

Table Editor

A necessary operation in interactive ADAS is entry of user values into a table. Since this is common to many ADAS programs, a special widget has been developed to assist in this task. To avoid repetition in the description of each code, a summary of how to use **Table Editor** is given here. A typical appearance is shown below

▾
ADAS Table Editor

Temperature & Density Values

Index	Output	Input	Output	Input
<input type="text" value="1"/>	<input type="text" value="1.000E+00"/>	<input type="text" value="1.000E+00"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="1.000E+11"/>
<input type="text" value="2"/>	<input type="text" value="2.000E+00"/>	<input type="text" value="2.000E+00"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="2.000E+11"/>
<input type="text" value="3"/>	<input type="text" value="5.000E+00"/>	<input type="text" value="5.000E+00"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="5.000E+11"/>
<input type="text" value="4"/>	<input type="text" value="1.000E+01"/>	<input type="text" value="1.000E+01"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="1.000E+12"/>
<input type="text" value="5"/>	<input type="text" value="2.000E+01"/>	<input type="text" value="2.000E+01"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="2.000E+12"/>
<input type="text" value="6"/>	<input type="text" value="5.000E+01"/>	<input type="text" value="5.000E+01"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="5.000E+12"/>
<input type="text" value="7"/>	<input type="text" value="1.000E+02"/>	<input type="text" value="1.000E+02"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="1.000E+13"/>
<input type="text" value="8"/>	<input type="text" value="2.000E+02"/>	<input type="text" value="2.000E+02"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="2.000E+13"/>
<input type="text" value="9"/>	<input type="text" value="5.000E+02"/>	<input type="text" value="1.000E+05"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="5.000E+13"/>
<input type="text" value="10"/>	<input type="text" value="1.000E+03"/>	<input type="text" value="1.000E+03"/>	<input type="text" value="1.000E+12"/>	<input type="text" value="1.000E+14"/>

◇ Delete
◇ Remove
◇ Insert
◇ Copy
◇ Paste

Row_skip
 Column_skip
 Scroll up
 Scroll down

Temperature Units

Kelvin
 eV
 Reduced

Cancel
Done

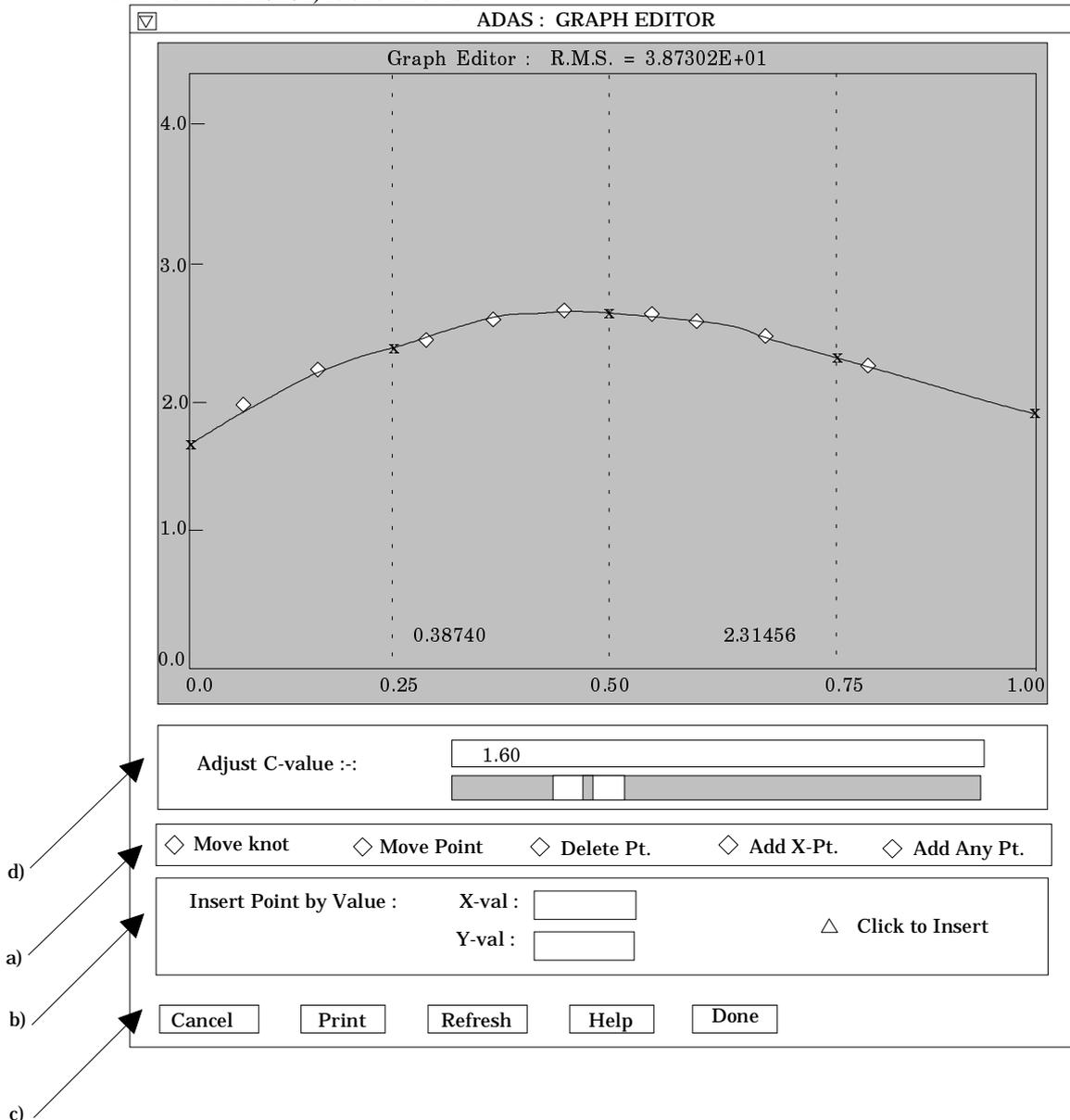
1. The values in italic font are your input data. Click in any of these boxes to edit the number within it. Press the *return* key on the keyboard to record any change.
2. The set of diamond and square buttons below the table are designed to help in some editing tasks. You must be careful to remember the sequence of operations since it is different from that on personal computers. **Activate** the appropriate button, **position** the mouse text cursor or drag over required digits, **press the return key** on the keyboard to complete the sequence. Some diamond buttons operate only for the next immediate action and then deactivate, others (*Delete*, *Remove* and *Insert*) remain active until clicked off. Square buttons have a continuing effect until an alternative is pressed. The *Delete* button allows deletion of the value in a box, leaving an empty box; the *Remove* button allows deletion of a value with the column then being pushed up; the *Insert* button creates a new empty box, pushing the column down. The *Row_skip* button causes a jump to the next editable box in a row when the *return* key on the keyboard is pressed; *Column_skip* causes jumping to next box in a column. *Scroll up* moves the whole window down. Note that the window only shows ten values in a column, but the whole table may be longer than this. Preferred Temperature units for working with may be chosen. Changing units causes the Inputs from the file to change to

the new units. It **does not** change any Output values already typed in. It merely interprets Output values in the selected units.

3. Press the *Done* button to record the changes and return to the screen from which Table Editor was initiated. The *Cancel* button prevents the new values being substituted on return.

Graph Editor

In the fundamental data entry and verification sections of interactive ADAS, flexibility in adjustment, deletion and insertion of points on a displayed comparative graph is useful. Since this is common to a number of ADAS programs, a special widget has been developed to assist in this task. A summary of how to use **Graph Editor** is given here. A typical appearance (in fact from ADAS101) is shown below.



1. Input values are displayed as circles. The points can be modified by using the buttons a) beneath the graph in association with the mouse. In the table editor for ADAS101, a least squares spline fit is made to these tabular points. The spline passes through five special knot points which are distinguished in the Graph Editor as crosses. An extra button is present for this case to allow the knot points to be moved vertically.
2. To move a point, click the *move a point* button. Then use the *left* mouse button to pick and drag a point to a new position. Note that the x-ordering of points should be maintained although not forced by the editor. Each point has a small active

zone around it for picking by the mouse. Terminate point moving operations by pressing the *right* mouse button. To delete a point, click the *delete a point* button. Then click the *left* mouse button with the pointer over the point to be deleted. Terminate point deletion operations by pressing the *right* mouse button. To add a new point in the x-ordered position between two existing points, click the *add X-point* button. Then click the *left* mouse button with the pointer at the position where the new point is to be inserted. Terminate point insertion operations by pressing the *right* mouse button. For completeness, the capability for adding a point anywhere is given although physically unreasonable. The operation is slightly different. Click the *add anywhere* button. With the *left* mouse button pick a point after which you wish the new point added. Press the *left* mouse button with the pointer at the insertion point. Multiple insertions may be made by continuing to click the *left* mouse button. Click the *right* mouse button to terminate this particular insertion. Press the *right* mouse button a second time to terminate insertion operations.

3. To insert a point by value use sub-window b).
4. The buttons at c) provide the usual *cancel*, *print* and *done* options. In addition the *help* button displays some information on using the graph editing facilities. The original data and graph can be restored by clicking the *refresh* button. Note that after leaving the graph editor window with the *done* button, the modified and or additional points replace the original user input data. Further actions depend on the particular ADAS program which launched Graph Editor. Thus for ADAS101 with the ADAS analysis option, if any points are modified, the program cycles back for reanalysis. With the Burgess analysis option, movement only of the spline knots does not force reanalysis.
5. The graph editor for ADAS101 also includes a slider to adjust a parameter 'C' which affects the plot.