Mathcad 14 Enhancements:
From PTC Express:

New Number Format Tab on 2D Graphs

A **Number Format** tab has been added to the 2D graph formatting dialogs, so that you can set the decimal place of ticks and results generated by Mathcad for more displayed accuracy on plots. As with all other plot format features, these settings only affect the 2D graph to which they are applied, unless you make them the default settings.

![Formatting Currently Selected X-Y Plot](image)

**Example**

The graph below looks fine:

\[
y(X) := X
\]

\[
X := 0, 0.1 .. 2
\]

Note the range….

0 to 2 in increments of .1 (point one).
Now zoom in by typing in some axis limits. (1.42 to 1.57 in the Y direction and 1.43 to 1.57 in the X direction) Note that the axis limits on x and y are not quite the same if you click on the graph. The graph still looks fine since the plot crosses at 1.5 and 1.5.

Now turn off the auto grid, and force 4 grids. Now the graph does not display correctly! At x = 1.5, you should still see y = 1.5.
The graph seems to display inaccurately, but this inaccuracy is due to the rounding of the tick marks on the axes. While Mathcad divides each axis into 4 intervals, the ticks appear unequally spaced because the limits are different between the two axes. The second tick mark on each axis actually occurs at:

x axis:

\[(1.57 - 1.43) \cdot \frac{2}{4} + 1.43 = 1.5\]

y axis:

\[(1.57 - 1.42) \cdot \frac{2}{4} + 1.42 = 1.495\]

Unfortunately, the difference is so small that it disappears when Mathcad rounds the ticks to two significant figures. 1.495 rounds up to 1.5, which leads to the imprecise-looking graph.

The addition of the **Number Format** tab, lets you make the tick marks more precisely. Double-click the plot to open the **Formatting X-Y Plot** dialog. Choose the **Number Format** tab, then set the Number of Decimal Places to 3 as below. When Mathcad redraws the graph, the grid lines don't move, but their values are reflected more accurately.