LynxCalc beta 0.80 Copyright 2001

Copyright Notice and legal stuff
If you like this program and find it useful, you are welcome. It was fun to muck about with Visual Basic (though I still prefer Pascal over Basic any day) and I learned a few things. I don't really consider this as "work" so I don't mind giving it out free. Heck, if you want the source code, I'll e-mail it to you. I don't hold copyright over it, but if it turns up for sale or I find out you made money off of it, tell me how. If you are particularly impressed and do want to send me money, use the address below.

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LynxCalc for Windows 9x/NT4/2000/ME

Requirements:
A wintel compatable computer, running Windows 9x/NT4/2000/ME
* LynxCalc was developed on a PIII-800 with 128 megs RAM.

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Installing the Program

If you are reading this, you've installed the program.

Why it exists

LynxCalc was created out of a desire to have a project to do in Visual Basic 6.0 that was a)somewhat practical and b) challenging. I read in a letter to an old Garden Railways magazine someone requesting a method for calculating zooms on a photocopier when you have plans in one scale and want them in another. I originally used it as an excuse to write a program on my web site in JavaScript, but found it was a pretty limited program (and I got bored with JavaScript).

What it does

LynxCalc calculates a process for copying plans from one scale to the other, taking into consideration most photocopiers can only zoom from 50% to 200%, where as some copies require outside of this range.

1. Select the scale of the plans you have
2. Select the desired scale
3. Enter in the upper or lower zoom limit of your copier (depending on if you are enlarging or reducing). The precision of the process depends on ho many decimal places you type in.
4. The results are listed as the number of passes on a copier you will need to make at a zoom factor in the range of the copier.

eg: to scale plans from HO scale to 1:20.3 the zoom factor is 435%. Entering in an upper zoom limit of a copier at 200% means you should set the copier at 163% and make 3 passes (enlarge the plans 163%, then take the enlarged plans and enlarge them 163%, then enlarge those at 163%. The result should be a 435% enlargement)

5. The program also calculates the minimum error in enlargement if your copier only zooms in increments of 1 instead of fractional (which I'm guessing most copiers don't).

How it works

The calculations are actually pretty simple:
eg: Say you want to copy from 1/87 (HO) to 1/20.3 (Big). To calculate the % zoom it is

87/20.3 x 100% = 428.5714%

If you want to figure out the number of passes to fit less than say 200%, then start taking roots
the first root of 4.285714 = 4.285714 (428.5714%)
the second (square) root of 4.285714 = 2.0702 (207.02 %)
the third (cube) root of 4.285714 = 1.6243 or 162.43% zoom

this means that 1.6243 x 1.6243 x 1.6243 = 4.285714 (or thereabouts)

Some Tips

Note that I say the minimum error in copying. I don't believe one brand of copier is more accurate than another and when you copy at 67% you might actually get 67.9 % or 66.5% as a result. Try copying a ruler first as a test (a scale ruler would work really well).

How you can modify it

All of the scale data is in the file lynxcalc.ini. If you will never need a scale, take that line out and move the next lines up (please don't leave a line blank as it will really mess up the program)
If you need a scale I haven't listed, add in a line in the form:

1/[factor]=[name of scale] **(**where factor is the scale ratio)

eg:
1/87= HO Scale

Note: The program isn't smart enough to interpret scale data like "9mm" or "3/8 = 1foot" or even "3/8". It has to be 1/(something).