

MathType



Goal: Use MathType to format symbols and equations to be read in CAR

** Welcome to MathType, remember that MathType is considered above entry level conversion and should only be done if you/the lab coordinator feel as though your conversion skills are ready for the next step. Stay strong not all MathType is bad. **

If you are familiar with what does/does not get MathType skip to the “How to MathType” section.

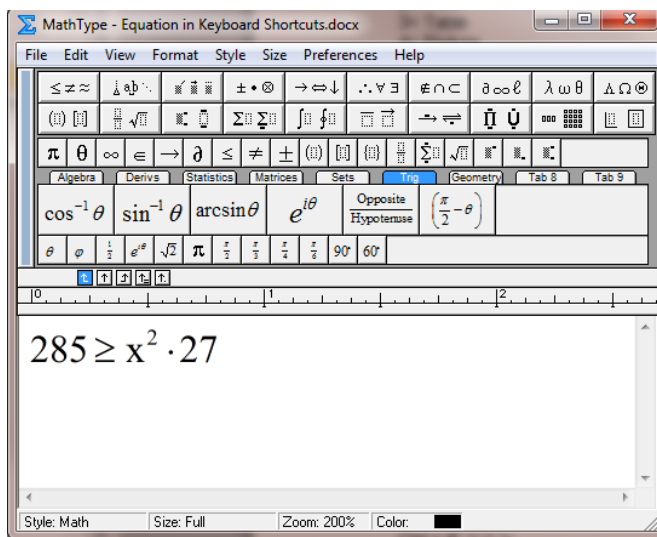
Refresher course: What get's MathTyped?

1. Mathematical operators that do not read in CAR ($-$, \div , \times , \neq , etc.)
 - a. Generally only $+$ and $=$ read correctly without MathType, but should be MathTyped if they are included in an equation.
 - b. MathType in-text symbols even if they are not accompanying an equation.
 - c. MathType **ALL NEGATIVE NUMBERS**
2. Greek letters and symbols
 - a. Be aware that many Greek symbols may appear to be standard text. (For example, "p" is actually the Greek letter rho and not the letter "p". Likewise, "a" is alpha, not the letter "a".)
3. Equations and formulas

- a. They are often italicized within the text
- b. You may have taken these as pictures during the ABBYY process
4. Superscript and subscripts (**excluding footnotes/endnotes**)
 - a. Example: Superscript A^1 , Subscript B_2
 - b. Often will appear as A1 or B2 in the text.
 - c. These must be MathTyped, cannot be formatted in Word
5. Chemical compounds/reactions/molecules with sub and super scripts should be taken as MathType
 - a. The letters of the chemicals should be taken as "Text" within MathType while the rest is taken as "Math" in MathType.
6. Something you aren't sure of?
 - a. Ask a coworker or Lab Coordinator for help

How to MathType

1. Open MathType
 - a. Go to the MathType tab and click on "Inline" in the top left corner.
 - b. Use the shortcut Ctrl+Alt+Q
2. This window should appear, where you can type the equation/symbol



- a.
- b. Do not close MathType immediately out of fear. Take some time to click through everything and become familiar with each tab. Ask questions if you are unsure what something is or if you can't find what you are looking for.
3. Important MathType Rules

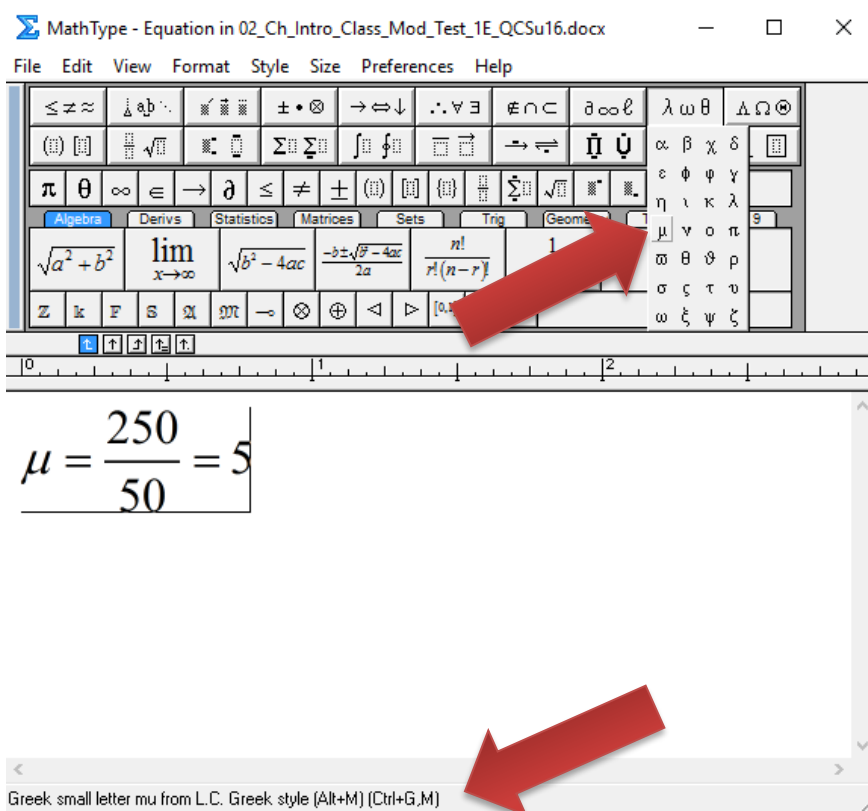
- a. If the equation you are typing contains words as well as math operators, take the words as “Text”, and the math operators as “Math”
 - i. If words are taken as “Math” CAR will read it letter by letter
 - ii. This also applies to elements in a chemical model
- b. For each new line, make a new equation. If you hit enter from within MathType, it will look right in Word, but not in CAR.
 - i. After you complete one line exit MathType press enter and open MathType again to make the new line of equation.

4. Shortcuts for MathTyping more quickly

Shortcut	Result	Shortcut	Result
Ctrl + Alt + Q	Open new MathType equation	Ctrl + L	Subscript b_2
Ctrl + Shift + =	Style: Math	Ctrl + K, T	Multiplication symbol (\times)
Ctrl + Shift + E	Style: Text	Ctrl + Shift + K, .	Multiplication symbol dot (\cdot)
Ctrl + (Parenthesis Pair $()$	Ctrl + R	Square Root $\sqrt{\quad}$
Ctrl + [Bracket Pair $[\]$	Ctrl + K, <	Less than or equal to \leq
Ctrl + F	Fraction $\frac{x}{y}$	Ctrl + K, >	Greater than or equal to \geq
Ctrl + H	Superscript a^1	Ctrl + G, [first letter]	Most lowercase Greek letters
		Ctrl + G, Shift + [first letter]	Most uppercase Greek letters

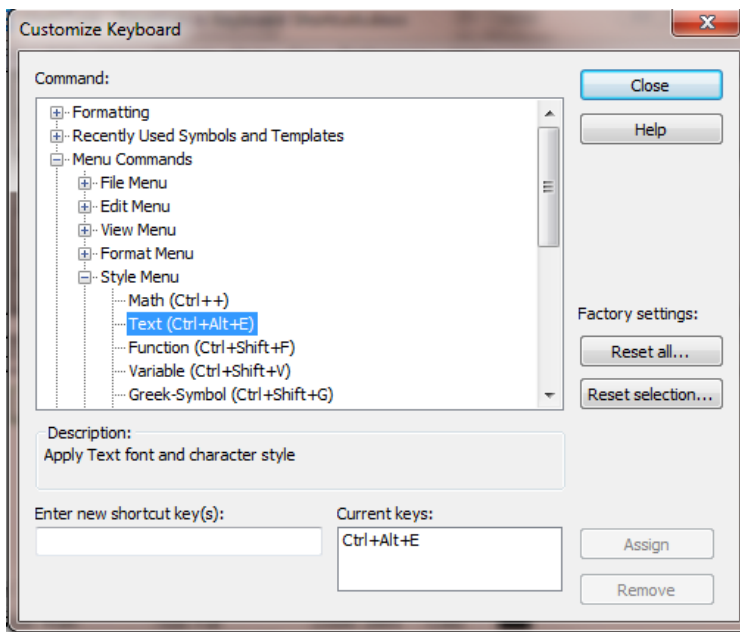
5. How to find out new shortcuts:

- Find and mouse over the desired symbol in the toolbar
- Look at the bottom left of the window for the shortcut
- The example below has two possible shortcuts



6. How to add/change keyboard shortcuts for MathType:

- In MathType box
 - Click Preferences Tab, Customize Keyboard
 - Find desired symbol
 - "Recently used" is a great resource to be able to find recently and frequently used symbols
 - Click on symbol/command you want to add shortcut for
 - Click in "Enter new shortcut key(s):" box
 - Use your Keyboard to type the shortcut you want to use
 - Check to make sure the shortcut you want to use isn't already assigned to something else
 - It could take a couple of tries to find one that works
 - Click assign shortcut



7. For more help with MathType, see supervisor or a more experienced member of the lab.

*****Remember MathType isn't as bad as it looks******

Tips and Tricks

1. If you make a mistake you can click into the equation that you just typed and make changes
 - a. You don't have to delete and start over
2. You can copy and paste an equation from word into MathType, so you don't have to type as much
 - a. Make sure to get rid of extra spaces that appear when you do this or CAR will read "Error" for every space.
3. Every time you exit MathType and your new equation appears it puts an extra space at the end so make sure to hit the backspace
4. If you open and close MathType without typing an equation MathType will still insert something in the spot your cursor was.
 - a. Just press backspace a couple of times to delete this box.