **Solve→System**, or **⊞**. This manual will usually just show one or two ways, but with some experimenting, you will find others.

Good luck to you and I hope you find enjoyment in the assignments.