

## **DX Engineering's *GraphAO***

This simple program will allow you to look at 'run' files from AO (Antenna Optimizer) in a graphical form, and will also allow you to compare them with up to 8 other files. Print your graphs or save them to an image file for later use. Rename files on the fly so you have names relative to what you are designing rather than multiple files called 'run.txt'.

This manual will guide you through the use of *GraphAO* to do all of this and more. It does assume that you have experience with AO and know how to use it and produce the run files to be used in *GraphAO*.

## System Requirements

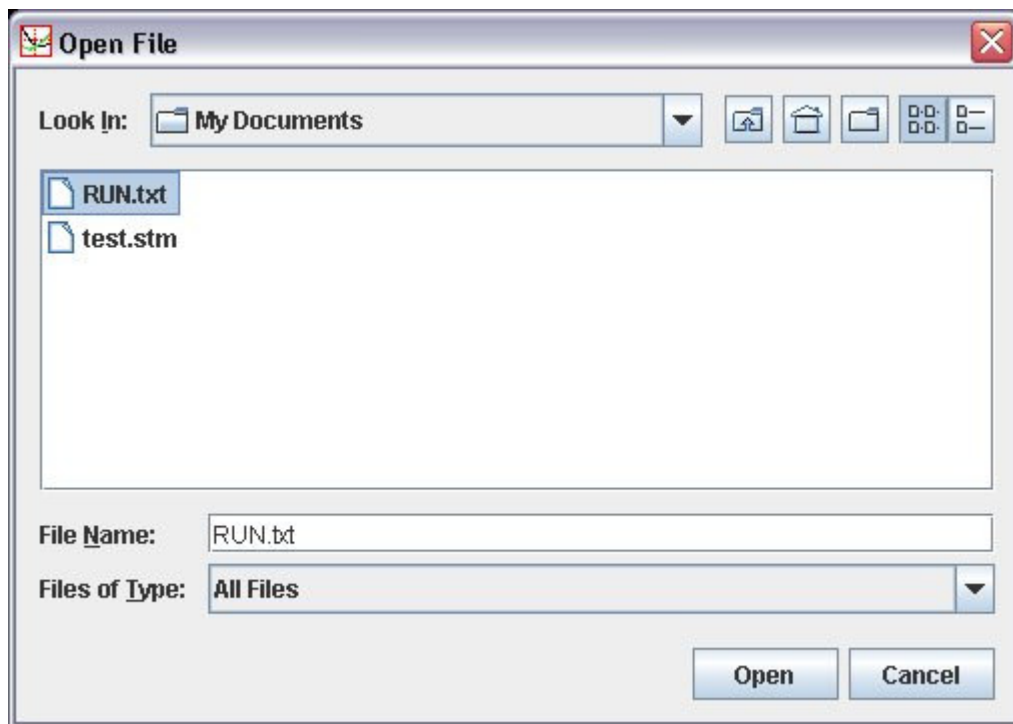
*GraphAO* uses *Java* from *Sun Microsystems* (Download *Java* from [www.java.com](http://www.java.com)). The minimum requirements here are based on *Java*'s minimum requirements, and the recommended requirements are suggested as a setup that should be able to run *GraphAO* more smoothly.

### Minimum requirements

- 166MHz PII class (500MHz PIII class or better recommended)
- 32MB RAM (64MB RAM or better recommended)
- 50MB HD space (100MB HD space or more recommended)
- Windows 98 or higher, Windows NT 4.0 SP6a or higher, Windows XP,  
or Windows Server 2003

## Using *GraphAO*

### *File Dialog*

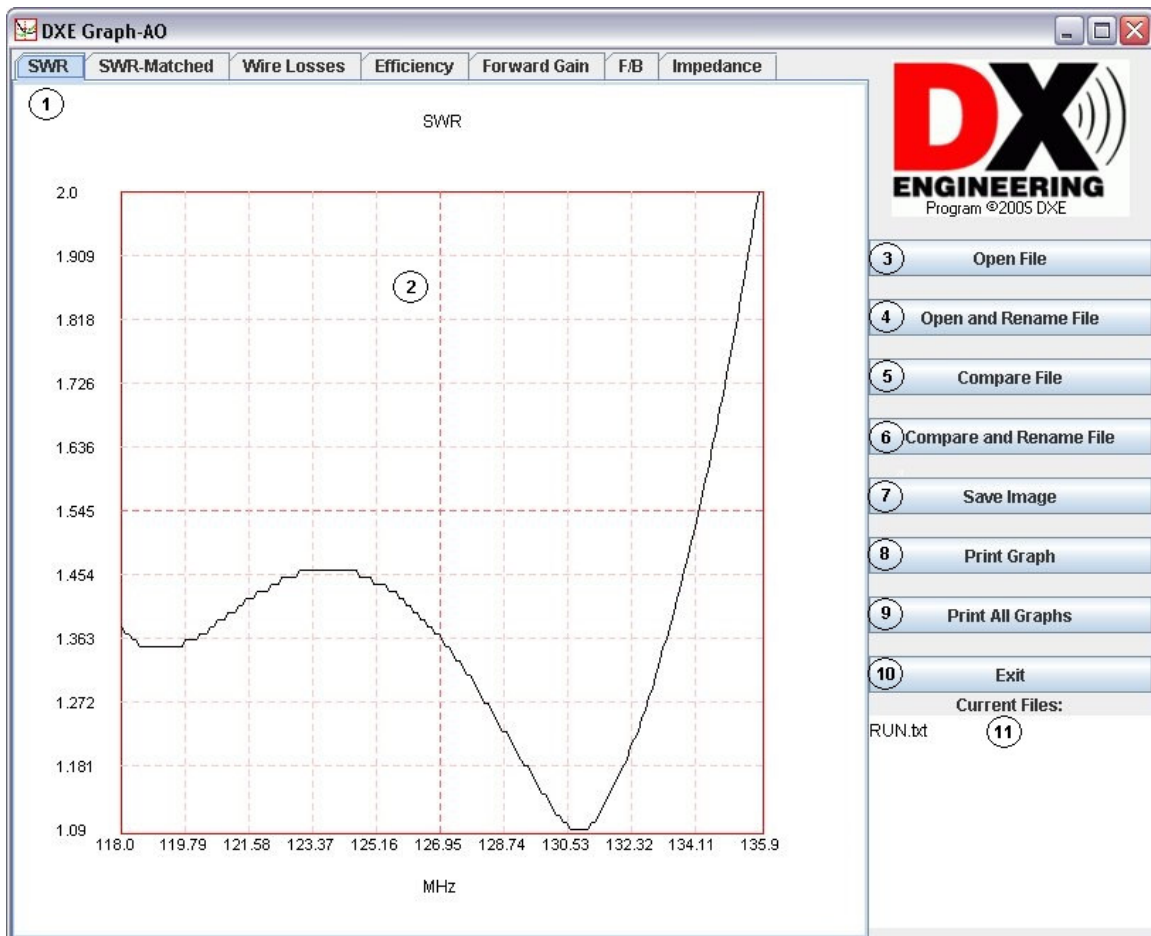


*GraphAO* uses the standard file dialog to browse through files on your system, like the one shown here. Note that the title of the window changes to show you what you are doing. There are two directories stored by *GraphAO* in **dir.ini**. The first is the **open directory**, which is the directory where you keep files you use with the program, and may actually be the *GraphAO* directory. When you open and rename a file, *GraphAO* sets this as your **rename directory**, which is generally going to be your AO directory, where new 'run' files are generated. This setup is done to help make it easier for you to keep track of your files, and follows the intended flow of using *GraphAO*: generate a 'run' file in AO, open/compare and rename the file (moving it from your **rename**

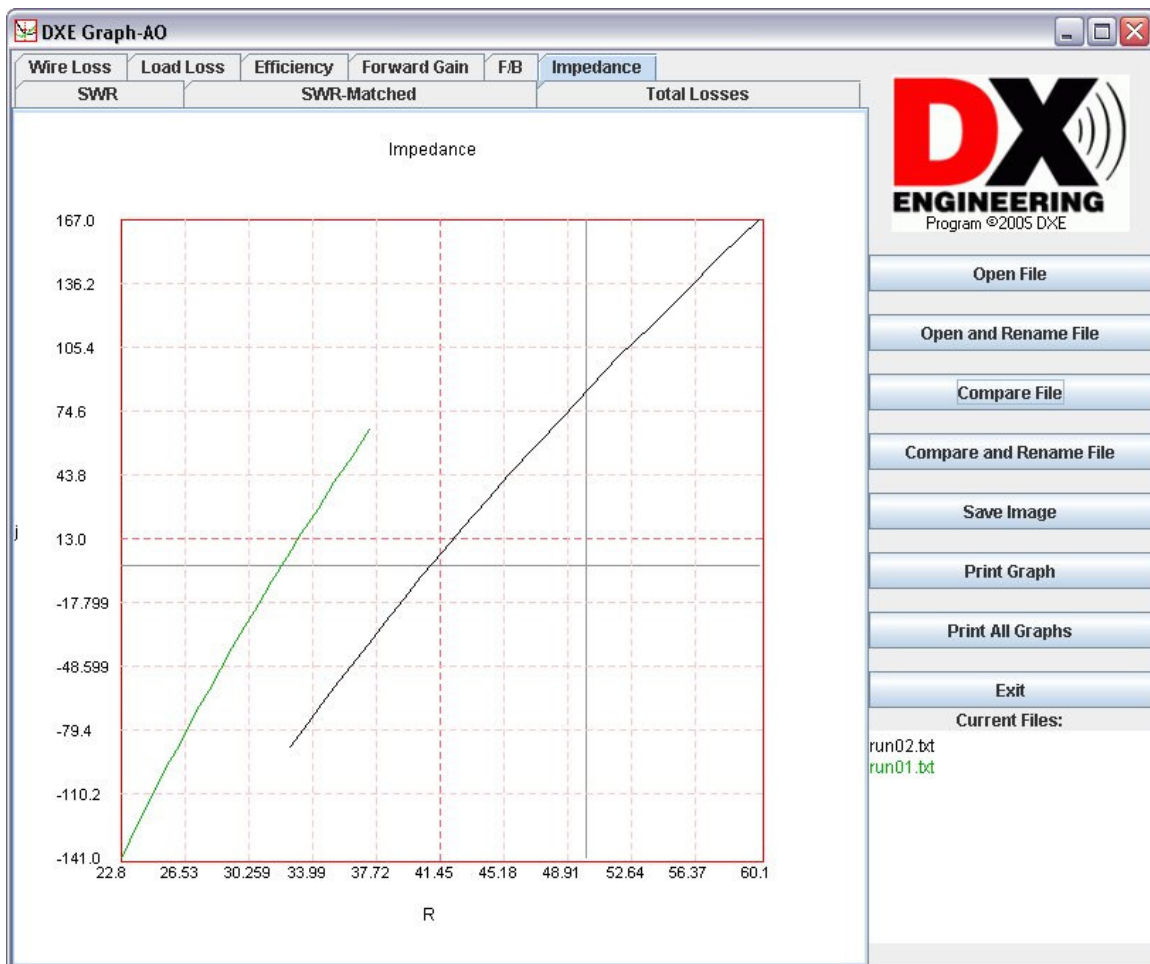
directory to your open directory), and repeat. These directories can be set manually in the **dir.ini** file.

## Main Window

*GraphAO* takes the information from the 'run' files, splits it up according to category, and then displays each in a separate graph.



1. Graph Tabs – Use these tabs to see what graphs are available, and click on them to display the corresponding graph.
2. Graph – *GraphAO* takes the data from the ‘run’ files and puts it into a scaled graph to make the data easier to look at. Units are marked, and values are denoted at each of the graph’s lines. Hovering your mouse pointer over the graph will show you the current point on the graph. Also, to help in working with impedance graphs, the  $50+0j$  point on the graph is marked if it is visible. See the below image for an example.



3. Open File Button – By clicking this button, you release all of the data from other files you have been viewing and tell *GraphAO* to open and graph a different file.

4. Open and Rename File Button – Just like the Open File Button, except that instead of opening the file where it is, *GraphAO* allows you to rename and move it to another directory. This is useful for naming files as you go, and making sure you do not overwrite important ‘run’ files when generating new files via AO.
5. Compare File Button – Clicking this button allows you to open a new file and compare it to the current open file(s) in *GraphAO*. Compare up to 9 run files total.
6. Compare and Rename File Button – Works just like the Open and Rename File Button in terms of renaming the file, but instead of releasing the data already in *GraphAO*, it is kept for comparison to the new file.
7. Save Image Button – Export the current graph to a JPEG image file for later use. The image shows the whole *GraphAO* window.
8. Print Graph Button – Use this button to print the *GraphAO* window with the current graph.
9. Print All Graphs Button – This is a shortcut for printing out all of the graphs for the current files. Instead of clicking each tab and the Print Graph Button, you can click this once and it will print each tab for you.
10. Exit Button – Press this button to exit *GraphAO*. Note that there is no confirmation, so make sure you have saved any important graphs to image files or printed them out before you exit. Clicking the window’s close button (the ‘X’ in the upper right corner) has the same effect.

11. Current Files List – Here you will find a list of all open files. This also serves as a legend for the graphs, as the color of the filename is the same as what is used to display the information on the graphs for that file.

## **Contact Information**

We at *DX Engineering* take pride in all of the products that we sell, and we want to show our commitment to the consumer not only in development and manufacturing, but also in making sure that we take your feedback into account for future versions of our products. If you have any questions, comments, suggestions, or problems regarding our software, please contact us at the following email address, or log on to our website and go to the software section to browse a continually updated version of the manual/FAQ.

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