Chapter 16
Inspectors

You'll find that most of the functionality of EquationBuilder is accessible through its various inspectors.   By making options available only when appropriate, EqB gives you as much flexibility as possible, without swamping you with the sum total of choices available.

EquationBuilder has three levels of inspectors which are selectable either through the pop-up list found on the inspector panel, or by a command key equivalent.

Equation Inspector   (1)

The first level in our hierarchy is the Equation Inspector.   This inspector is used to set parameters that affect the equation as a whole. Such options as setting the default fonts and

font sizes for a particular equation are found here.

· **Note**

> The Equation Inspector only affects the equation you are currently editing.   If you wish to change these parameters for newly created equations, you should to use the Preferences panel to set various default options (see Chapter 11).

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· **Default Font Types**

> Allows the selection of the font families that are used as the default Italic, Roman, and Bold fonts for the inspected equation.   The font that is currently being used for the selected default font type is shown in the large preview field below the pop-up list (*Times-Italic* above).

> In order to change one of the default fonts for the inspected equation, select the default font type via the pop-up list (Italic above) and press Change…. The inspector will then switch to show you a list of the fonts available on your system and allow you to set a new font for the particular default font you are changing.

· **Equation Size**

> In general, equations can be classified as either Display equations   (somewhat larger,

meant to stand alone), or as In-line equations (somewhat more compact, to be used in a line of regular text).   The general form for the inspected equation is selectable here. If you change sizes, the inspected equation will automatically re-typeset itself to reflect your choice.

· Default Style

Depending on the particular equation, it is sometimes useful to *italicize* characters by default.   The Italicize Aa..Zz button sets the default font style for all ordinary alphabetic symbols in the current equation. Note that this setting will not affect any of the greek or miscellaneous symbols available from the Element Creator panel.

· Default Font Sizes

Different equation elements are typeset at different sizes depending on their positions and relationships within an equation. For example, the variable $^a a^o$, alone on the baseline, will be typeset in the default large font size. If this variable later becomes part of a superscript, the $^a a^o$ will be re-typeset in the default medium font size. This follows the standard convention used for typesetting mathematics. EquationBuilder is smart about scaling the sizes of elements depending on where they are typeset within an equation.

This portion of the inspector is used to change the default font size for Large, Medium, and Small elements in the equation.

· Fine Positioning

Using the Element Inspector (see below), it is possible to offset elements from their default position.   This field sets the distance that the element will move on each step when using the fine positioning controls on the Element Inspector.

Element Inspector (2)

The second level inspector is the Element Inspector, which allows you to change parameters that are common to all elements. Using the Element Inspector, you can set the font, size, and position of any element or group of elements that you have selected.

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· **Element Font Type**

Sets the font type for the selected element or group of elements to be Default, Roman, Italic, Bold, or Custom. The font for the current selection is shown in large preview field below the pop-up list.   If Custom is selected, the inspector will switch to show you a browser of available font families and typefaces from which you can set the Custom font.

Note that if you click on the font type pop-up list and decide that you really don't want to change the selection's font type, select As Is and no changes will be made.

· Fine Positioning

Occasionally you may want to offset an element from its default position.   The fine positioning arrow buttons (as well as the shifted-arrow keys on the keyboard) allow you to manually position the selected element or group of elements. The center button will return the element to its default position.   The amount the selected element is shifted at each step is shown below the arrow buttons (0.5 in the example above) and is changeable via the Equation Inspector (see above).   Alternatively, the fine position offset can be entered directly in the text fields above the arrow buttons.

· Element Font Size

Allows you select whether the default or a custom font size should be used for the selected element or group of elements.   If Custom is selected, the font size browser will activate, allowing you to choose a custom font size.   If As Is is selected, no changes will be made.

The boxed region at the bottom of the Element Inspector is used only in special circumstances.   If the selected element or group of elements forms an integral part of a Matrix or Multiline element, the bottom section of the Element Inspector will change to reflect additional options:

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· **Matrix Element Alignment** (when appropriate)

> When the selected element is part of a Matrix, additional controls will appear at the bottom of the Element Inspector that allow you to set the alignment of the selected element to be either left justified, right justified, or centered in the column of the Matrix. (Alignment is centered by default.)

ElementInspector.Multiline.tiff ¬

· **Multiline Element Alignment** (when appropriate)

> When the selected element or group of elements forms part of a Multiline, a switch appears at the bottom of the Element Inspector, allowing you to set the vertical alignment for the Multiline on the selection.

> For example, if you wanted to align the different lines of a Multiline element to an ª=º in a particular line, you would select the ª=º in that line and then check the Align Vertically on Selection switch in the Element Inspector. (See Chapter 8 for an example of how to use Multiline elements.)

Attributes Inspector   (3)

EquationBuilder's third, and most specific, level of inspectors is the Attributes Inspector. The Attributes inspector changes to reflect the options available for the particular element type of the selection. For example, when an Accent is selected, the Accent Inspector becomes visible, allowing you to change the style of the selected Accent.

Each of the various element specific Attribute inspectors are detailed in the next chapter (Chapter 17).