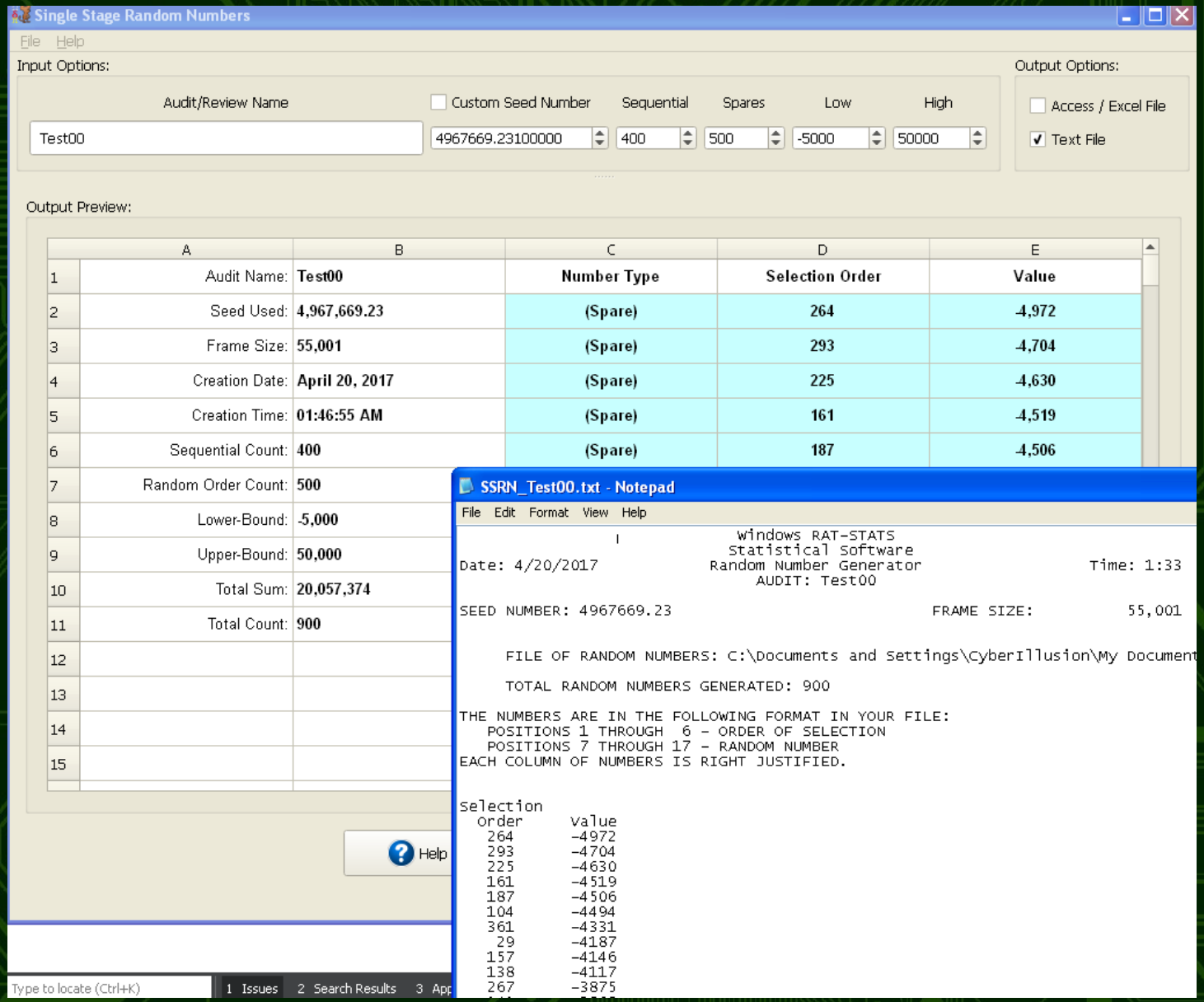
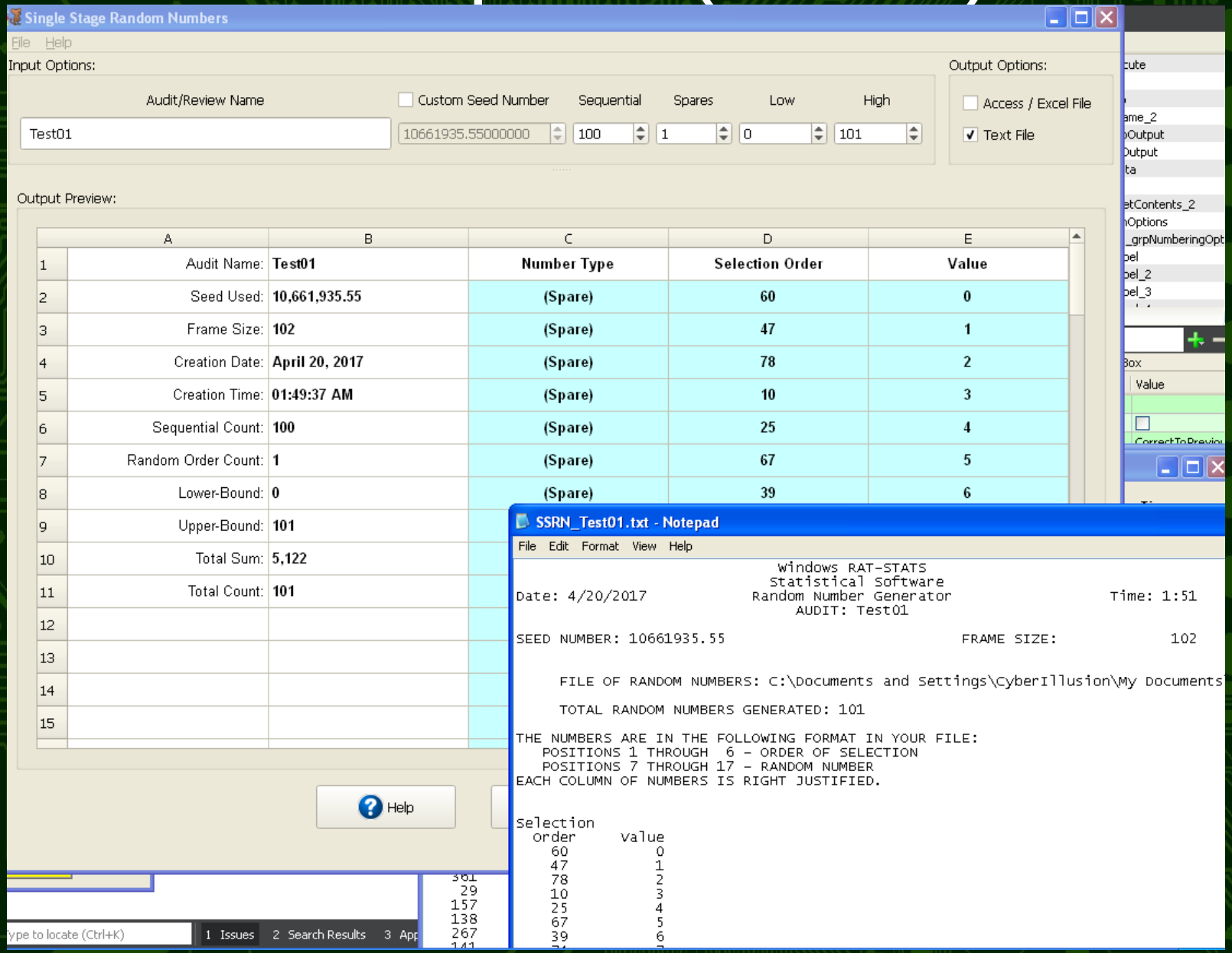
Example Comparison Guide Between RAT-STATS 2017 and RAT-STATS 2010

April 20, 2017

Single Stage Random Numbers Example 1 (test00)

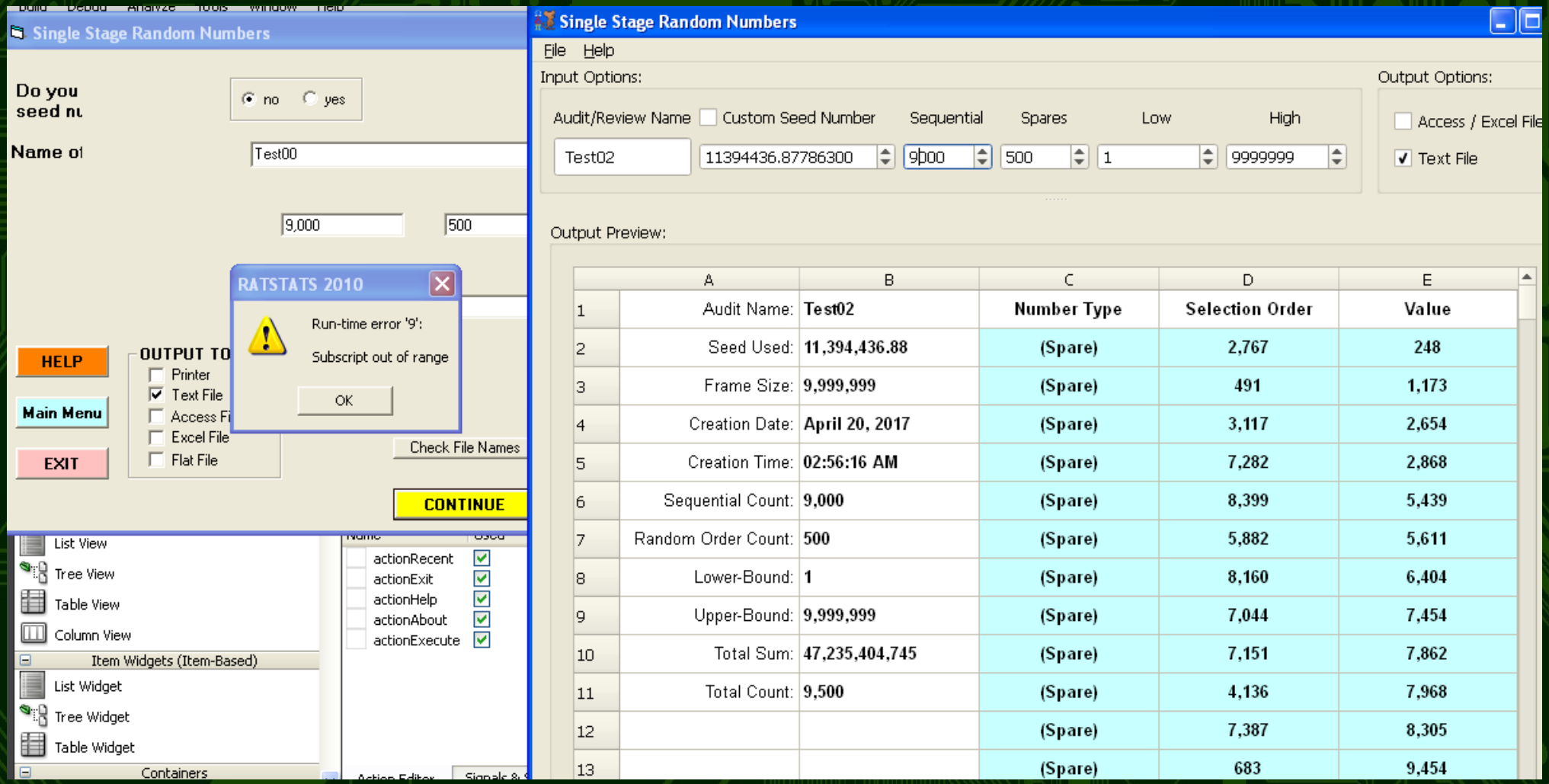


Single Stage Random Numbers Example 2 (test01)



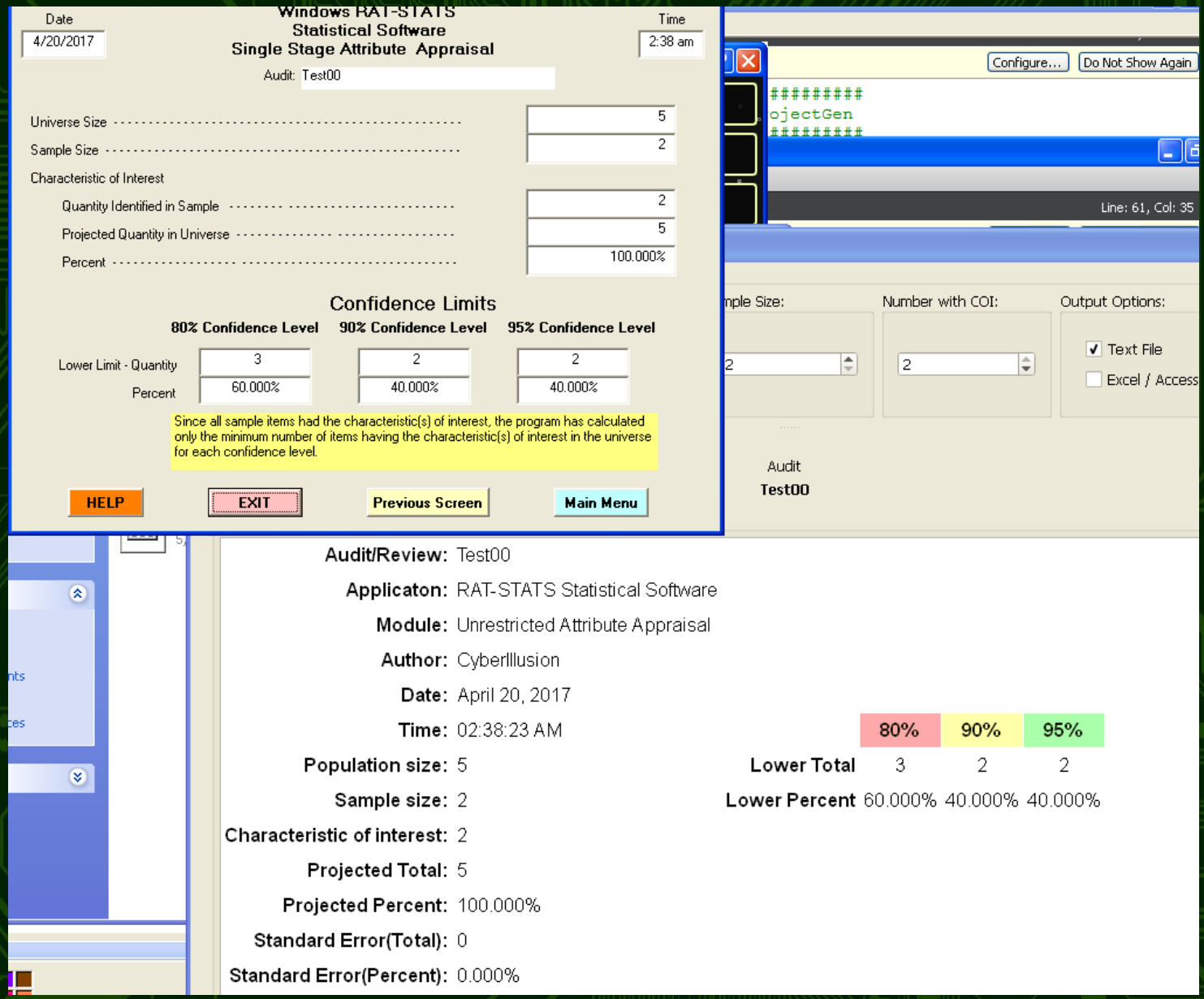
Single Stage Random Numbers Example 3 (test02)

RAT-STATS 2010 appears to have crashed in this case. The User Guide says that the limit is 10,000 so I am unsure why/how the old version of RAT-STATS failed. The classic runtime error indicates that an array somewhere was being accessed out of bounds.

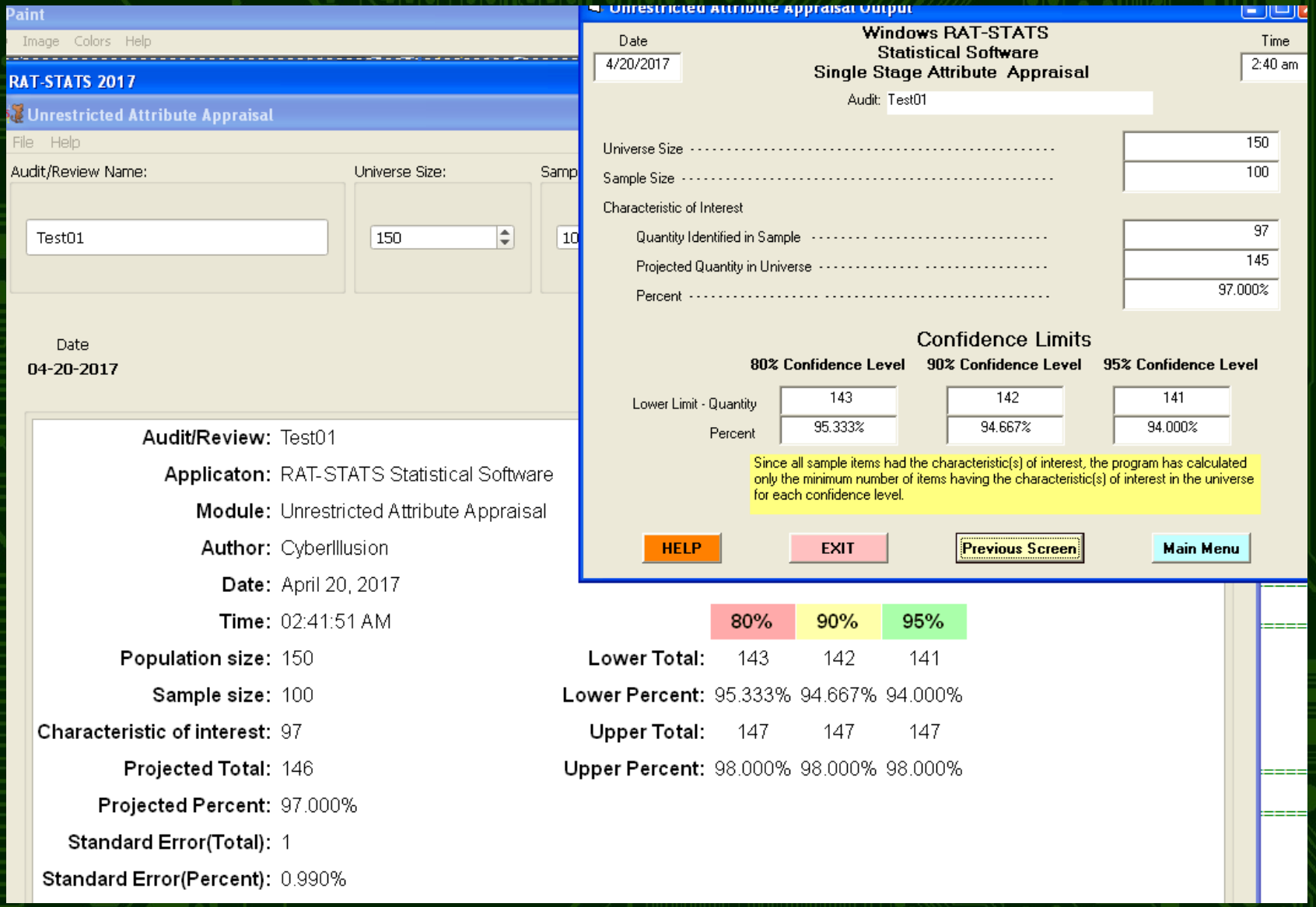


	A	B	C	D	E
1	Audit Name:	Test02	Number Type	Selection Order	Value
2	Seed Used:	11,394,436.88	(Spare)	2,767	248
3	Frame Size:	9,999,999	(Spare)	491	1,173
4	Creation Date:	April 20, 2017	(Spare)	3,117	2,654
5	Creation Time:	02:56:16 AM	(Spare)	7,282	2,868
6	Sequential Count:	9,000	(Spare)	8,399	5,439
7	Random Order Count:	500	(Spare)	5,882	5,611
8	Lower-Bound:	1	(Spare)	8,160	6,404
9	Upper-Bound:	9,999,999	(Spare)	7,044	7,454
10	Total Sum:	47,235,404,745	(Spare)	7,151	7,862
11	Total Count:	9,500	(Spare)	4,136	7,968
12			(Spare)	7,387	8,305
13			(Spare)	683	9,454

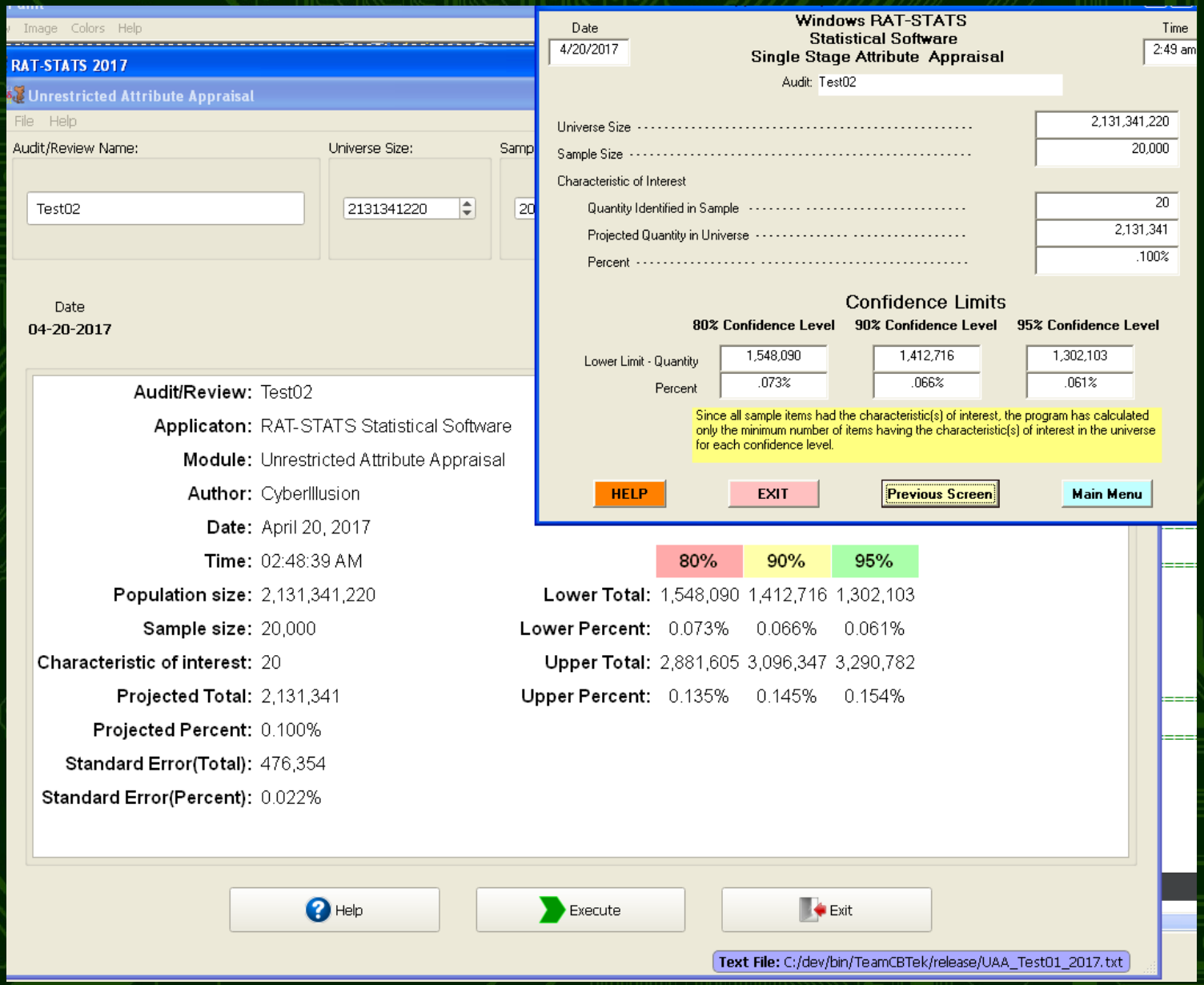
Unrestricted Attribute Appraisal Example 1 (test00)



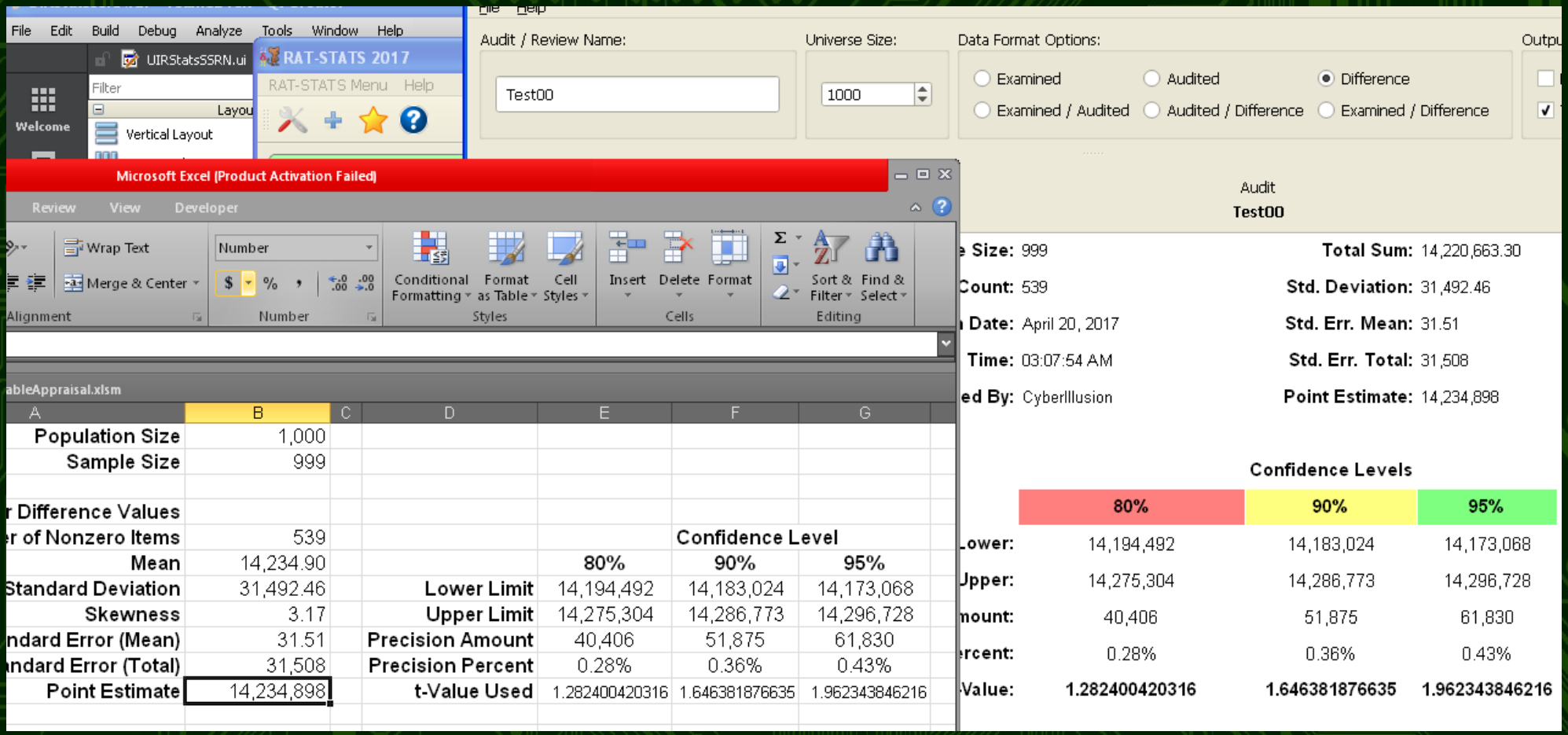
Unrestricted Attribute Appraisal Example 2 (test01)



Unrestricted Attribute Appraisal Example 3 (test02)

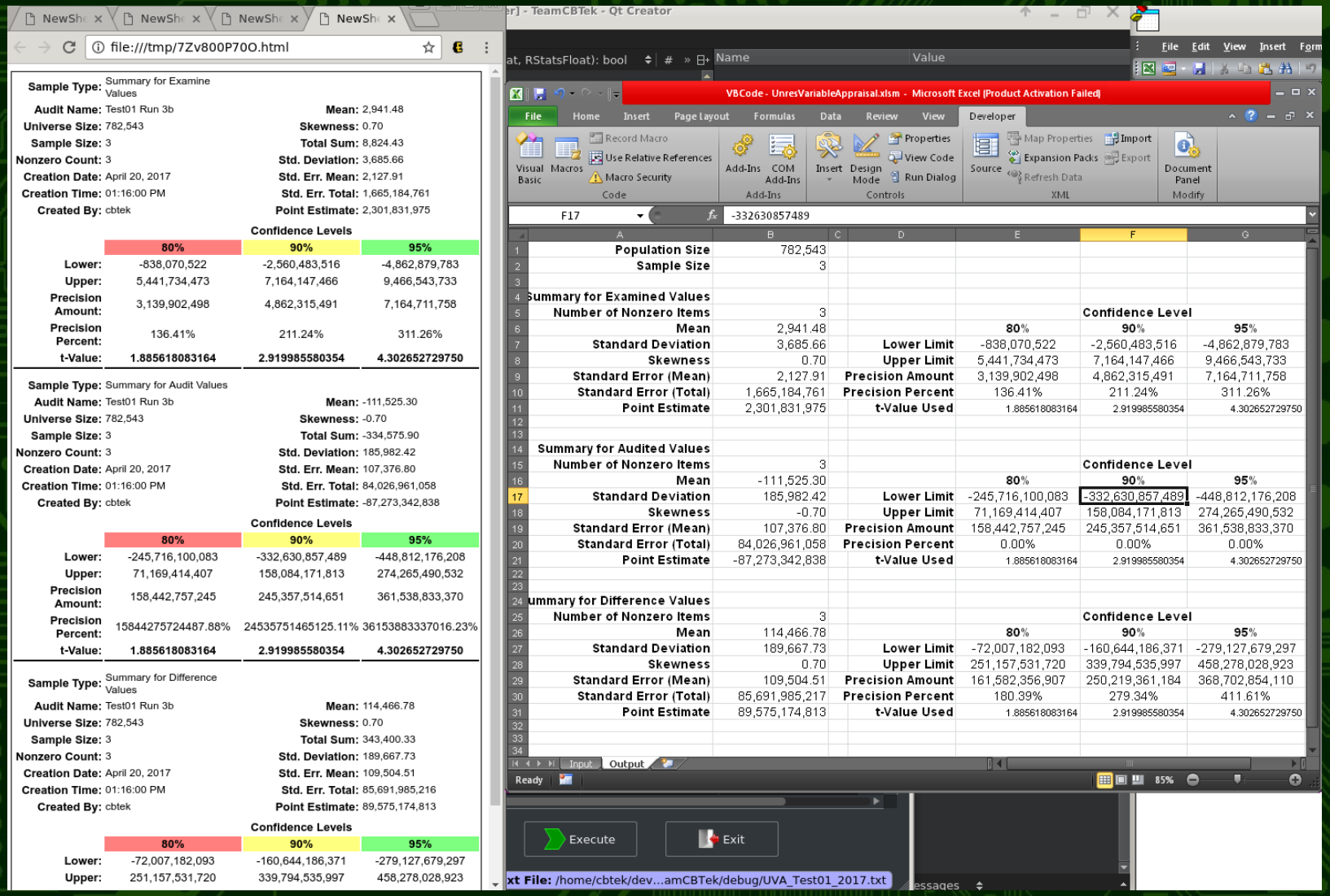


Unrestricted Variable Appraisal Example 1 (test00)



Unrestricted Variable Appraisal Example 2 (test01)

This comparison utilized the “HTML” output option in RAT-STATS 2017 to better compare more amounts of data



file:///tmp/7Zv800P70O.html

Sample Type:	Summary for Examine Values
Audit Name:	Test01 Run 3b
Universe Size:	782,543
Sample Size:	3
Nonzero Count:	3
Creation Date:	April 20, 2017
Creation Time:	01:16:00 PM
Created By:	cbtek
Mean:	2,941.48
Skewness:	0.70
Total Sum:	8,824.43
Std. Deviation:	3,685.66
Std. Err. Mean:	2,127.91
Std. Err. Total:	1,665,184,761
Point Estimate:	2,301,831,975

Confidence Levels

	80%	90%	95%
Lower:	-838,070,522	-2,560,483,516	-4,862,879,783
Upper:	5,441,734,473	7,164,147,466	9,466,543,733
Precision Amount:	3,139,902,498	4,862,315,491	7,164,711,758
Precision Percent:	136.41%	211.24%	311.26%
t-Value:	1.885618083164	2.919985580354	4.302652729750

Sample Type:	Summary for Audit Values
Audit Name:	Test01 Run 3b
Universe Size:	782,543
Sample Size:	3
Nonzero Count:	3
Creation Date:	April 20, 2017
Creation Time:	01:16:00 PM
Created By:	cbtek
Mean:	-111,525.30
Skewness:	-0.70
Total Sum:	-334,575.90
Std. Deviation:	185,982.42
Std. Err. Mean:	107,376.80
Std. Err. Total:	84,026,961,058
Point Estimate:	-87,273,342,838

Confidence Levels

	80%	90%	95%
Lower:	-245,716,100,083	-332,630,857,489	-448,812,176,208
Upper:	71,169,414,407	158,084,171,813	274,265,490,532
Precision Amount:	158,442,757,245	245,357,514,651	361,538,833,370
Precision Percent:	15844275724487.88%	24535751465125.11%	36153883337016.23%
t-Value:	1.885618083164	2.919985580354	4.302652729750

Sample Type:	Summary for Difference Values
Audit Name:	Test01 Run 3b
Universe Size:	782,543
Sample Size:	3
Nonzero Count:	3
Creation Date:	April 20, 2017
Creation Time:	01:16:00 PM
Created By:	cbtek
Mean:	114,466.78
Skewness:	0.70
Total Sum:	343,400.33
Std. Deviation:	189,667.73
Std. Err. Mean:	109,504.51
Std. Err. Total:	85,691,985,216
Point Estimate:	89,575,174,813

Confidence Levels

	80%	90%	95%
Lower:	-72,007,182,093	-160,644,186,371	-279,127,679,297
Upper:	251,157,531,720	339,794,535,997	458,278,028,923

VBCode - UnresVariableAppraisal.xlsm - Microsoft Excel (Product Activation Failed)

F17: -332630857489

	A	B	C	D	E	F	G
1	Population Size	782,543					
2	Sample Size	3					
3							
4	Summary for Examined Values						
5	Number of Nonzero Items	3				Confidence Level	
6	Mean	2,941.48			80%	90%	95%
7	Standard Deviation	3,685.66		Lower Limit	-838,070,522	-2,560,483,516	-4,862,879,783
8	Skewness	0.70		Upper Limit	5,441,734,473	7,164,147,466	9,466,543,733
9	Standard Error (Mean)	2,127.91		Precision Amount	3,139,902,498	4,862,315,491	7,164,711,758
10	Standard Error (Total)	1,665,184,761		Precision Percent	136.41%	211.24%	311.26%
11	Point Estimate	2,301,831,975		t-Value Used	1.885618083164	2.919985580354	4.302652729750
12							
13							
14	Summary for Audited Values						
15	Number of Nonzero Items	3				Confidence Level	
16	Mean	-111,525.30			80%	90%	95%
17	Standard Deviation	185,982.42		Lower Limit	-245,716,100,083	-332,630,857,489	-448,812,176,208
18	Skewness	-0.70		Upper Limit	71,169,414,407	158,084,171,813	274,265,490,532
19	Standard Error (Mean)	107,376.80		Precision Amount	158,442,757,245	245,357,514,651	361,538,833,370
20	Standard Error (Total)	84,026,961,058		Precision Percent	0.00%	0.00%	0.00%
21	Point Estimate	-87,273,342,838		t-Value Used	1.885618083164	2.919985580354	4.302652729750
22							
23							
24	Summary for Difference Values						
25	Number of Nonzero Items	3				Confidence Level	
26	Mean	114,466.78			80%	90%	95%
27	Standard Deviation	189,667.73		Lower Limit	-72,007,182,093	-160,644,186,371	-279,127,679,297
28	Skewness	0.70		Upper Limit	251,157,531,720	339,794,535,997	458,278,028,923
29	Standard Error (Mean)	109,504.51		Precision Amount	161,582,356,907	250,219,361,184	368,702,854,110
30	Standard Error (Total)	85,691,985,217		Precision Percent	180.39%	279.34%	411.61%
31	Point Estimate	89,575,174,813		t-Value Used	1.885618083164	2.919985580354	4.302652729750
32							
33							
34							

Input | Output

Ready

Execute | Exit

xt File: /home/cbtek/dev...amCBTek/debug/UVA_Test01_2017.txt

Stratified Variable Appraisal

- The SVA function would be better tested in person so it is not provided here.