

EESy Solutions

Engineering Equation Solver Newsletter

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Welcome

EESy Solutions is a newsletter developed to provide news, tips, and tricks relating to Engineering Equation Solver. **EESy Solutions** is provided at no cost to all registered users of EES. Our intent is to publish the newsletter twice yearly. We encourage user contributions so send us your comments and questions.

What's Coming?

EES is continuously being updated to add new features and improve existing capabilities. Registered owners of EES are sent update notices each year. Our next scheduled update will be issued in Spring 1997. However, we have already added a number of interesting new features which are currently undergoing testing at several universities. Here's a summary of some of the features you can expect to find in the next update.

Unit Conversion

EES can now provide unit conversion with its new Convert function. This function takes two string parameters and returns the conversion factor to convert from the units represented by the first string to that represented by the second. A large set of unit definitions have been included and additional units can be entered by the user. As an example, the following equation would convert 50 meters per second to its equivalent in miles per hour.

Velocity=60 * Convert(m/s, mph)

Interpolate and Differentiate

Functions have been added to provide linear, quadratic, and cubic interpolation as well as numerical differentiation of tabular data in the Lookup Table, Lookup files, and the Parametric Table. The Interpolate function combines the capabilities of the existing Lookup and LookupRow functions and greatly simplifies use

of tabular data.

Automatic Variable Format

A new automatic display format has been added to the existing fixed decimal and exponential formats. Automatic formatting selects the format type (fixed decimal or exponential) and the number of significant figures based on the value of the variable. The new default, automatic formatting, should eliminate the need for user to select an appropriate display format.

There are a number of other new features such as a file saved indicator, the ability to set the background color for each column in a table, and improved control over the appearance of log plots. What? You say that you need these new features right now? Give us a call.

The Associate Command

One of the most frequent questions we receive is "how can I get EES to open and read a file when I double-click on the file name in Windows 95?". If this feature is not working properly on your computer, you need to use the Windows 95 Associate file configuration. Follow these directions.

Select Windows Explorer from the Programs menu item of the Start menu. While in Explorer, locate a previously saved EES file and select it by clicking on the file name. Select Options... from the View menu and click on the FileTypes tab. Use the scroll bar to bring "Engineering Equation Solver" into view within the Registered File Types list. Now select Engineering Equation Solver and click the Edit button. A small dialog window will appear with the word Open in the Action: list. Select Open and then click the Edit button. Specify the complete file name for EES, which usually is C:\EESW\EES.EXE. Click OK and then the Close button in all open dialogs.

From now on, when you double-click on an EES

file name, EES will load and start that file. A similar procedure is used in Windows 3.1 and NT.

Did You Know?

Pressing the Shift key when the foremost window is a plot will change the mouse cursor into crosshairs. Crosshairs ease reading values from the plot. The values at the cursor location are displayed in the plot window title bar.

Holding the Option key down when EES is started prevents EES from loading the files in the USERLIB directory. EES will launch faster. If you find that you do need one of the library files, you can load it when you need it with the Load Library command in the File menu.

The guess value field in the Variable Information dialog can accept an existing variable name in place of a numerical value. EES will use the current value of the variable specified as the guess value when solving for the value of the variable.

In addition to providing a picture to aid interpretation of the contents of the Equations window, the Diagram window can be used for both input and output of information and for report generation. The Add Diagram Text command in the Options menu allows text to be placed anywhere on the Diagram window. The text can be the name, value and units of any value

defined in the Equations Window. The Diagram window can be used to input a value (just as if it appeared in an equation in the Equations window) or display a calculated value. One possible use of this Diagram window is as a sales tool. The diagram can be a scanned picture of a piece of equipment distributed by your company. You can input operating conditions, model number or other information directly on the Diagram window. When the Solve command is issued, the variable(s) you select to display will appear directly on the diagram.

In the Windows version, pressing the right mouse button often provides some useful effect. For example: If you select some text in Equations window, pressing the right mouse button will automatically insert comment brackets around this text. If the selected text starts and ends with comments brackets, clicking the right mouse button will remove these brackets. Clicking the right mouse button on an equation in the Formatted Equations window will bring the Equations window to the front with the cursor positioned on the that equation. Click the right mouse button in the Diagram window and the figure and text in the window will expand or shrink to fit the current window size. Clicking the right mouse in any of the plot windows brings up the Modify Plot or Modify Axis dialogs, depending on the location of the cursor when the button is clicked.