

Visual Guide on Running SEQSIM on Windows System

1. Programs needed on your system:

- Microsoft Visual Studio or similar integrated development environment (IDE)
 - C++ Packages in the IDE

2. Preparation of Input File

- SEQSIM accepts “.txt” or “.CSV” formats.
 - All sequences need to be the same nucleotide length. In our example, we used a length of 2000 nt.
1. SEQSIM will automatically omit any sequences that contain nucleotides other than ATCG from its analysis.

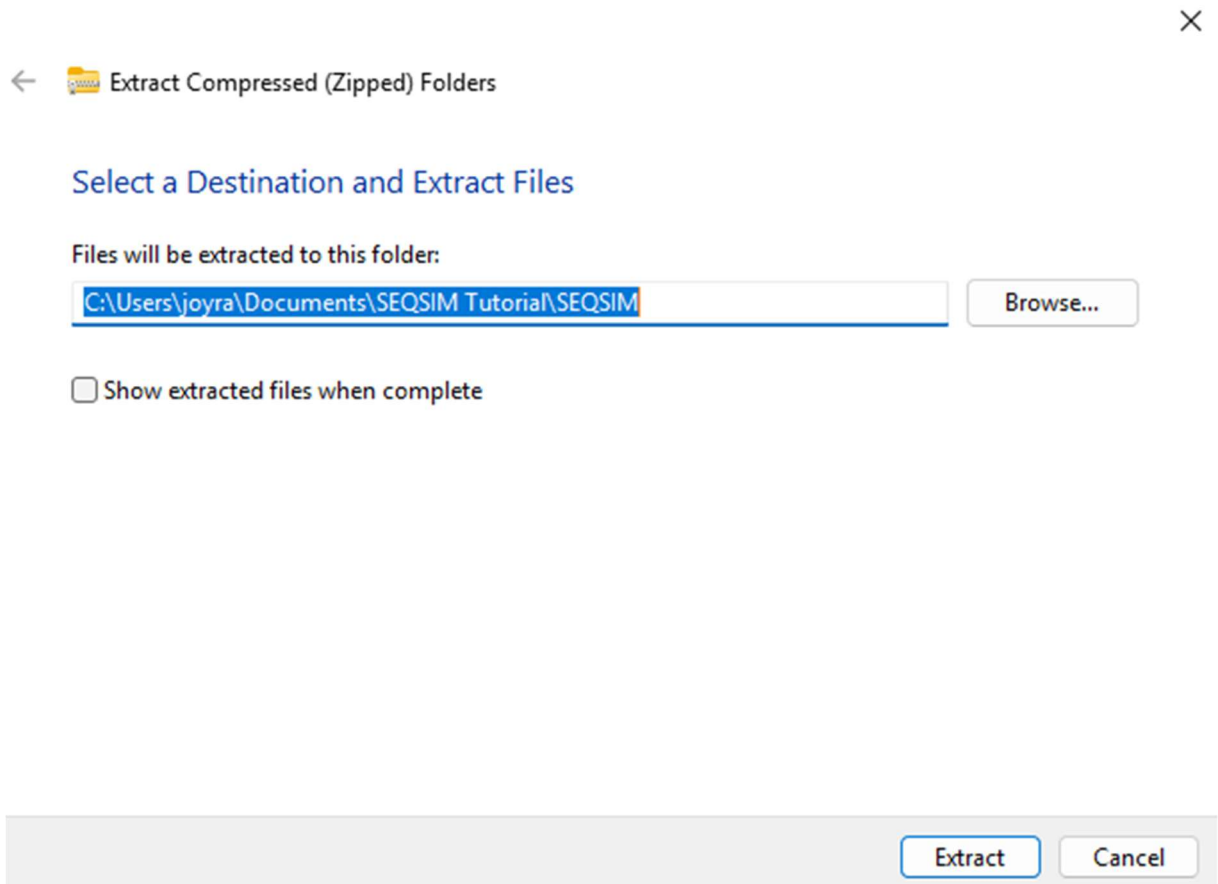
As a guideline, your file should look like the below screenshot. There may also be a tab before the start of each sequence. This makes no difference:

```
NAME1
AATCCAAGGCGCTGACACCTGGAGCTACTGCTCGGTTCTCTGAGAGGTTGCAGCACCTGCAAACTGAGTCCAGATCTGGTAAGTACCACCTCCTTAGGGTCATGCCATCTGATCTGCAG
CCAGCCAGCCAGTCAGGATGGTGACATGCAGCCCAAGGTGGCAGAGAGAATTTTCTGTCTGTTTTCAAGAACAATTTAGGCTTTGATTTTTCTCTAAATGATGTTTGTCTTCATC
CCCCAAATTTGGATTTGTGCTTGGTTTTGTCAATTCAAAATTCCTATTGAAGCAGTTTTTTTTTAACAAGAGATATTAAGGTTACAAGTGGTTGAATTTTTATTTCGTGACATTTGAA
ATAATTTGGTTTTGTGCCCCATAATATAGTTTATAGACTTGGTGGCATCTGTGATTTACATGTTAGGCCCTAGTTTTTACTAATACCTTAAAGATATTCATAGGCCATTCTCAAGAGTGG
AGTCTTTGTTCTGAACATGGGACCCATTTTTTCCCTAGATTCATCCCAAAGTGGGTCTTGTGAGTCTGTGTAAGAGATCAACATTGGAACCTTCATCTGAGAGTTAGTGTTTTTATCC
CTAACTTTCACAGGCTCTAGAACACTGTCTGCTGTTTTTACAATTTCTGTTACAATTTTTCAAAATAAAAAATAATGGCGCTGATTCGAAGGAGTCCCTTTAGTCTTCTGCAAGCATGTC
AATTGTGGGAAGTGAAGTGTAGGCTGTGTGGGGCCACAGGACATCTCGTCCCATTTGTTTTAGGGTGGTAAGTGACAAGAAATATTTTCTCAAAAAGTGGAGCTTAGCTTTTCAAGATCC
TCAGCAACGCTTCCAGTGTACTGAGATTTAGTGCAGCAATGGTTGAAAATGAATGGGCCAGTGGTTACCTTGCCCTCTCTCATTTGTTGGAAGACATTTTATGGTACCAGCAAGGGC
AGAATACAGATTTGTGTCCAGAAAGTGCAGAGTGAATGGGTGAATACCTTTCCACCTCTACAGAGCAATGACATTGGCACTAGGAGATGATGAAGTATGTGATTTGCCGTA
AGAATGATGTTTTTTTTCTCTAGATTCATCAGGATGAGCTCCAGGCCCCACCTAGACTCCTGGAGCTGGCTGAGCAGAGTCTGCTGAGAGACCGGGCTTGGCCATCCCCACCTGGAGGAG
CTGCCACAGGAGCTCTTTCCCCACTGTTTATGGAGGCTTTACAGGAGATGCTGCGAGACCTGACAACTATGGTGCAGGCCCTGGCCCTTCACCTGCCCTCTCTAGGGTCCCTGATGAA
GTCATGTAATCTAGAGATCTTTCGAGCTGTGCTGGAGGGGCTTATGTCACCTGTTGCCAGAAGGTTGCGCCCAAGGTGAGGTGACCCAGCTAACAGGTGGGGAGGGCTCAGGCATCCAGGG
TAGGGTTAGCTGGGTGAGAAGGAGTGGGAGGCCAAGGTGGCCAGAGACTTCTGATGGGCTGGGGAGGAAGCTCAGAGAGGCCCTGGCCATTGTCCAGCTCCTCTGGGAAAGGACTGCT
CACCATGCAAGGTCCTCAAGGATCAGGAACCTGCCCTCTGCCAGTGGCAATTGAAGACACTAGCAGTGGGGACAGGCAGGTTTCAAGGAGAAAGAGGGATGGAGAAAAGACAGAGAGTG
GGAGAAAGCAGCAGGAGGAGAGTGCCTGATGTCCGGGATGGGATAAAAGCTCAAACTCTTCTAAATTTGGAGCCTCTCTTCTTTTACCCACAGGCGGTGGAACCTCAAGTGTGGAC
TTGCGGAATGTGGATGAGAACTCTGGGGCATATGGTCTGGAGCTTCTGCACTCTCCAGAGGCCCTGAGTAAGAGACGAACAGCAGGGAAGTGTCAAGGCCGGGTGGGACGAGCCCTT
GATGGTGATCTAGACCTTTGCTTCAAGAAATGGGACGCTGGATGAATG
NAME2
CCTCACCCACTTCTTAGAGTGGGGCAAGCAGAGAAAAGGCTTACTGCACGTGTGTTGCAAGGAGCTGCAGATTTTTGGAATAGCCATCCACAGGATCATAGAGGCTCTGAACACGGTGGAGC
TAGACTGTATCCAGGAGGTGGAAGTGTGCTGCCCCGTGGGAGCTGTCCATTCTTATAAGGTTGCCCCCTTACCTGGGCCAGATGAGGAATCTCCGCAAACTTGTTCTCTTCAACATCCATGTC
TCTGCCCTGATTTCCCTAGACAGGAAGGAGCAGTTTGTCTCATCAGTTACCTCTCAGTTCCTCAAGCTGGACTACTTCCAGAAGCTTTACATGCACTCTGTCTCTTTCTCGAAGGCCACCT
GGACCAGCTGCTCAGGTGAGGAAGTATGGTGAGCTTTCTCTGCAGACCGCAGCAAGACTTTCTTTATTACTGTAACACACAGGGGGTATCTACTGTGAGCCAGCTTGTGAGGAGGTAAACAG
CGAAGGGGACACTAGAATGTCCATGCATTGTCTGTTGGCAGCTCTGTCTGAAATAGGTGTCACACATCCATCCCAATAAGCCAGCGGGATCTCTGGGCTAGATGCTATAGAGAGGCTGTC
CATGCTAGGAAGGTACTGCAGGTTTATAGTCTAGTGAGGGTGCATTCTGTAATTCCTCCGAGGATGTGTGTCTAAGTTAAGACGATGGGAAATGGGAGTTGAAGAGGGGCACTAAAGAAGA
GAATGTCCATCACACCCCTCCATTTTAAATATAAGGTCTGTCTCACCTGCCTAGTGAACAGGTAAATCCTGTGTCTCCCTCTGTGAGTAAATGTTTGAAGTCCCAAAACATGATGGA
TAGAGGGTGAAGGAGCAGGAGTGAAGAAATGGTGAAGTGATAGATGGTTTGTGATGATACGGGATGTGAGGGTCTCTGCAGCTGGCCACCCAGCTGAGGTGAGGATCTTGCCTGG
GTTTGTCAATTTATGCTGTGCTCCATCGGGCTCCTGTGGCCAGAGATGTGGTTTTTACCTGACACATGAGGAAAGGGAGCATTAGAGTTTATGAGCTTGAACCAAGTCAACCGAGTGTG
GTGAAGGACTGAGCTCGATTGGGTGCGCTGAATGAGCAGAGTCTCCATTCCACACCCAGGTGCTGATTATCTCAGATAAGCAGAACAGCTTGGGTTGTGAAAAGTGTCTCTCTC
ACCTTGAGGTCTTCCCCACCACTCTCTCTAACTCCTTCTTGTCTCTCCAGGTGTCTCCAGGCCCTTGGAGACAGTGTGTAATGACCGAATGCTGTGTGAGAGTCGAGCTGGAAGCA
TCTCTCTTGGTGGCCGAGCATCCGTGAGCTAAAGAGCTAGACCTGAGGGGATCAGACTGACCCATTTAGTCTGAGGCCCTCTCAGTTCTGTGGAGCAAGCTGAGGCCACCTGCA
CCCTGGACTTAGAGGACTGTGGGATCGTGGATTTCCAACTCAGCGCCATCTGCTGCTGAGCGCTGCTCCAGCTCAGCACCTTCACTGTTCTGTGGGAACCTCATCTCCATGGCCGCC
CTGGAGAACCTGCTGCGCCACACCTCGGGCTGAGCAAGCTAAGCCTGGAGCTGTATCTGCCCTCTGGAGAGTTATGATGCCAGGGTGTCTCTGCTGGGGAAGATTTTCTCAACTGG
GGCTGAGCTGATGAAGACACTGAGGAGCTTAAGGCAGCCCAAGATAATTTGTGTTTCAAGCACTGCTCCCTGCGCTGCTGAGCATCAGGGCTCTCTATGACCTGGAGCCAGTCACTGTCTGT
TGAATGCTGTGTGAGGTGGATTTATTTAAAGCTTTCTTGTGTCATTTGGCACTGAATCTAGGCCATGAGTGTATGTCAAGGGGAGCACAGACCCATCGTTTATATGCTGCTCAA
TGTGAACCGAAAGGAAGGGGATGACAGGAAGGAGGAGTGGGGAA
NAME3
AAGTTGAGTTGGAGTCAATAGGAGCTTTAGAGACCTGTGTCCAGAGAATCAGAAATGGGAATCTGAATGTCTAGAATGAGAATCAGGTAGGAGAGACATGAGACAGTTACCCCTGCAGC
GATGGTTGTAAGAAAGAGTCAAGAAATAAGGGGAAGCTGAGTGGAAGTGTCTGCTGCTCCATGATTTGCTTACCTGGCTTAACATTTTAACTAAGGAATCTCAAGTTACTCATGGG
```

3. Downloading and Extracting SEQSIM

As of February 2025, SEQSIM can be downloaded from <https://sites.ualberta.ca/~joyramie/SEQSIM.html>

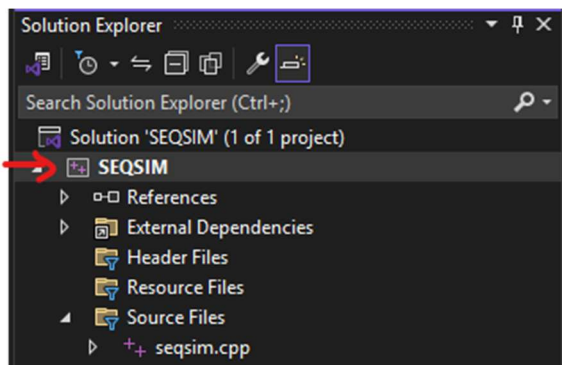
1. Once downloaded, extract the SEQSIM folder into the directory of your choice by right-clicking the ZIP file and selecting “Extract All” and selecting your directory of choice. This will be where you are working.



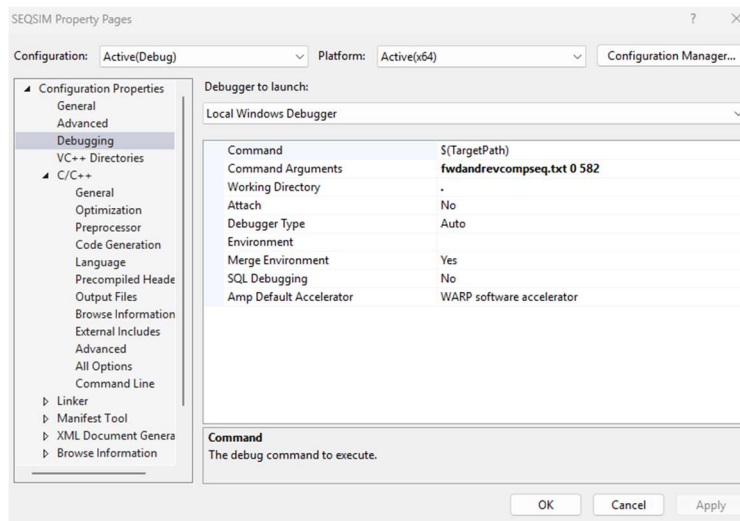
2. The extracted document contains 5 files:
 - a. Makefile
 - b. Promoters (Our SEQSIM Input)
 - c. README (Version 1, simpler)
 - d. SEQSIM.cpp
 - e. TopMatches Worksheet (Example of Post-Processing)

4. Setting up SEQSIM in Visual Studio

1. Open seqsim.cpp in Visual Studio. You can do this by right clicking the file and “Open With” or opening from within Visual Studio itself. Ensure you are working out of the same directory the input files are located.
2. Once SEQSIM is open in Visual Studio, right click on the entire program in the “Solution Explorer”. Navigate to “Properties.”



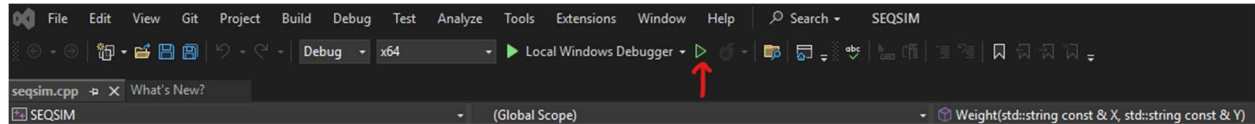
3. In the SEQSIM property pages. Navigate and change the below:
 - a. C/C++>Language>Open MP Support>”Yes (/openmp)
4. In the same properties window, navigate to Configuration Properties>Debugging>Command Arguments.
 - a. Here, you will type in 3 things separated by spaces:
 - i. The name of your input file within the directory. For example “fwdandrevcompseq.txt”
 - ii. 0 (the starting sequence index of your analysis)
 - iii. X (the ending sequence index of your analysis. For example, if I am analysing 583 sequences, 0 582 would encompass that range).



Press OK.

5. Running SEQSIM

Once your properties have been set up, click the green play button or CTRL+F5 to start the program.



Example screenshot of SEQSIM running:

```
C:\Users\joyra\source\repos\ x + -
[WARN] Skipping NAME116 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME91_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME92_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME93_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME94_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME95_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME96_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME97_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME98_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME99_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME100_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME101_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME102_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME103_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME104_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME105_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME106_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME107_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME108_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME109_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME110_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME111_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME112_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME113_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME114_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME115_1 due to unrecognized letters outside of [ACGT]
[WARN] Skipping NAME116_1 due to unrecognized letters outside of [ACGT]
Found 584 genes of length 2000
Writing results to 00000-00582.csv
```

Note, the sequences that are omitted from the analysis contain unrecognized letters outside of ACGT and are automatically removed.

Depending on your computer specifications, this analysis may take a significant amount of time. The output is a CSV file that can be opened in Excel at the end of the analysis. SEQSIM will exit on its own or prompt you to press enter to exit.

Example Output Screenshot:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	
1	Name	NAME1	NAME2	NAME3	NAME4	NAME5	NAME6	NAME7	NAME8	NAME9	NAME10	NAME11	NAME12	NAME13	NAME14	NAME15	NAME16	NAME17	NAME18	NAME19	NAME20	NAME21	NAME22	NAME23	NAME24	NAME25	NAME26	NAME27	NAME28	
2	NAME1		100	0.41443	0.40778	0.40727	0.40251	0.40990	0.40887	0.40787	0.50613	0.53044	0.42162	0.42245	0.41144	0.40603	0.39847	0.41649	0.41243	0.41264	0.41811	0.42002	0.40316	0.40795	0.41774	0.4095	0.40935	0.40878	0.41251	0.40893
3	NAME2	0.41443		100	0.40636	0.39808	0.3971	0.40507	0.40625	0.41084	0.40472	0.41402	0.44529	0.4341	0.41409	0.39563	0.39327	0.39427	0.41034	0.40709	0.42308	0.39393	0.39006	0.39729	0.40625	0.39614	0.39882	0.4008	0.41214	0.41764
4	NAME3	0.40778	0.40636		100	0.41071	0.40441	0.41064	0.41512	0.40712	0.4101	0.41101	0.40993	0.41221	0.39899	0.40994	0.40455	0.4029	0.40431	0.41662	0.412	0.41135	0.39905	0.40806	0.4002	0.40769	0.40477	0.39988	0.40944	0.41495
5	NAME4	0.40727	0.39808	0.41071		100	0.41771	0.41151	0.40337	0.39298	0.41223	0.40755	0.40254	0.40506	0.39899	0.40677	0.41822	0.41734	0.4038	0.39826	0.4012	0.41451	0.41182	0.41572	0.40481	0.41253	0.40613	0.40098	0.40026	0.39935
6	NAME5	0.40251	0.3971	0.40441	0.41771		100	0.41652	0.40784	0.4081	0.40665	0.40374	0.39841	0.40729	0.39343	0.40549	0.42519	0.41711	0.40449	0.4023	0.40491	0.41431	0.42164	0.4085	0.41324	0.41076	0.39862	0.40865	0.40307	0.41245
7	NAME6	0.40990	0.40507	0.41064	0.41151	0.41652		100	0.41954	0.40871	0.41097	0.41035	0.40391	0.40671	0.40743	0.40895	0.41099	0.41562	0.40516	0.39885	0.40116	0.40858	0.40602	0.40073	0.41599	0.40432	0.4023	0.40947	0.40857	0.40806
8	NAME7	0.40887	0.40525	0.41512	0.40337	0.40784	0.41064		100	0.45048	0.41887	0.45458	0.40292	0.43115	0.40771	0.39343	0.40904	0.41047	0.41212	0.42733	0.41392	0.42448	0.40689	0.4106	0.41268	0.41056	0.45406	0.41566	0.40996	0.43727
9	NAME8	0.40767	0.41084	0.40712	0.39298	0.4081	0.40871	0.45048		100	0.4088	0.42845	0.4031	0.41793	0.4095	0.43029	0.93177	0.4075	0.41151	0.42296	0.47549	0.40705	0.40098	0.4048	0.41537	0.40552	0.44254	0.4024	0.41005	0.45187
10	NAME9	0.50613	0.40472	0.4101	0.41223	0.40665	0.41097	0.41887	0.4088		100	0.41776	0.40849	0.41703	0.41097	0.40971	0.41102	0.41633	0.41276	0.41527	0.41149	0.4652	0.41419	0.41924	0.41972	0.43898	0.42042	0.44042	0.43645	0.41504
11	NAME10	0.53044	0.41402	0.41101	0.40755	0.40374	0.41035	0.45458	0.42845	0.41776		100	0.40872	0.43355	0.41373	0.43092	0.40926	0.41667	0.41692	0.44103	0.41945	0.41977	0.41219	0.40794	0.41891	0.42614	0.45425	0.41272	0.41916	0.44799
12	NAME11	0.42162	0.44529	0.40993	0.40254	0.39841	0.40391	0.40292	0.4031	0.40549	0.40872		100	0.41043	0.40907	0.40738	0.39875	0.39762	0.4049	0.41047	0.40715	0.40207	0.39646	0.39784	0.40412	0.40361	0.40324	0.41433	0.40812	
13	NAME12	0.42245	0.4341	0.41221	0.40506	0.40729	0.40671	0.43115	0.41703	0.41703	0.43355	0.41043		100	0.41801	0.41856	0.39982	0.40921	0.41444	0.43161	0.4231	0.40915	0.39941	0.39769	0.40996	0.42105	0.43808	0.41486	0.41963	0.42248
14	NAME13	0.41144	0.41409	0.39809	0.39899	0.39343	0.40743	0.40771	0.4095	0.41097	0.41373	0.40907	0.41801		100	0.40127	0.39817	0.39284	0.4128	0.41624	0.40934	0.40025	0.39368	0.39218	0.40908	0.41136	0.40608	0.4145	0.41365	0.41415
15	NAME14	0.40653	0.39563	0.40994	0.40677	0.40549	0.40895	0.43843	0.43029	0.40971	0.43092	0.40738	0.41826	0.40127		100	0.39769	0.40746	0.40603	0.42251	0.3995	0.42559	0.39972	0.40121	0.40177	0.42294	0.48962	0.40437	0.40858	0.4171
16	NAME15	0.39847	0.39327	0.40455	0.41822	0.42519	0.41099	0.40904	0.93177	0.41102	0.40926	0.39875	0.39982	0.39882	0.39769		100	0.44501	0.40611	0.4045	0.38767	0.59381	0.85304	0.45515	0.42113	0.40471	0.39758	0.3953	0.38961	0.44791
17	NAME16	0.41649	0.39427	0.4029	0.41734	0.41711	0.41362	0.41947	0.4075	0.41633	0.41667	0.39762	0.40921	0.39284	0.40476	0.44501		100	0.40866	0.40199	0.39795	0.42071	0.67422	0.59528	0.42453	0.40253	0.40124	0.39933	0.39723	0.40293
18	NAME17	0.41243	0.41034	0.40431	0.4039	0.40449	0.40516	0.41212	0.41151	0.41276	0.41692	0.4049	0.41444	0.4128	0.40603	0.40811	0.40966		100	0.41573	0.41587	0.41445	0.40529	0.40148	0.4084	0.40508	0.41171	0.4094	0.40633	0.41579
19	NAME18	0.41264	0.40709	0.41602	0.39826	0.4023	0.39885	0.42733	0.42296	0.41527	0.44103	0.41047	0.43181	0.41624	0.42251	0.4045	0.40199	0.41573		100	0.41525	0.4159	0.39216	0.39666	0.41287	0.42902	0.44485	0.42019	0.42259	0.42854
20	NAME19	0.41811	0.42208	0.4162	0.4012	0.40491	0.40116	0.41392	0.47549	0.41149	0.41945	0.40716	0.4231	0.40934	0.3995	0.38767	0.39795	0.41587	0.41525		100	0.40134	0.39484	0.39337	0.41606	0.4028	0.41517	0.41078	0.41331	0.42223
21	NAME20	0.4202	0.39393	0.41155	0.41451	0.41431	0.40858	0.42448	0.40705	0.4652	0.41977	0.40207	0.40915	0.40025	0.42559	0.59381	0.42071	0.41445	0.4159	0.40134		100	0.41821	0.52782	0.40827	0.42176	0.42685	0.39596	0.40285	0.41886
22	NAME21	0.40516	0.39806	0.39905	0.41182	0.42164	0.40602	0.40869	0.40098	0.41419	0.41219	0.39646	0.39941	0.39368	0.39972	0.85304	0.67422	0.40529	0.39216	0.39484	0.41821		100	0.43756	0.42558	0.39945	0.39624	0.401	0.39724	0.39967
23	NAME22	0.40795	0.39729	0.40806	0.41572	0.4085	0.40073	0.4106	0.4048	0.41524	0.40794	0.38784	0.39769	0.38218	0.40121	0.45515	0.39528	0.40148	0.39666	0.38537	0.52782	0.43796		100	0.42319	0.40534	0.40044	0.39242	0.3965	0.40296
24	NAME23	0.41174	0.40625	0.4002	0.40481	0.41324	0.41509	0.41268	0.41537	0.41692	0.41691	0.40412	0.40996	0.40938	0.40177	0.42113	0.42453	0.4084	0.41287	0.41696	0.40957	0.42558	0.42319		100	0.40441	0.40795	0.41212	0.40489	0.41606
25	NAME24	0.4095	0.39614	0.40769	0.41253	0.41076	0.40432	0.41056	0.40552	0.43898	0.42614	0.40361	0.42105	0.41136	0.42294	0.40471	0.40253	0.40508	0.42902	0.4028	0.42176	0.39945	0.40534	0.40441		100	0.42798	0.43188	0.43925	0.40684
26	NAME25	0.40935	0.39882	0.40477	0.40613	0.39862	0.4023	0.45406	0.44254	0.42042	0.45425	0.40631	0.43808	0.40608	0.44962	0.39758	0.40124	0.41171	0.44485	0.41517	0.42685	0.39624	0.40444	0.40795	0.42798		100	0.39958	0.4213	0.44269
27	NAME26	0.40878	0.4008	0.39988	0.40098	0.40865	0.40947	0.41656	0.4024	0.44042	0.41272	0.40224	0.41488	0.4145	0.40437	0.3953	0.39933	0.4094	0.42019	0.41078	0.39596	0.401	0.39242	0.41212	0.43188	0.39958		100	0.47313	0.40649
28	NAME27	0.41251	0.41214	0.40944	0.40026	0.40307	0.40857	0.40906	0.41005	0.43645	0.41916	0.41453	0.41983	0.41365	0.40856	0.39961	0.39723	0.40633	0.42259	0.41331	0.40285	0.39724	0.39605	0.40489	0.43925	0.4213	0.47131	100		0.41978
29	NAME28	0.40893	0.41764	0.41485	0.39933	0.41245	0.40906	0.43727	0.45187	0.41504	0.44799	0.40912	0.42248	0.41415	0.4171	0.44791	0.40293	0.41379	0.42854	0.42523	0.41886	0.39967	0.40296	0.41606	0.44269	0.44049	0.41978		100	
30	NAME29	0.41183	0.39766	0.4037	0.40691	0.40329	0.40559	0.41425	0.40729	0.44566	0.42212	0.40654	0.41999	0.40961	0.41258	0.39958	0.40632	0.40933	0.43341	0.41715	0.42057	0.4032	0.39925	0.40773	0.44659	0.42069	0.44829	0.45061	0.42791	
31	NAME30	0.41342	0.40005	0.4077	0.40763	0.40791	0.41676	0.40731	0.40542	0.44293	0.41552	0.40809	0.41169	0.40911	0.41064	0.40655	0.4078	0.41786	0.41182	0.40537	0.41045	0.408	0.41087	0.41173	0.43541	0.4097	0.47699	0.43739	0.40901	
32	NAME31	0.4085	0.39438	0.40731	0.4121	0.41016	0.41328	0.45884	0.44607	0.42996	0.45519	0.40861	0.43243	0.40591	0.45633	0.40411	0.41003	0.40884	0.43912	0.40704	0.43116	0.40548	0.40492	0.40983	0.44917	0.51406	0.45184	0.43249	0.43423	
33	NAME32	0.40741	0.40034	0.40398	0.40408	0.40659	0.40747	0.40693	0.4012	0.44675	0.40815	0.41163	0.4168	0.41418	0.41306	0.39861	0.39476	0.40381	0.42793	0.3981	0.40372	0.39366	0.39521	0.39448	0.46359	0.42822	0.49664	0.50205	0.40801	
34	NAME33	0.40641	0.40613	0.40487	0.39788	0.40379	0.40906	0.43433	0.41924	0.44095	0.4257	0.41552	0.41599	0.40602	0.42092	0.38444	0.3879	0.40736	0.43565	0.41291	0.39439	0.38785	0.39726	0.48664	0.43841	0.43495	0.50918	0.45526	0.43047	
35	NAME34	0.41117	0.40955	0.40182	0.40441	0.40393	0.41548	0.4114	0.41011	0.41054	0.40963	0.4038	0.40812	0.40715	0.39963	0														