

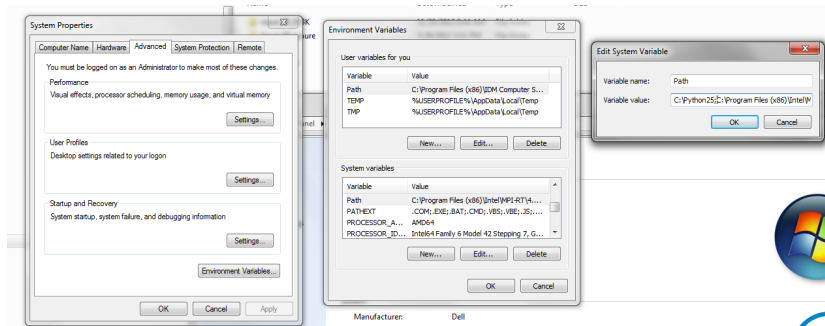
PopGen Installation Tips

PopGen version 1.1 was used to develop the 2020 MTP/SCS sythentic population for SACSIM19. PopGen version 1.1 runs on Python 2.7 and a few old or out of date site-packages. PopGen version 2.0 may work for developing a synthetic population, but has not been tested by SACOG staff. Since most of the required software packages, including Python 2.7, are out of date or no longer supported, it is important to download all the file packages from the PopGen website and build a PopGen python specific location and environment path. The Session 2_Installation.pdf from the PopGen developers provides step by step guidelines on how to do this. Below are a few tips to be aware of while installing PopGen using the Session 2_Installation.pdf instructions.

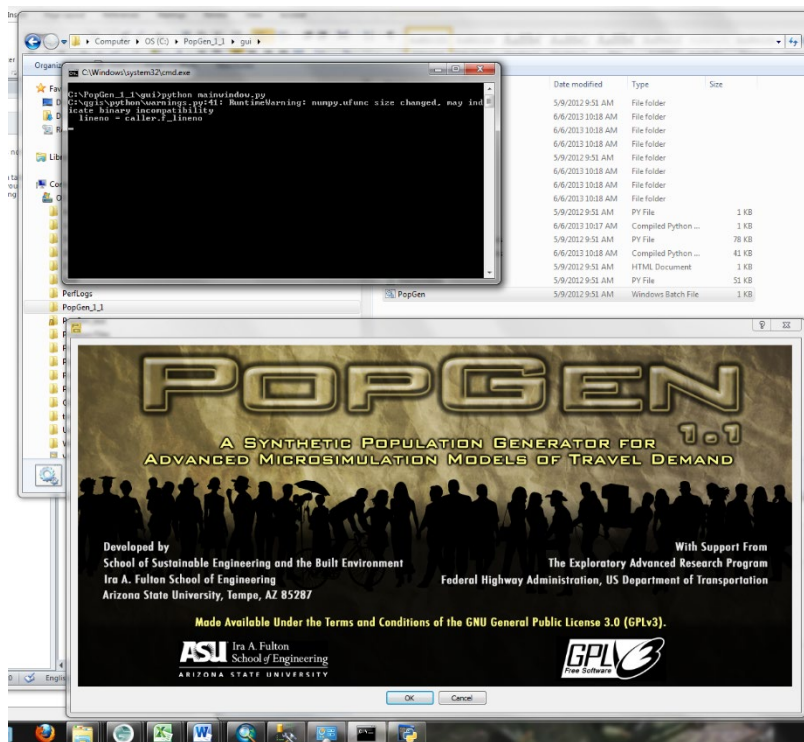
1. PopGen developers recommend removing other Python and supplementary packages to install PopGen. This may not be feasible to do on a machine that typically runs other programs using different versions of python and mysql. Workarounds include:
 - a. Build a virtual environment to run PopGen
 - b. Create a separate python and MySQL location, all environments and paths used for PopGen must be pointed to this location.
2. Uninstall previous Python 2.7 or 32 bit versions and packages used for PopGen.
3. Use pip install instead of python syntax:
 - a. `cd <my PopGen python directory>`
 - b. `pip install <path location of package>`
4. Make sure your firewalls settings are set up to run MySQL. Check with your IT staff administrator how to best set up MySQL password, hostname, username, and Port.
5. Make sure the correct python version is ran with PopGen by using one of the follow techniques:
 - a. Following Session 2_Installation.pdf system environments instructions
 - b. Update .bat file code
 - c. Run python using a python Shell to set up proper environment settings with the PopGen while running mainscript.py

Run POPGEN

1. Modify enviromental variable "path", to Python version install with PopGen and packages.



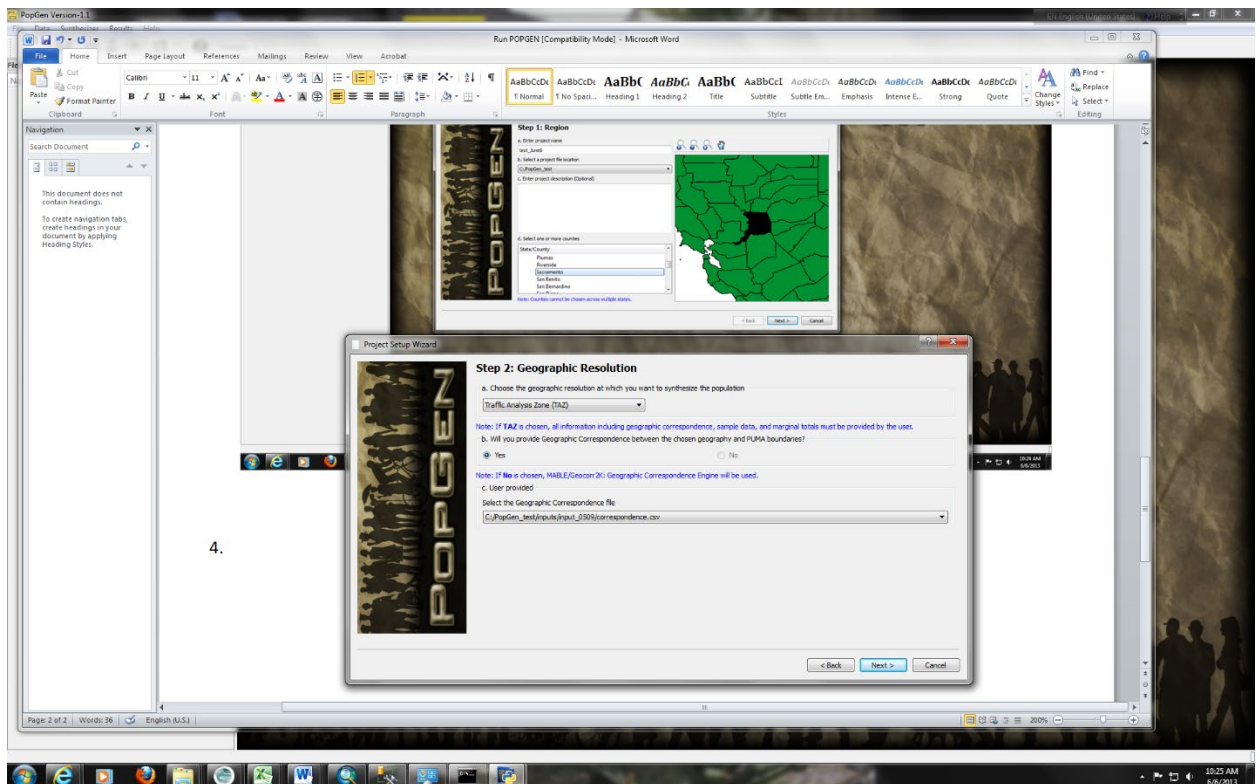
2. Go to folder C:\PopGen_1_1\gui, open PopGen



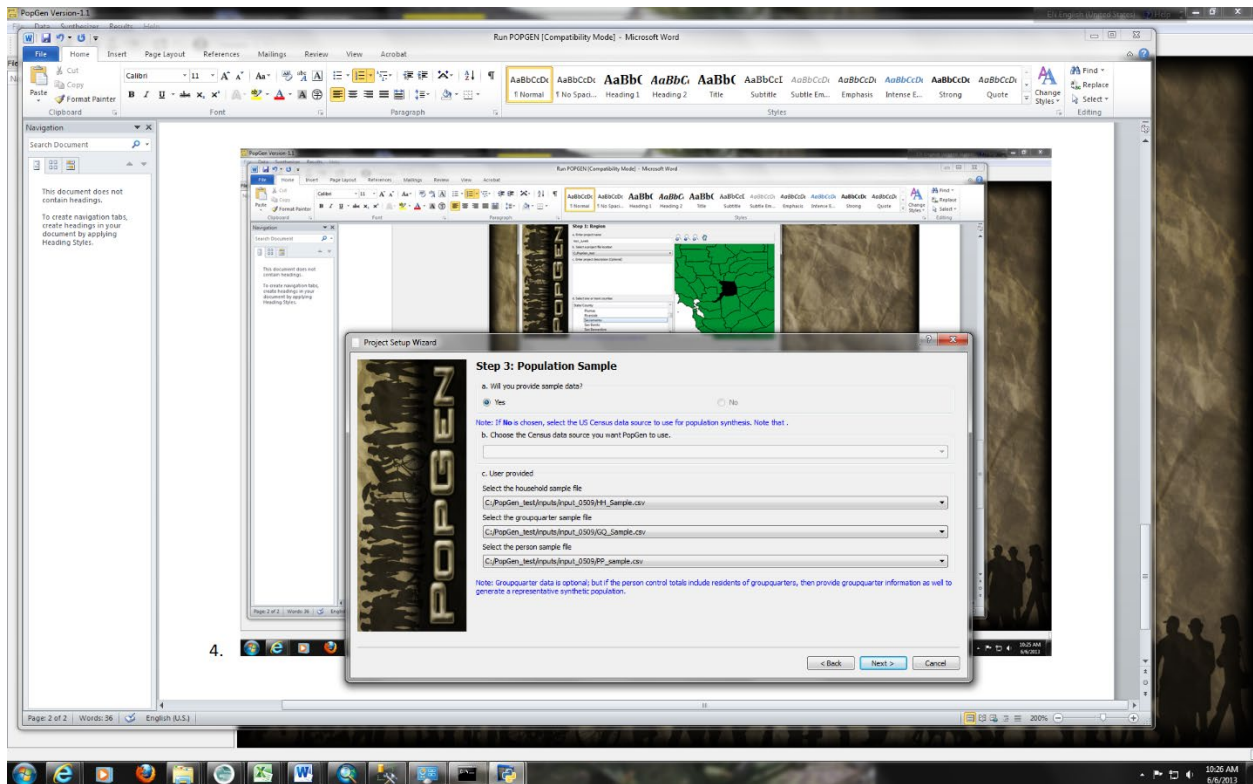
3. Click on File – New Project, type a name of project, specify project file directory, state/county



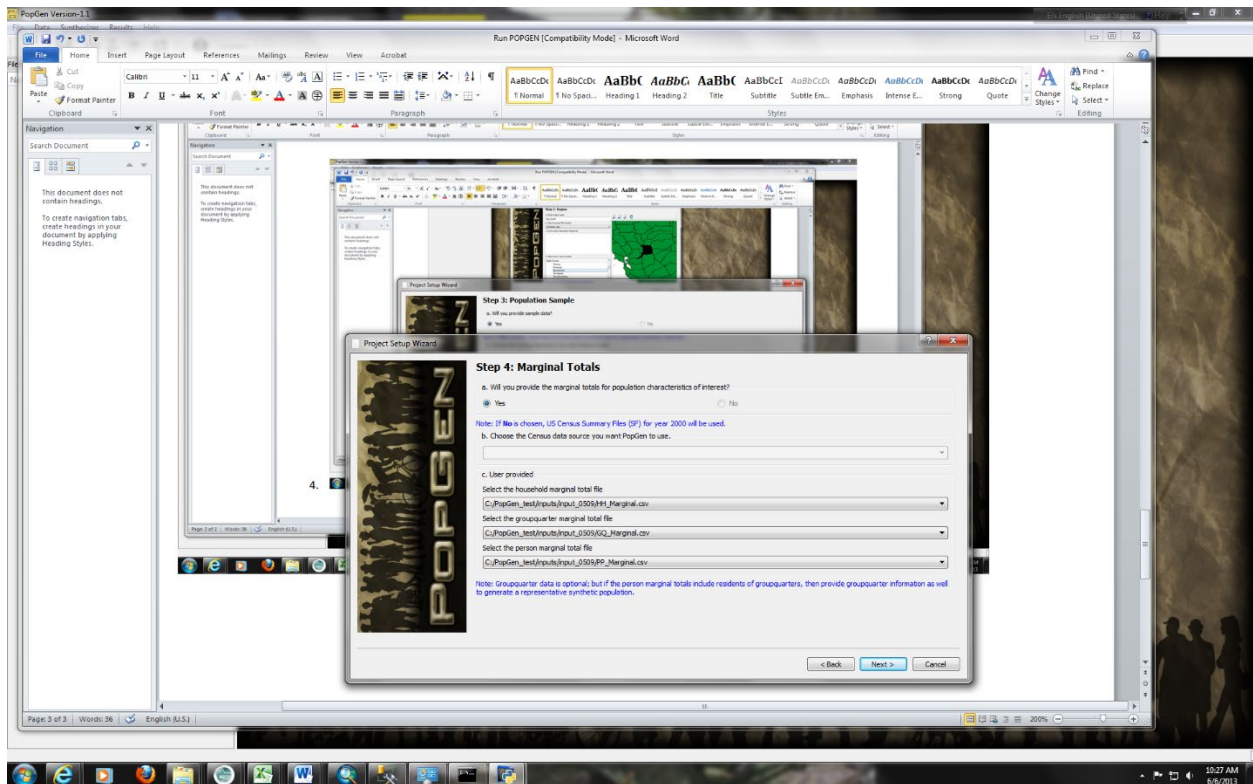
4. Specify geographic resolution (always select "Traffic Analysis Zone (TAZ)" for user defined zones"



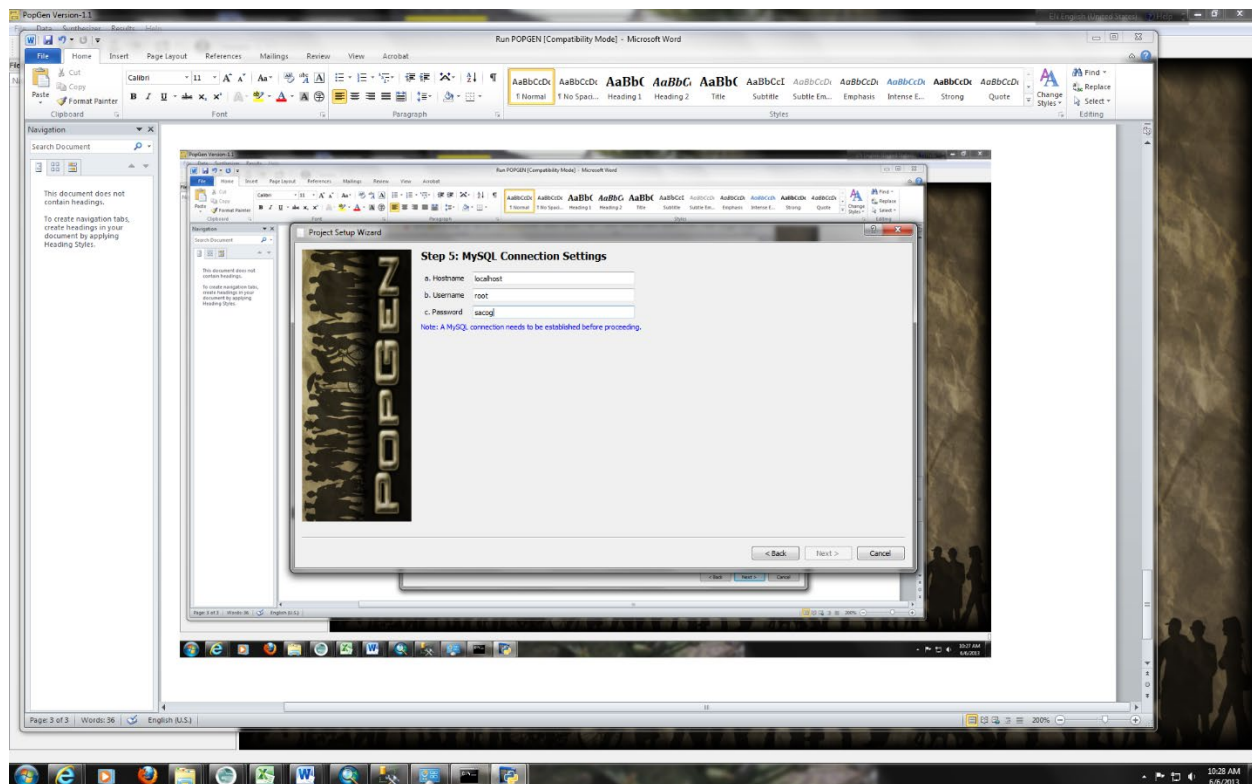
5. Specify sample file locations



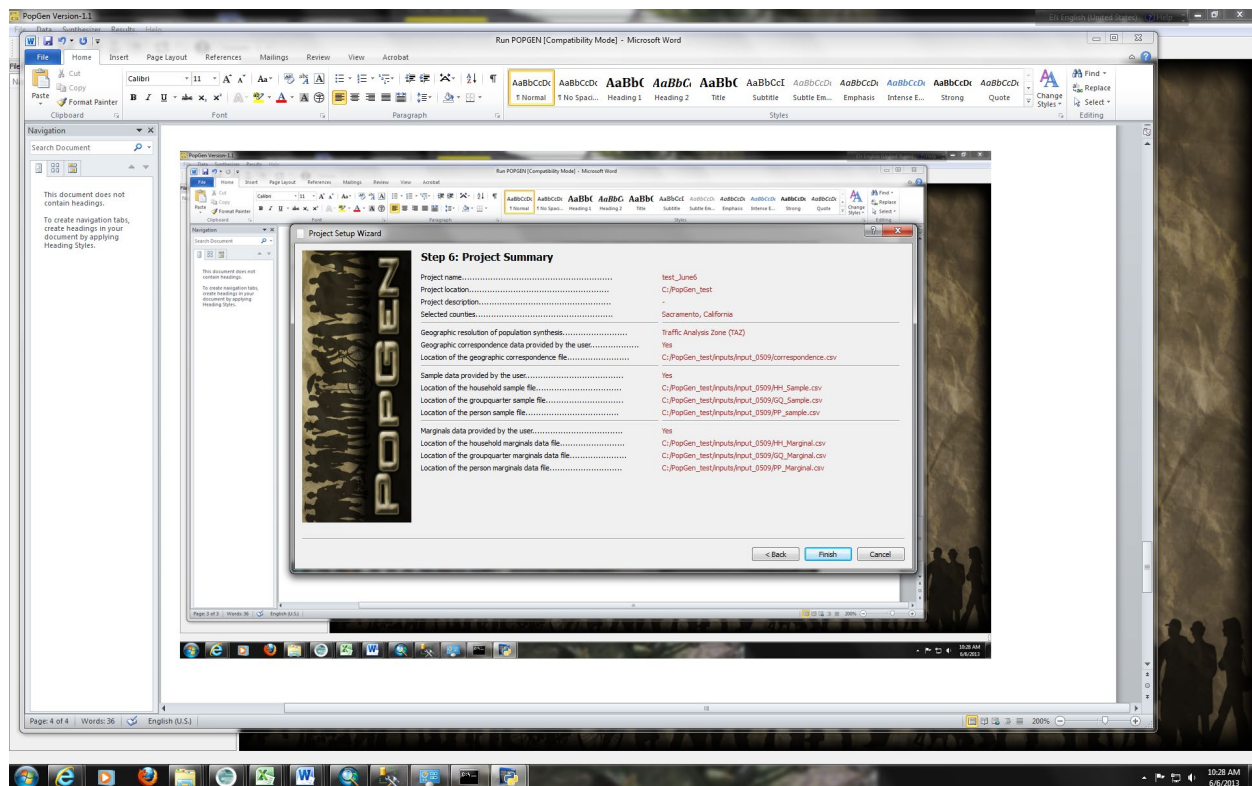
6. Specify marginal file locations



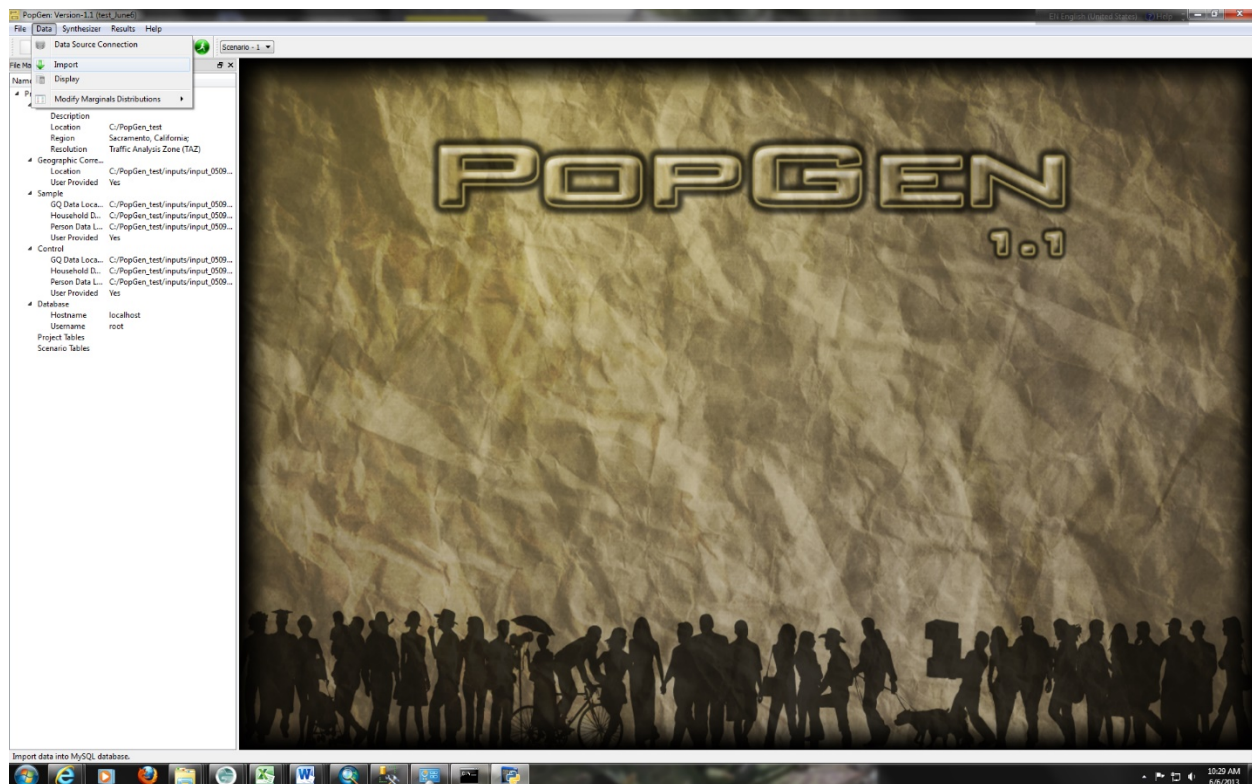
7. Type password for MySQL connection



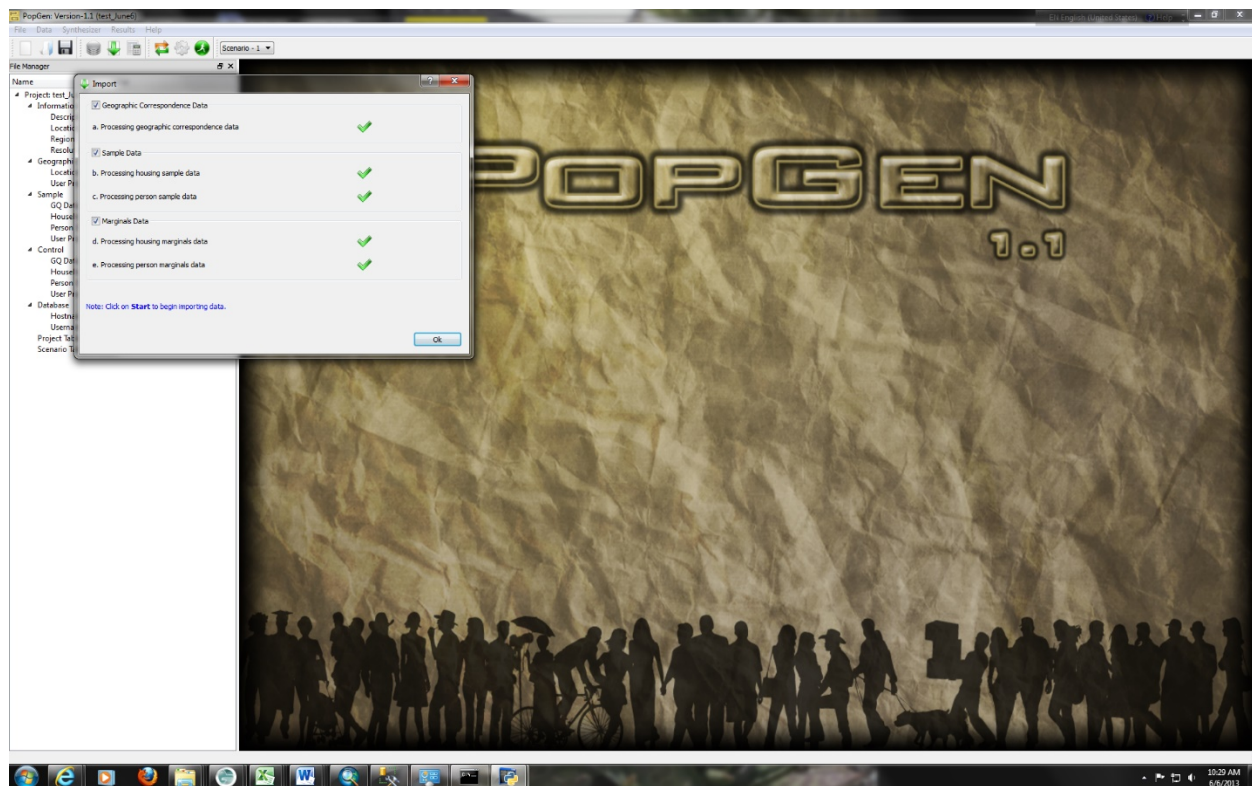
8. Click on “Finish”



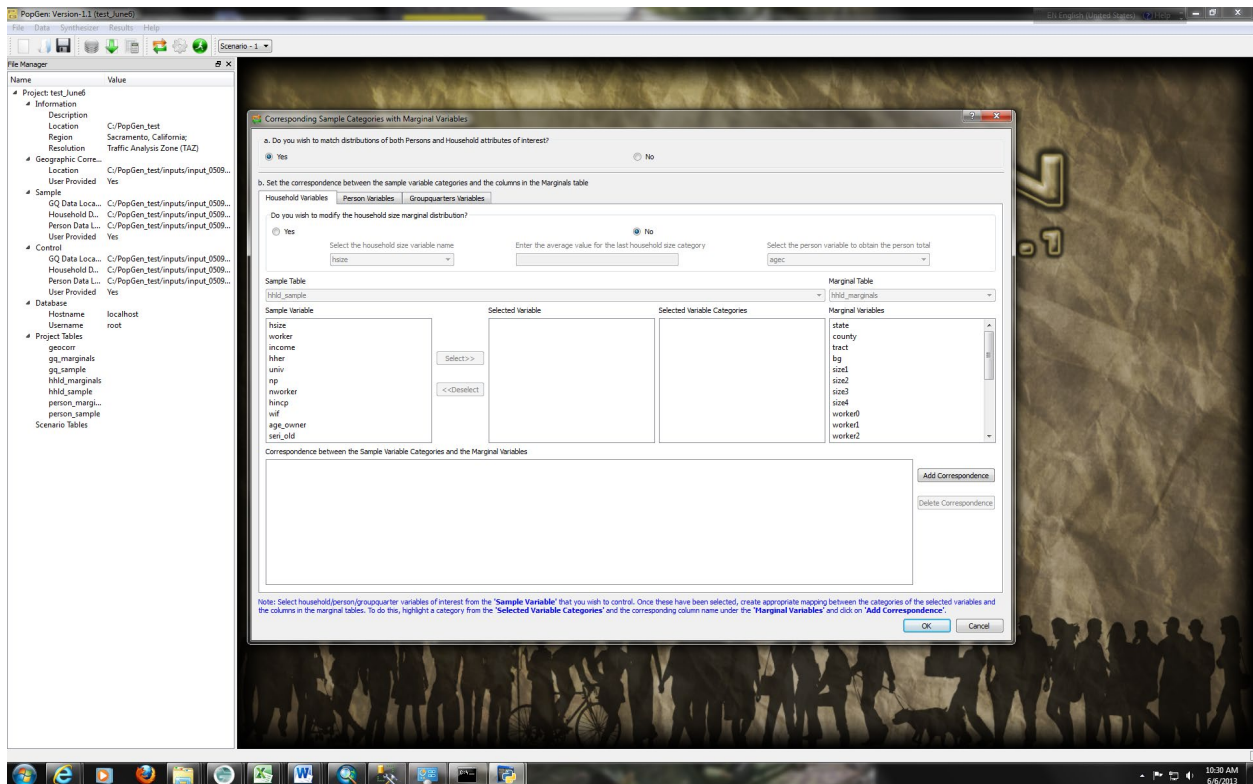
9. Click “Data – Import” to import data



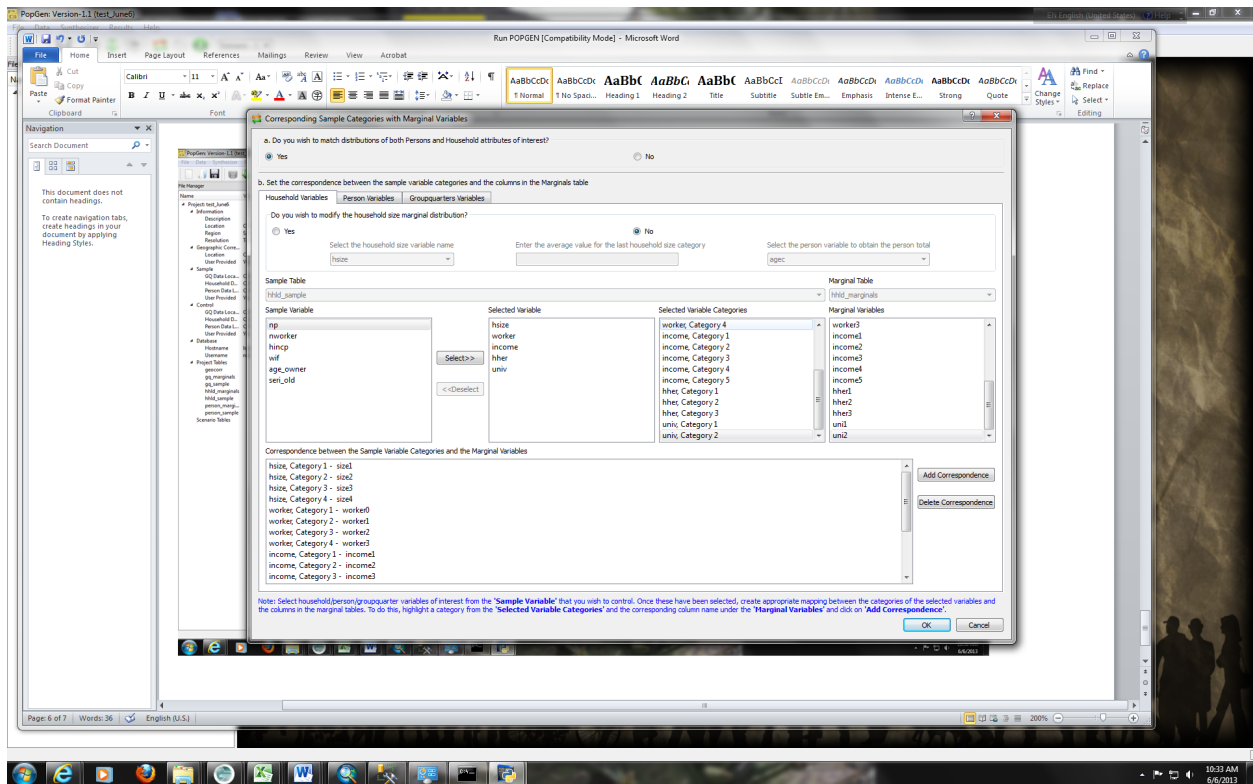
10. Green check marks means importing data successful



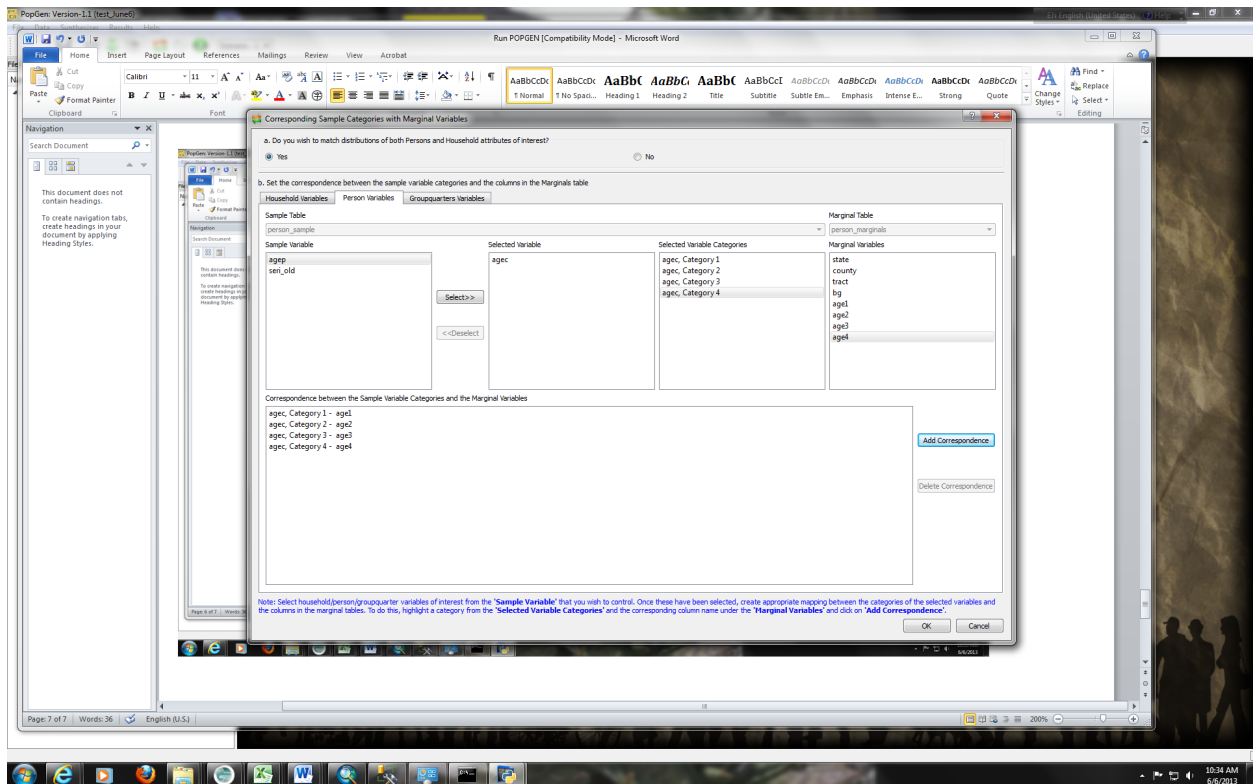
11. Click "Synthesizer – Set Corresponding Variables"



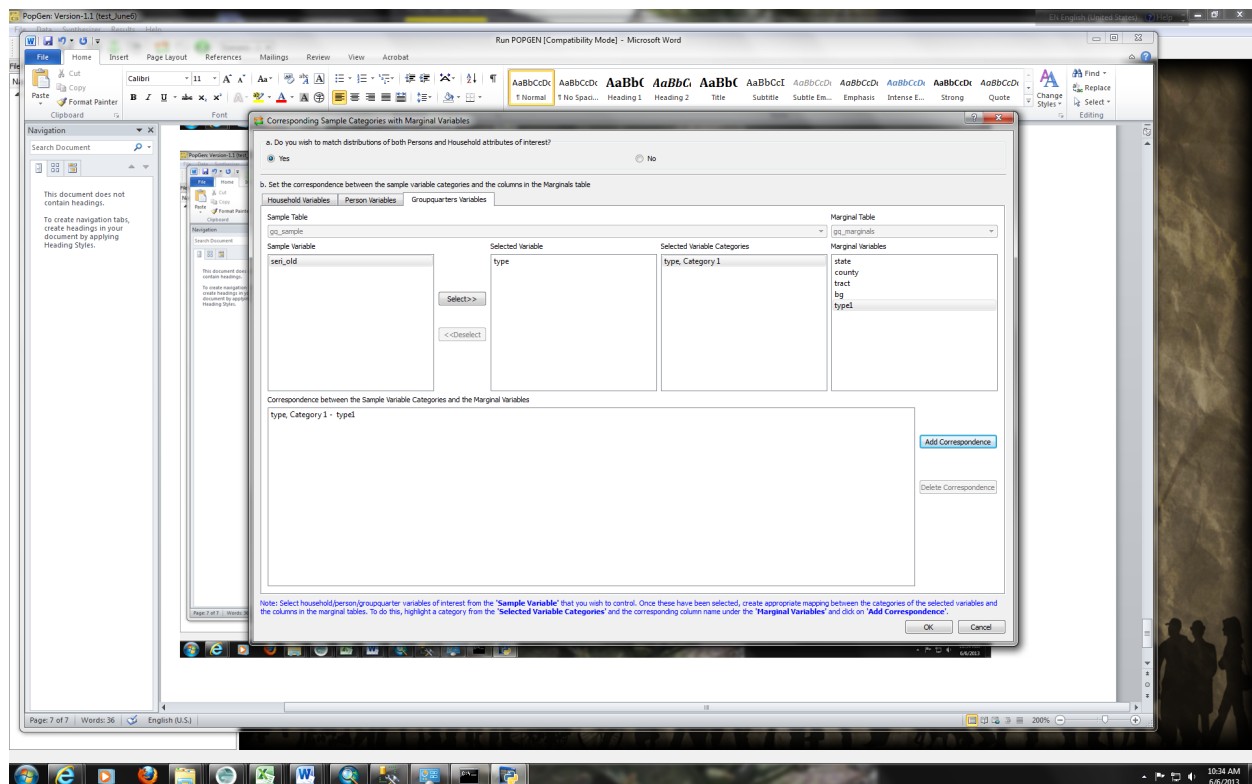
Hosehold variables



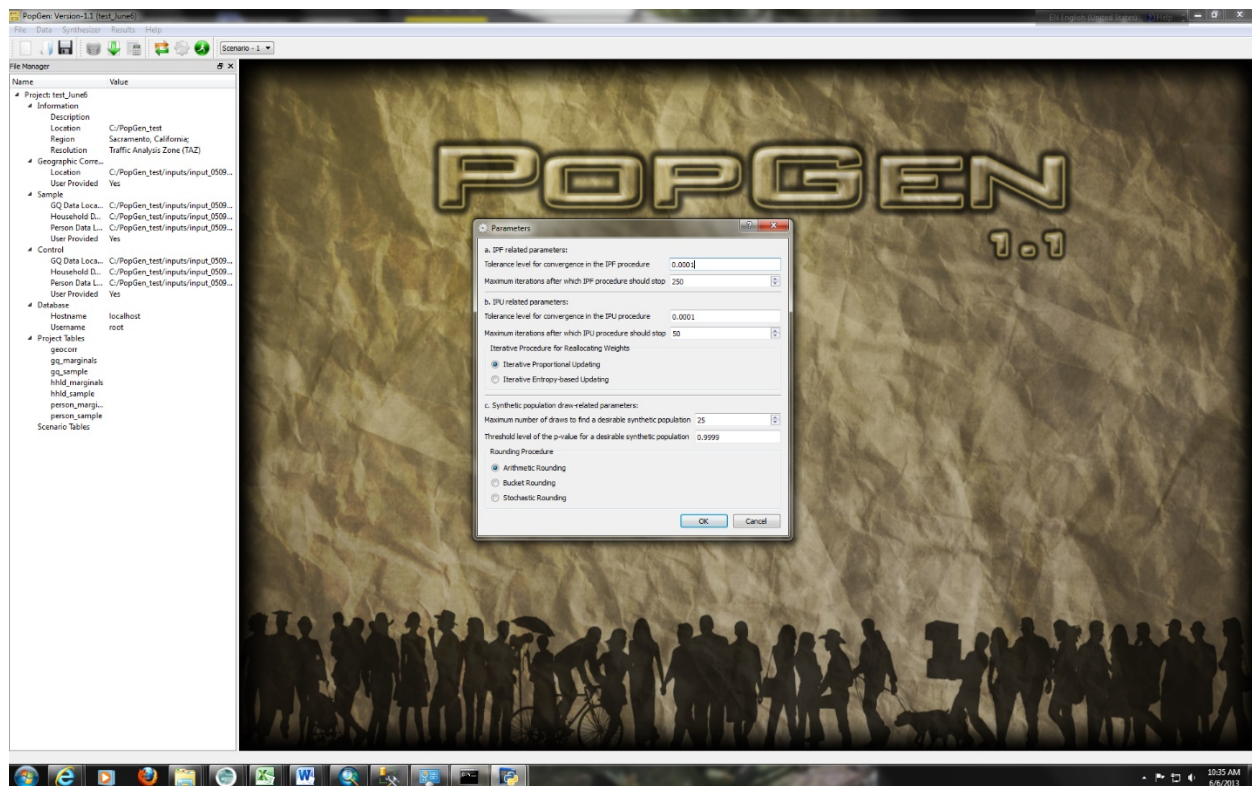
Person variables



Group Quarter variables



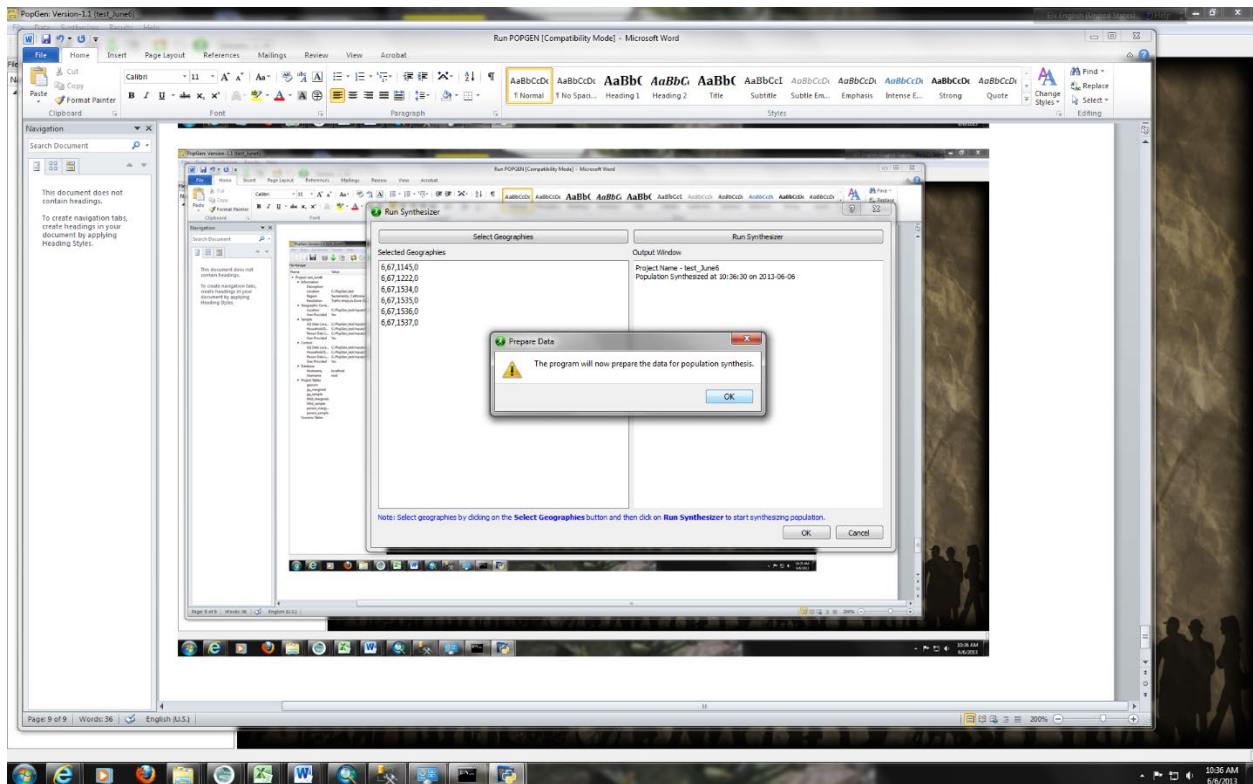
12. Click "Synthesizer – Set Parameters", use default

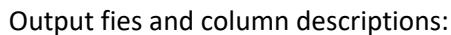


13. Click "Synthesizer – Run Synthesizer", then click "Select Geographics"



14. Click “Run Synthesizer”





The screenshot displays a Windows desktop environment with three primary applications open:

- File Explorer:** Located at the top left, it shows the directory path `C:\PopGen_test\test_june\housing_synthetic_data\meta.txt`. The left pane lists subdirectories: `column 1 - state`, `column 2 - county`, `column 3 - tract`, `column 4 - bgr`, `column 5 - hhid`, `column 6 - serialno`, `column 7 - frequency`, `column 8 - age_owner`, `column 9 - hbr`, `column 10 - hiscp`, `column 11 - hisie`, `column 12 - income`, `column 13 - np`, `column 14 - nworker`, `column 15 - neri_old`, `column 16 - neri`, `column 17 - wif`, `column 18 - worker`, and `column 19 - type`.
- Notepad++:** Opened at the top right, it displays a list of variables corresponding to the columns in the File Explorer, such as `state`, `county`, `tract`, `bgr`, `hhid`, `serialno`, `frequency`, `age_owner`, `hbr`, `hiscp`, `hisie`, `income`, `np`, `nworker`, `neri_old`, `neri`, `wif`, `worker`, and `type`.
- Microsoft Excel:** The central application window, titled `housing_synthetic_data - Microsoft Excel`. It displays a large data table with columns labeled A through T. The data includes numerical values and categorical labels (e.g., `1 W`, `2 W`, `1 W`, `2 W`, etc.) in the final column (T). The table contains 37 rows of data, with the first row (row 1) starting with a value of 1 in column A.

The Excel window also shows the standard ribbon interface with tabs for `File`, `Home`, `Insert`, `Page Layout`, `Formulas`, `Data`, `Review`, `View`, `Account`, and `Send Feedback`. The `Data` tab is currently active, showing options for `Sort & Filter`, `Advanced`, `Sort & Filter`, `Text to Columns`, `Remove Duplicates`, `Validation`, `Data Tools`, `Consolidate`, `What-If Analysis`, `Group`, `Ungroup`, `Subtotal`, and `Data Analysis`.

PopGen Version-1.1 [test June]

File Edit Search Insert Project View Format Column Macro Scripting Advanced Window Help

1 column 1 = state
2 column 2 = country
3 column 3 = tract
4 column 4 = bg
5 column 5 = hhisid
6 column 6 = serialno
7 column 7 = prsom
8 column 8 = frequency
9 column 9 = agep
10 column 10 = seri_old
11 column 11 = seri_old

Output Window

person_synthetic_data - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View Acrobat SAVEDEF

PivotTable Table Picture Clip Art Shapes SmartArt Screenshot Column Line Pie Bar Area Scatter Other Charts

Tables Illustrations Charts Sparklines Filter Links Hyperlink Text Box Header & Footer WordArt Signature Line Object Equation Symbol Symbols

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1																				
2	6	67	1145	0	33051	33051	1	1	2	28	33051									
3	6	67	1145	0	22765	22765	1	1	2	33	22765									
4	6	67	1145	0	38040	38040	1	1	2	26	38040									
5	6	67	1145	0	340	340	1	1	2	29	340									
6	6	67	1145	0	6765	6765	1	1	2	24	6765									
7	6	67	1145	0	13362	13362	1	1	2	33	13362									
8	6	67	1145	0	15770	15770	1	1	2	30	15770									
9	6	67	1145	0	25302	25302	1	1	2	26	25302									
10	6	67	1145	0	36869	36869	1	1	2	30	36869									
11	6	67	1145	0	4543	4543	1	1	2	34	4543									
12	6	67	1145	0	7822	7822	1	1	2	32	7822									
13	6	67	1145	0	11282	11282	1	1	2	33	11282									
14	6	67	1145	0	14522	14522	1	1	2	30	14522									
15	6	67	1145	0	15170	15170	1	1	2	33	15170									
16	6	67	1145	0	19747	19747	1	1	2	27	19747									
17	6	67	1145	0	21863	21863	1	1	2	28	21863									
18	6	67	1145	0	30283	30283	1	1	2	31	30283									
19	6	67	1145	0	32052	32052	1	1	2	29	32052									
20	6	67	1145	0	33837	33837	1	1	2	26	33837									
21	6	67	1145	0	40103	40103	1	1	2	31	40103									
22	6	67	1145	0	7759	7759	1	1	2	27	7759									
23	6	67	1145	0	23247	23247	1	1	2	31	23247									
24	6	67	1145	0	27357	27357	1	1	2	29	27357									
25	6	67	1145	0	28690	28690	1	1	2	33	28690									
26	6	67	1145	0	30358	30358	1	1	2	34	30358									
27	6	67	1145	0	33324	33324	1	1	2	28	33324									
28	6	67	1145	0	38085	38085	1	1	2	26	38085									
29	6	67	1145	0	9795	9795	1	1	2	34	9795									
30	6	67	1145	0	9002	9002	1	1	2	29	9002									
31	6	67	1145	0	15277	15277	1	1	2	30	15277									
32	6	67	1145	0	18877	18877	1	1	2	31	18877									
33	6	67	1145	0	19174	19174	1	1	2	30	19174									
34	6	67	1145	0	21171	21171	1	1	2	34	21171									
35	6	67	1145	0	21234	21234	1	1	2	26	21234									
36	6	67	1145	0	32915	32915	1	1	2	34	32915									
37	6	67	1145	0	34417	34417	1	1	2	31	34417									

Ready | Scroll Lock

Ln 1, Col 1, C0 DOS Mod 6/6/2013 10:41:22 AM File Size 215 INS C:\P

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