

ANSI Z1.4 Random Number Generator

This software is being distributed freely with no guarantees or warrants.

The program is intended for use in conjunction with ISO, ASQC and ANSI standards and tables.

The program itself is in simple Microsoft® VBA and can be disassemble, although it is not recommended.

MTC Engineering Legal junk:

All reasonable precautions have been taken to ensure no viruses are present in this programs script or modules. As our company cannot accept responsibility for any loss or damage arising from the use of this program or attachments, we recommend that you subject all new files to your virus checking procedures prior to use.

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Additionally:

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System Requirements:

Windows 7©® (recommended), but can use XP or newer.

Microsoft Office® 2007 or Newer or Excel Revision 11 or newer.

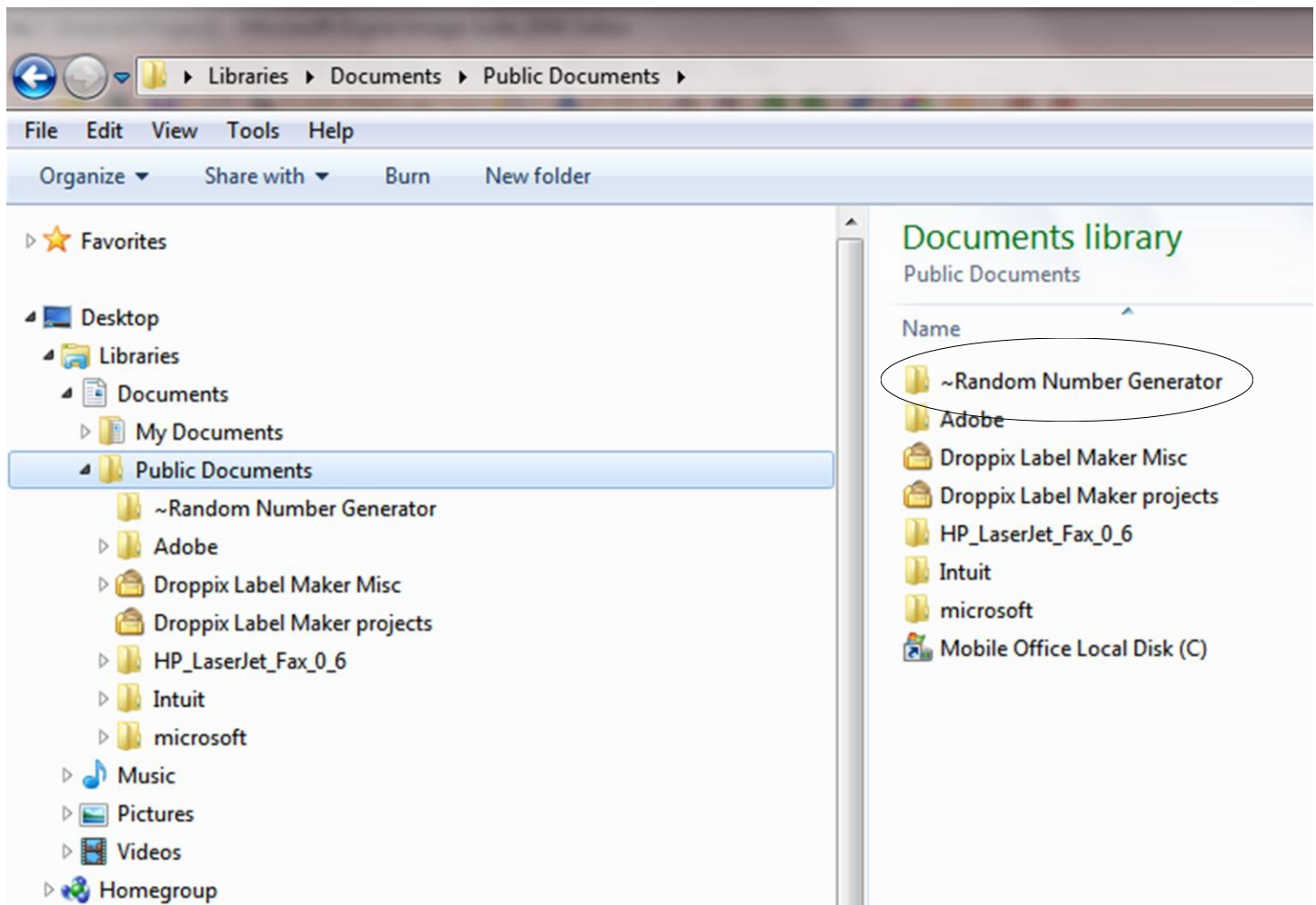
WinZip®

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Getting Started –

DO NOT OPEN YOUR OFFICE PROGRAM UNTIL INSTALLATION AND SET UP IS COMPLETE.

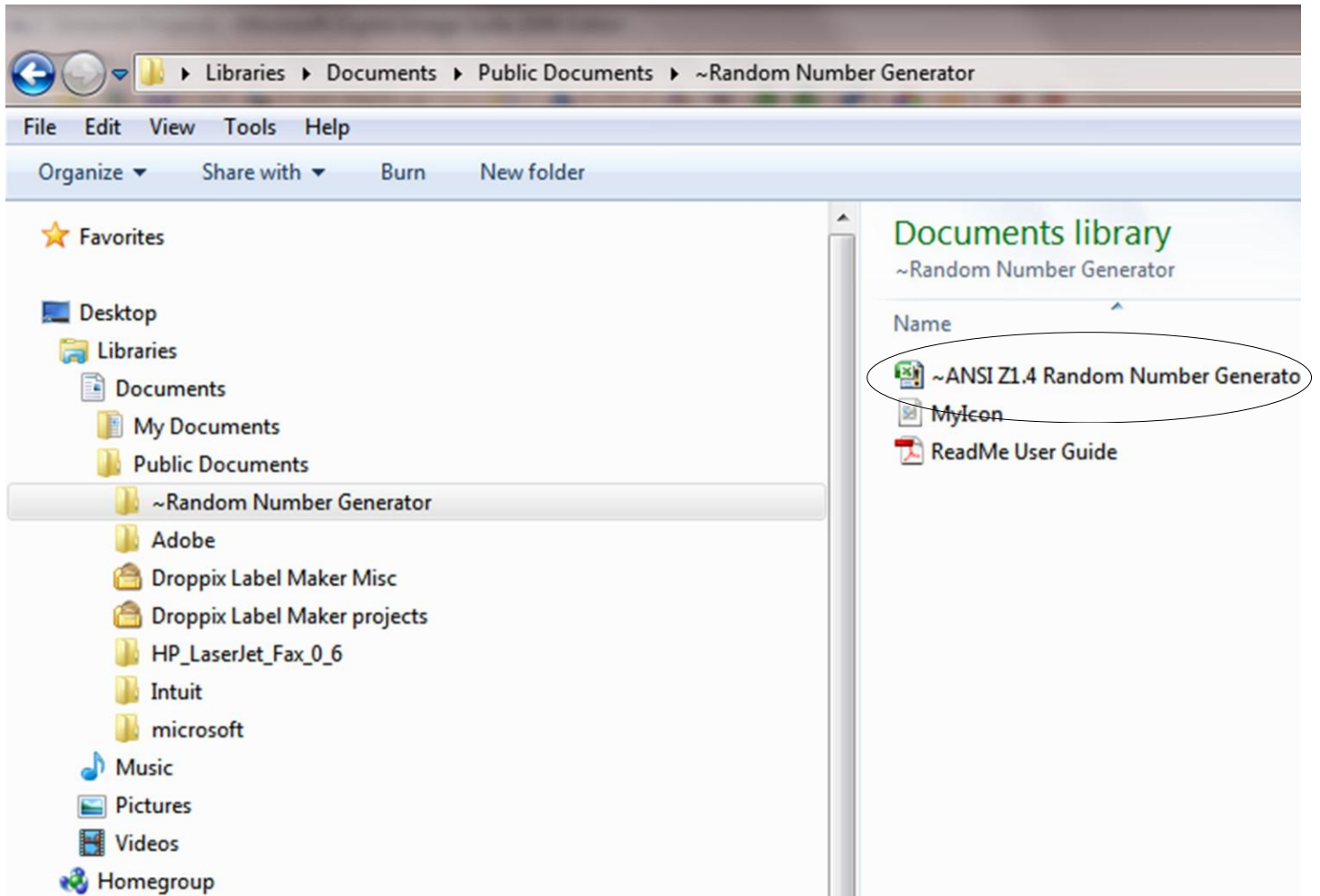
Download Zipped file to your “My Documents” folder, if you’re not sharing and in the “Public Documents” folder if you intend to share on a network, then unzip as shown:



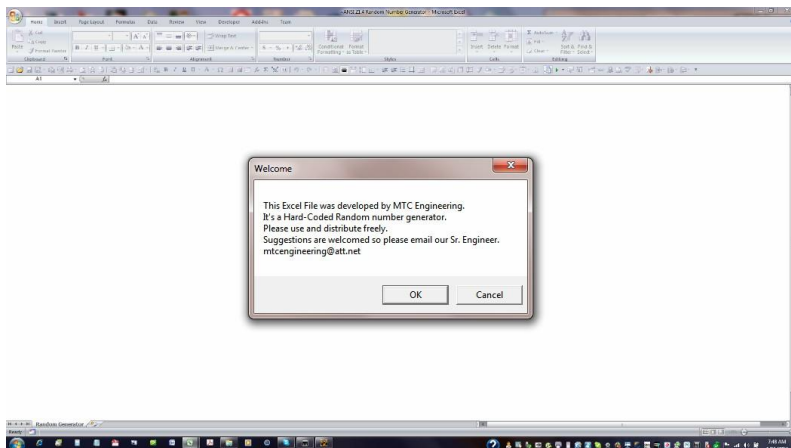
Once unzipped and you’re ready for the next step, double-click the ~Random Number Generator folder to open the folder.

It should appear as follows:

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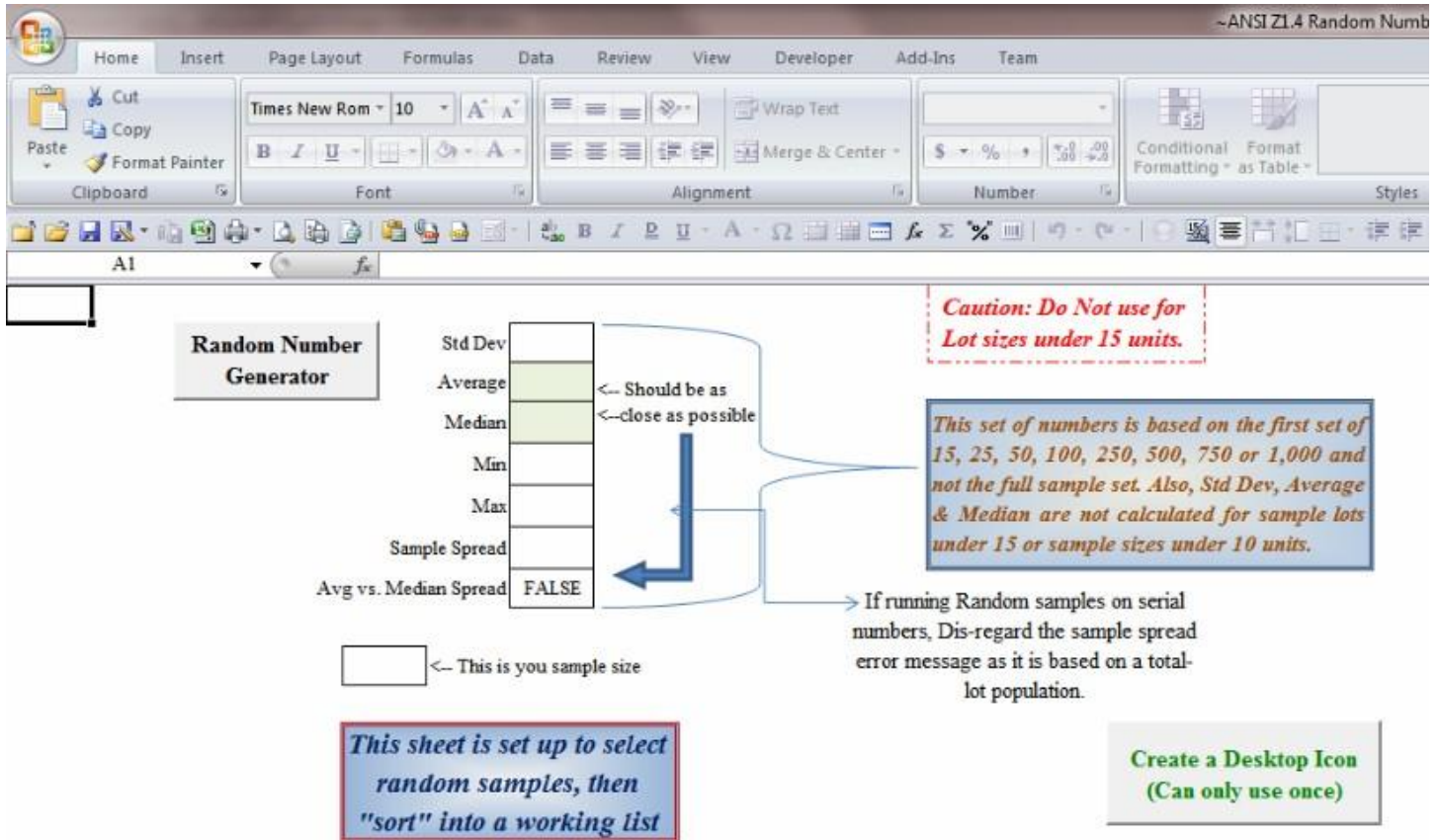


Next, double click the Excel icon/program. (An intro screen will appear.)



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The excel workbook will then appear as follows:



Setting up the office environment

This section may or may not be applicable.

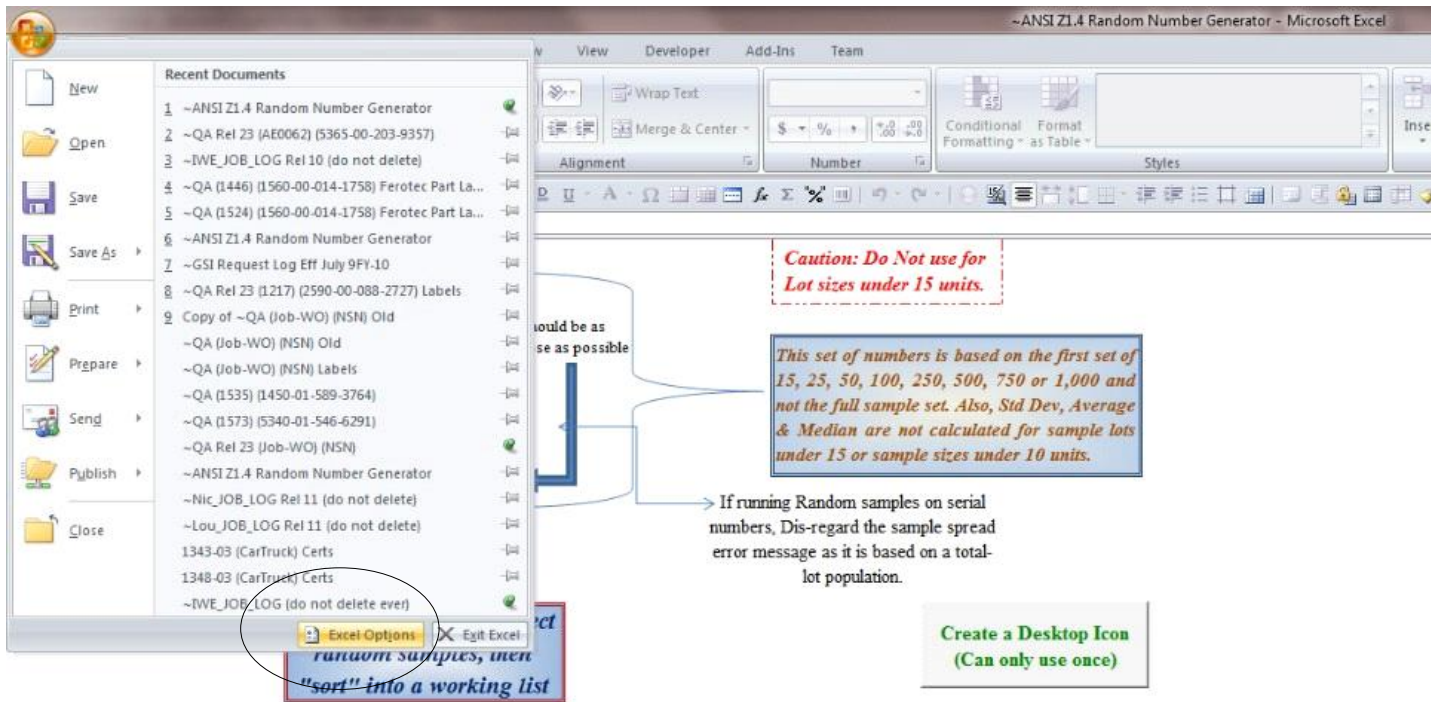
If your Office program is already "Macro Enabled", then skip to Using the Program.

If not, we'll have to set your Office program to allow the script and macros to work in this workbook.

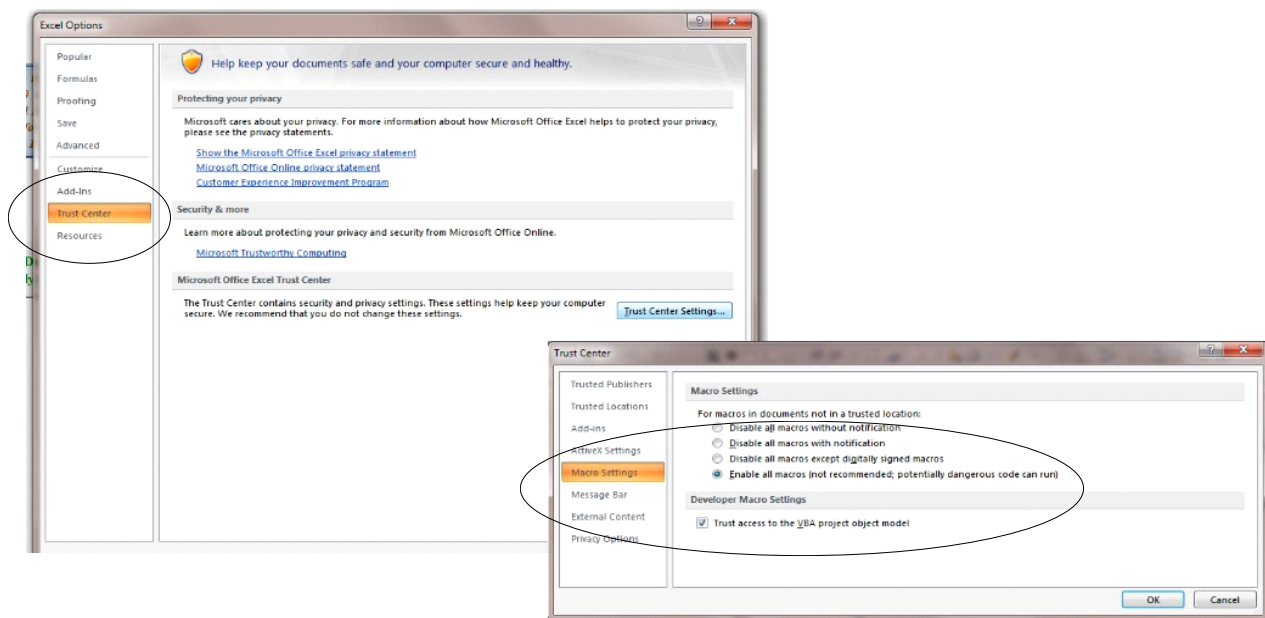
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First go to the Office upper-left logo to get to the Excel Options as shown below.



Next, open the Excel Options as shown below and next click the Trust Center Setting and select Enable Macros.



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NOTE: If you are concerned about having macros enabled, you can select option #2 and check the Developer Macro Settings box. This will notify you of any excel workbooks that contain macros and will give you the option to say yes or no.

In addition, if you're office savvy, you can add this location to your trusted locations.

Once settings have been selected, click the "OK" button and now you're ready to start using the program.

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Using the Program

Now you can click the Random Number Generator button.

The screenshot shows the Microsoft Excel interface with the "ANSI Z1.4 Random Number Generator" spreadsheet. The "Random Number Generator" button is circled in the top left. A table of statistical data is shown with a blue arrow pointing to it, indicating it should be as close as possible to the first set of numbers. A red dashed box contains a caution: "Caution: Do Not use for Lot sizes under 15 units." A blue box explains that the numbers are based on a first set of 15, 25, 50, 100, 250, 500, 750 or 1,000 and that Std Dev, Average & Median are not calculated for sample lots under 15 or sample sizes under 10 units. A text box states: "This sheet is set up to select random samples, then 'sort' into a working list". A text box explains: "If running Random samples on serial numbers, Dis-regard the sample spread error message as it is based on a total-lot population." Three dialog boxes are shown: #1 (Random Number Generation) with "Enter Population Starting Number or 1" set to 50; #2 (Random Number Generation) with "Enter Population Ending Number or Lot Size" set to 125; and #3 (Random Number Generation) with "How many random numbers would you like to generate (<15000)?" set to 20.

Random Number Generator

Std Dev
Average
Median
Min
Max
Sample Spread
Avg vs. Median Spread FALSE

← Should be as close as possible

Caution: Do Not use for Lot sizes under 15 units.

This set of numbers is based on the first set of 15, 25, 50, 100, 250, 500, 750 or 1,000 and not the full sample set. Also, Std Dev, Average & Median are not calculated for sample lots under 15 or sample sizes under 10 units.

← This is your sample size

This sheet is set up to select random samples, then "sort" into a working list

If running Random samples on serial numbers, Dis-regard the sample spread error message as it is based on a total-lot population.

#1

Random Number Generation

Enter Population Starting Number or 1

50

OK Cancel

#2

Random Number Generation

Enter Population Ending Number or Lot Size

125

OK Cancel

#3

Random Number Generation

How many random numbers would you like to generate (<15000)?

NOTE: MUST BE LESS THAN 75% of Total Population

20

OK Cancel

First you'll see popup #1, the starting number. You can leave the default (1) or if you're working with serialized items, you can enter the first serial number in #1 popup. (CAUTION: ALL ENTRIES MUST BE WHOLE NUMBERS ONLY AND WILL ERROR OTHERWISE.)

Next enter your ending number in popup box #2 and end with entering the number of sample you want to pull in the final popup box #3.

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The following screen will appear with numbers sorted in ascending order. In the center are some reference stats, but do remember what Mark Twain once said, “There are Liars, Darn Liars and Statistics.” (I cleaned it up for those with tender ears.)

Random Number Generator

Std Dev	18
Average	78
Median	78
Min	51
Max	125
Sample Spread	74
Avg vs. Median Spread	0

← Should be as close as possible

Re-run Test. Spread should be over 50%

Caution: Do Not use for Lot sizes under 15 units.

This set of numbers is based on the first set of 15, 25, 50, 100, 250, 500, 750 or 1,000 and not the full sample set. Also, Std Dev, Average & Median are not calculated for sample lots under 15 or sample sizes under 10 units.

If running Random samples on serial numbers, Dis-regard the sample spread error message as it is based on a total-lot population.

20 ← This is your sample size

This sheet is set up to select random samples, then "sort" into a working list

Create a Desktop Icon (Can only use once)

And there are your results...

Notice the green Desktop Icon button.

If you click this button, it will create a desktop icon so you can access the program directly from your desktop.

After clicking the button, it will disappear. If you click the save button, the green button will be gone forever. If you click the close button and do not click the save option, the button will re-appear – it's your choice.

Enjoy, and if you have any questions, please feel free to email me with comments.

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