

Convert Imperial to Metric Units
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By Roger Gagon

When you travel outside the United States, you quickly notice that the U.S. is unique, at least in one way. In other countries a street sign gives the distance to town as three kilometers. You walk into the grocery store and buy a liter of milk. You overhear a local farmer buying seed for his eight hectares of land.

Because the United States has been slow to adopt the metric standard used by the rest of the world, writers often need to provide both Imperial measurements and metric equivalents. Thanks to Bruce Hallock's winning macro in this year's Best Shot contest, included here as METRIC.WPM (along with a 6.x version of the macro written for this article), this conversion process is no longer a drudgery. You can type your Imperial measurement, such as 25 miles, block the Imperial measurement, run the macro and have the metric equivalent (40.2 kilometers) inserted immediately after the Imperial measurement.

Supported Conversions

The macro provides a variety of conversions from Imperial measurements to their metric equivalents, including miles to kilometers, feet to meters, pounds to kilograms and degrees Fahrenheit to degrees Celsius (see Table 1 below).

Of course you're not limited to these conversions. With a basic knowledge of macros and using a metric conversion table, you should have no problem adding some of your own conversions to the macro. If you include primary metric measurements in your writing, you may also want to add all of the metric to Imperial conversions.

Using the Macro

Before you run the macro, type your Imperial measurement using any one of the formats shown in Figure 1 below. Periods can also be used with the abbreviated formats. The macros don't recognize (") for inches, (') for feet or (°) for degrees, so you'll need to use a valid format from the list in Figure 1.

Let's say that you typed 25 miles. For the macro to insert the conversion in the correct location, you always need to block from left to right, so move your cursor to the 2 in 25. Press Block (Alt-F4) and block to the end of the word "miles." (It doesn't matter if you block an extra space or two after miles.) To run the macro, press Macro (Alt-F10), type "metric" and press (Enter).

You'll be asked how many decimal places you want included in the conversion. Press the desired number, then press (Enter), and the macro inserts 40.2 kilometers in parentheses immediately after 25 miles. The macro drops any decimal places beyond the number you specify. (It doesn't round up if the last digit is greater than 5.)

You'll want to be aware of a few things when you run the macro:

- If you are converting a measurement from inches, when you run the macro you'll be asked if you want the conversion expressed in meters, centimeters or millimeters.

- When converting large numbers, you can use commas as thousands separators (for example, 8,250 feet).
- The macro allows you to use decimal places in the original numbers for all conversions.

| Imperial | Metric |
|--------------------|---------------------|
| Acres | Hectares |
| Cubic feet | Cubic meters |
| Cubic inches | Cubic centimeters |
| Cubic yards | Cubic meters |
| Degrees Fahrenheit | Degrees Celsius |
| Feet | Meters |
| Gallons | Liters |
| Inches | Centimeters |
| Inches | Meters |
| Inches | Millimeters |
| Miles | Kilometers |
| Miles per hour | Kilometers per hour |
| Ounces | Grams |
| Pints | Liters |
| Pounds | Kilograms |
| Quarts | Liters |
| Square feet | Square meters |
| Square inches | Square centimeters |
| Square miles | Square kilometers |
| Square yards | Square meters |
| Tons | Metric tons |
| Yards | Meters |

Table 1

| | | | |
|-------------------|--------------------|-----------|------------|
| inch | inches | in | |
| square inch | square inches | sq in | |
| cubic inch | cubic inches | cu in | |
| foot | feet | ft | |
| square foot | square feet | sq ft | |
| cubic foot | cubic feet | cu ft | |
| yard | yards | yd | yds |
| square yard | square yards | sq yd | sq yds |
| cubic yard | cubic yards | cu yd | cu yds |
| mile | miles | mi | |
| square mile | square miles | sq mi | |
| mile per hour | miles per hour | mph | |
| ounce | ounces | oz | |
| pound | pounds | lb | lbs |
| ton | tons | short ton | short tons |
| gallon | gallons | gal | gals |
| quart | quarts | qt | qts |
| pint | pints | pt | pts |
| acre | acres | ac | |
| degree | degrees | deg | |
| degree Fahrenheit | degrees Fahrenheit | degree F | degrees F |

Figure 1