Dotplot

Version 5.03

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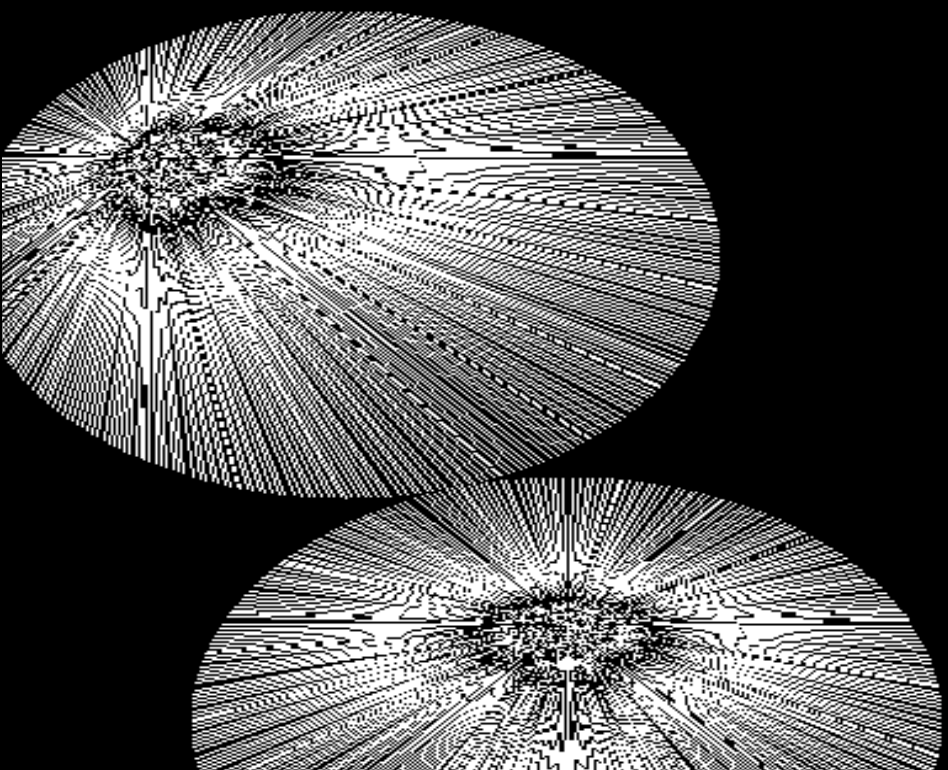

DOTPLOT is a program for comparing two protein or DNA sequences and for doing so quickly and interactively on the Atari ST.

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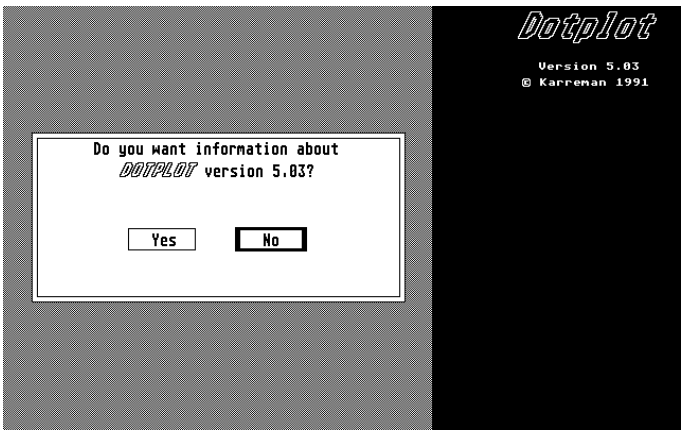
Installation of DOTPLOT.

For the installation of DOTPLOT you will need at least an Atari 1024 ST with a black and white monitor and one single-sided disk drive. Atari computers with more RAM memory, e.g. the Mega ST 2 or Mega ST 4 are also fine; a harddisk will speed up the loading and saving of your files considerably but is not necessary. A color monitor is not compatible with DOTPLOT; you need a high-resolution screen.
Dotplot comes on one floppy disk that contains a total of four subdirectories (folders). The program itself, the program editor and all data files are in the DOTPLOT-folder, the data files are all in their own folder called DATA.
To install DOTPLOT you will have to copy at least the DOTPLOT folder and its contents to the disk you are planning to use for running DOTPLOT. This can be another floppy disk but preferably it will be a logical sector of your harddisk. Since DOTPLOT will be writing as well as reading the disk during the run, it can not be write-protected. This will make the disk very sensitive to any viruses that are in your system. So to install DOTPLOT, switch off your system (hard reset) and then, before you run anything else make a copy of your DOTPLOT disk. Keep the original disk write-protected at all times.
The other two folders that are on the disk are called DNA and PROTEIN. They contain two DNA and two protein sequence files respectively. When compared with each other by DOTPLOT they will reveal stretches of homology; this will give you some idea about the desirable default values and graphic output.
Although the two latter folders are not absolutely necessary to run the program it is advisable to install these two folders on the same logical sector as your DOTPLOTfolder. The program will look for them, and the files contained in them, first.
If you have copied all the folders you are ready to run DOTPLOT.

Running DOTPLOT.

To run DOTPLOT you start the program by double-clicking on DOTPLOT.PRG, this will load the program and start its execution. The first you will see is the same picture as on the front of these instructions, although it is a very nice picture and you can probably watch it for hours, a single click on one of the mousebuttons or pressing



The first question of DOTPLOT.PRG.

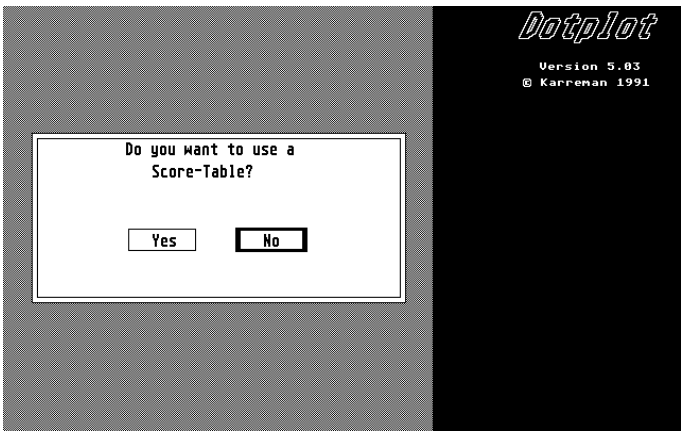
As is customary for most programs the thick-lined box is the default option: if <RETURN> is pressed this option is automarically selected. You can select "Yes" by clicking the left mousebutton after placing the mouse arrow in the in the "Yes"-box. If you want to have more information at this point, here is your opportunity. All the information, of course, is also contained in this set of instructions. The built-in help files are accessible by looking up the item of interest on the INDEX-page (page 2) and selecting the corresponding page by typing the number on the prompt. It is also possible to browse by pressing <RETURN>. After you select "QUIT" the information mode is left behind and you will return to the next option. This is of course the same as you would have encountered if you hadn't opted for information in the first place.

The INDEX page of the built-in information.

The next question of DOTPLOT will probably be of more interest to you as you are now getting impatient for some serious DOTPLOTting. Here your first real choice is made; either for DNA (or RNA see pages 8 and 9) or for proteins.

The DNA/Protein options.

As can be seen by the thick lined box <RETURN> will get you the protein option. Since this is the most used (right, thats why it is the default), this leaflet will first cover the events following your pressing <RETURN> or "clicking" the right-hand box. For DNA go directly to page 7.
As soon as you have selected proteins you get your second choice to make.



The score-table option.