

SPEED MOMENTUM SAMPLING

"Effortless Sampling, Accurate Results"

USER GUIDE



Experience unparalleled efficiency in auditing processes with Speed Momentum Sampling, an innovative Excel Add-In tool designed to automate and enhance the sampling procedures outlined in ISA 530.

Compliant with International Standard on Auditing (ISA) 530, our software simplifies and accelerates the sampling process, ensuring accuracy and reliability in your audits.



Info



Sampling



Random Random-Systematic Monetary Sampling Unit Sampling

Speed Momentum Sampling



www.speedmomentum.com

Web Page

Language (English) ~

Language

Activation

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Automation: Streamline your auditing tasks by automating the sampling process, saving time and reducing manual errors.

Compatibility: Fully integrates with Excel, making it accessible and easy to use for auditors familiar with spreadsheet tools.

Key Features of Speed Momentum Sampling Accuracy: Enhance the reliability of audit findings with precise sampling techniques endorsed by ISA 530.

Flexibility: Customize sampling parameters to suit the specific requirements of different audit engagements.



Audit Efficiency: Improve overall efficiency by leveraging advanced sampling methodologies directly within Excel.

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What is ISA 530?

ISA 530, the International Standard on Auditing dealing with Audit Sampling, provides guidance on the application of statistical and non-statistical sampling approaches. It emphasizes the importance of selecting appropriate samples and evaluating sample results to form audit conclusions effectively.

Three Statistical Sampling Methods Supported:

Random Sampling:

Random sampling is a statistical method where each item in a population has an equal chance of being selected. This is achieved by using randomization techniques such as a random number generator. It ensures that the sample is unbiased and representative of the entire population.

Random Systematic Sampling:

Random Systematic Sampling involves selecting a sample from a population at regular intervals, known as the "skip interval," after determining a random starting point. The skip interval is calculated by dividing the population size by the desired sample size. Once the starting point is randomly chosen, every nth item is selected, where n is the skip interval.

Monetary Unit Sampling:

Monetary Unit Sampling (MUS) is a sampling technique used primarily in audits, where the sampling unit is a monetary unit (e.g., a dollar or euro) rather than a physical item. Larger-value items are more likely to be selected since each monetary unit is treated as a separate sampling unit. MUS is designed to focus on higher-value transactions, making it more effective at identifying potential misstatements in financial data. It is systematic but with a focus on monetary value rather than individual.



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Installation

After downloading the **Speed Momentum Sampling** installation package, run Install **Speed Momentum Sampling.exe** to start the installation wizard. Follow the wizard's steps to complete the installation.

Once installed, open Microsoft Excel, and you should see the **SM Sampling** tab added to the existing tabs. The Speed Momentum Sampling add-in is now ready for use!





Licence Info

To start using **Speed Momentum Sampling**, you'll need to activate a valid license. Begin by navigating to the **SM Sampling** tab in Excel and clicking the License Info button. This will open the license activation prompt.

License Activation	×
	License Activation
SPEED MOMENTUM	License Key:
	Activate Free Trial Activate License

To activate a valid license, first purchase on our website: <u>www.speed-momentum.com</u>. Once your purchase is complete, you'll receive a license key.



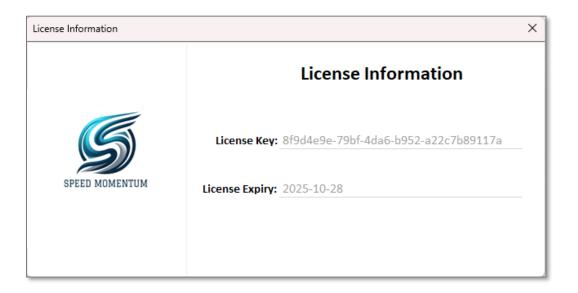
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Enter this key in the input field within the license activation panel (see above) accessed via the **License Info** button in the **SM Sampling** tab.

Once you enter your license key, click the Activate License button to activate it, and Speed Momentum Sampling will be ready to use.

If you'd like to try the product for free, simply press Activate Free Trial for 14 days of free access. Note that the free trial can only be activated once.

You can check your license status at any time by pressing the License Info button.





Random Sampling



The Random Sampling Tool automates the process of creating a randomized sample (using random number generator) from a selected data range within an Excel workbook. Before starting using this tool make your that:

Your selected range does not have any hidden columns or rows

Let's get started!

1. Select a rectangular range always including the headers:

Input	?	×
Select a range for sampling (headers included):		
ОК	Can	cel

Example of selecting a rectangular range:

1	A	В	С	D	E	F	G	н	1.0	J	K	L		Μ		Ν
1	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number					_			
2	Speed Momentum	4000010	Expense	3.743	USD	2024-02-28	2024-02-28	591668								
3	Speed Momentum	4000012	Expense	8.543	USD	2024-02-06	2024-02-06	168521	Inpu	t				?	×	
4	Speed Momentum	4000010	Expense	5.850	USD	2024-04-08	2024-04-08	277614	Selec	t a range for	sampling (headers in	cluded):			
5	Speed Momentum	4000012	Expense	993	USD	2024-01-26	2024-01-26	110065		1:\$H\$27						
6	Speed Momentum	4000010	Expense	3.357	USD	2024-02-20	2024-02-20	506529								
7	Speed Momentum	4000012	Expense	2.083	USD	2024-01-09	2024-01-09	988762				OK		Cancel		
8	Speed Momentum	4000012	Expense	3.035	USD	2024-02-13	2024-02-13	653797	-						_	
9	Speed Momentum	4000010	Expense	6.391	USD	2024-02-02	2024-02-02	653746								
10	Speed Momentum	4000012	Expense	1.694	USD	2024-03-09	2024-03-09	442252								
11	Speed Momentum	4000010	Expense	5.633	USD	2024-04-08	2024-04-08	743105								
12	Speed Momentum	4000012	Expense	2.761	USD	2024-04-12	2024-04-12	745425								
13	Speed Momentum	4000012	Expense	6.964	USD	2024-05-04	2024-05-04	657069								
14	Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239								
15	Speed Momentum	4000010	Expense	7.993	USD	2024-05-12	2024-05-12	537409								
16	Speed Momentum	4000012	Expense	1.611	USD	2024-05-05	2024-05-05	370196								
17	Speed Momentum	4000010	Expense	5.102	USD	2024-05-14	2024-05-14	429096								
18	Speed Momentum	4000012	Expense	5.735	USD	2024-02-26	2024-02-26	225401								
19	Speed Momentum	4000012	Expense	3.893	USD	2024-01-05	2024-01-05	375575								
20	Speed Momentum	4000012	Expense	417	USD	2024-02-15	2024-02-15	760250								
21	Speed Momentum	4000010	Expense	6.392	USD	2024-01-08	2024-01-08	471297								
22	Speed Momentum	4000012	Expense	2.031	USD	2024-04-27	2024-04-27	496452								
23	Speed Momentum	4000012	Expense	8.373	USD	2024-02-24	2024-02-24	856299								
24	Speed Momentum	4000012	Expense	4.570	USD	2024-04-29	2024-04-29	776847								
25	Speed Momentum	4000010	Expense	7.890	USD	2024-04-11	2024-04-11	713853								
26	Speed Momentum	4000012	Expense	396	USD	2024-05-05	2024-05-05	735147								
27	Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819								
28																



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If the rectangular range is not selected correctly, the below message will pop out. After selecting "OK" the range can be selected again.



2. Enter the number of samples to be chosen with the random generator. The number of samples can be between 1 and the total number of items within the population.

Input	?	×
Enter the number of random samples:		
ОК	Cano	cel

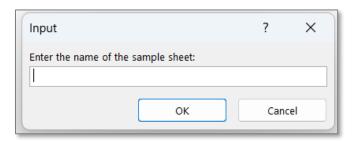
Example: if the total number of items within the population is 26, you must enter a number between 1 and 26. A number >26 will generate an out-of-range error.

If the number of samples exceeds the total number of items within the population, the below error message will appear. After selecting "OK" the number of samples can be entered again.

ltem Numbe	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number	
:	Speed Momentum	4000010	Expense	3.743	USD	2024-02-28	2024-02-28	591668	
2	2 Speed Momentum	4000012	Expense	8.543	USD	2024-02-06	2024-02-06	168521	Microsoft Excel X
	3 Speed Momentum	4000010	Expense	5.850	USD	2024-04-08	2024-04-08	277614	
4	Speed Momentum	4000012	Expense	993	USD	2024-01-26	2024-01-26	110065	
	5 Speed Momentum	4000010	Expense	3.357	USD	2024-02-20	2024-02-20	506529	Invalid sample size. Please choose a number between 1 and 26.
(5 Speed Momentum	4000012	Expense	2.083	USD	2024-01-09	2024-01-09	988762	_
	7 Speed Momentum	4000012	Expense	3.035	USD	2024-02-13	2024-02-13	653797	
8	B Speed Momentum	4000010	Expense	6.391	USD	2024-02-02	2024-02-02	653746	ОК
9	9 Speed Momentum	4000012	Expense	1.694	USD	2024-03-09	2024-03-09	442252	
1(Speed Momentum	4000010	Expense	5.633	USD	2024-04-08	2024-04-08	743105	
1:	Speed Momentum	4000012	Expense	2.761	USD	2024-04-12	2024-04-12	745425	
12	2 Speed Momentum	4000012	Expense	6.964	USD	2024-05-04	2024-05-04	657069	
13	3 Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239	
14	1 Speed Momentum	4000010	Expense	7.993	USD	2024-05-12	2024-05-12	537409	
15	5 Speed Momentum	4000012	Expense	1.611	USD	2024-05-05	2024-05-05	370196	
10	5 Speed Momentum	4000010	Expense	5.102	USD	2024-05-14	2024-05-14	429096	
17	7 Speed Momentum	4000012	Expense	5.735	USD	2024-02-26	2024-02-26	225401	
18	B Speed Momentum	4000012	Expense	3.893	USD	2024-01-05	2024-01-05	375575	
19	9 Speed Momentum	4000012	Expense	417	USD	2024-02-15	2024-02-15	760250	
20	Speed Momentum	4000010	Expense	6.392	USD	2024-01-08	2024-01-08	471297	
2:	1 Speed Momentum	4000012	Expense	2.031	USD	2024-04-27	2024-04-27	496452	
22	2 Speed Momentum	4000012	Expense	8.373	USD	2024-02-24	2024-02-24	856299	
23	3 Speed Momentum	4000012	Expense	4.570	USD	2024-04-29	2024-04-29	776847	
24	Speed Momentum	4000010	Expense	7.890	USD	2024-04-11	2024-04-11	713853	
25	5 Speed Momentum	4000012	Expense	396	USD	2024-05-05	2024-05-05	735147	
20	5 Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819	



3. Sample sheet. The selected samples will be displayed on a separate sheet, which you will give a name to.



Example: For this exercise, our "Population" sheets contain 26 items. As a range, we have selected all the items, which are 26, and we have named our sample sheet "Expense". By following the steps outlined above, we will have the 'Population' sheet containing all the information at the top, and the 'Expense' sheet will be displayed separately with the randomly generated samples.

Population Sheet:

1	A	В	C	D	E	F	G	Н	I
1									
2		Population Size	26						
3		Sample Size	5						
4		Sample Name	Expense						
5		Selected Samples	Expense						
6									
7									
8									
9	Item Number	Company Name		GL Account Name	Amount	Currency			Invoice Number
10		Speed Momentum		Expense	3.743	USD	2024-02-28	2024-02-28	591668
11		Speed Momentum		Expense	8.543	USD	2024-02-06	2024-02-06	168521
12		Speed Momentum		Expense	5.850	USD	2024-04-08	2024-04-08	277614
13		Speed Momentum		Expense	993	USD	2024-01-26	2024-01-26	110065
14		Speed Momentum		Expense	3.357	USD	2024-02-20	2024-02-20	506529
15		Speed Momentum		Expense	2.083	USD	2024-01-09	2024-01-09	988762
16		Speed Momentum		Expense	3.035	USD	2024-02-13	2024-02-13	653797
17		Speed Momentum		Expense	6.391	USD	2024-02-02	2024-02-02	653746
18		Speed Momentum		Expense	1.694	USD	2024-03-09	2024-03-09	442252
19		Speed Momentum		Expense	5.633	USD	2024-04-08	2024-04-08	743105
20		Speed Momentum		Expense	2.761	USD	2024-04-12	2024-04-12	745425
21		Speed Momentum		Expense	6.964	USD	2024-05-04	2024-05-04	657069
22		Speed Momentum		Expense	5.054	USD	2024-03-17	2024-03-17	407239
23		Speed Momentum		Expense	7.993	USD	2024-05-12	2024-05-12	537409
24		Speed Momentum		Expense	1.611	USD	2024-05-05	2024-05-05	370196
25		Speed Momentum		Expense	5.102	USD	2024-05-14	2024-05-14	429096
26		Speed Momentum		Expense	5.735	USD	2024-02-26	2024-02-26	225401
27		Speed Momentum		Expense	3.893	USD	2024-01-05	2024-01-05	375575
28		Speed Momentum		Expense	417	USD	2024-02-15	2024-02-15	760250
29		Speed Momentum		Expense	6.392	USD	2024-01-08	2024-01-08	471297
30		Speed Momentum		Expense	2.031	USD	2024-04-27	2024-04-27	496452
31		Speed Momentum		Expense	8.373	USD	2024-02-24	2024-02-24	856299
32		Speed Momentum		Expense	4.570	USD	2024-04-29	2024-04-29	776847
33		Speed Momentum		Expense	7.890	USD	2024-04-11	2024-04-11	713853
34 35		Speed Momentum		Expense	396	USD	2024-05-05	2024-05-05	735147
	26	Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819
36 37									
57		ulation Expense	e (+)						



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Sample Sheet:

1	A	В	C	D	E	F	G	Н	I
1									
2		Population Size	26						
3		Sample Size	5						
4		Sample Name	Expense						
5		Population	Population						
6									
7									
8									
9	Item Number	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number
10	11	Speed Momentum	4.000.012	Expense	2.761	USD	2024-04-12	2024-04-12	745425
11	25	Speed Momentum	4.000.012	Expense	396	USD	2024-05-05	2024-05-05	735147
12	13	Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239
13	14	Speed Momentum	4000010	Expense	7.993	USD	2024-05-12	2024-05-12	537409
14	23	Speed Momentum	4000012	Expense	4.570	USD	2024-04-29	2024-04-29	776847
15									
16									
17									
18									
1	Pop	oulation Expense	+						
-									

Both population and sample sheet contain all necessary information for Random Sampling (Population Size and Sample Size). Also, hyperlinks are added between population and sample sheet.



Random Systematic Sampling



The Random Systematic Sampling Tool automates the process of creating a randomized systematic sample from a selected data range within an Excel workbook. Before starting using this tool make your that:

Your selected range does not have any hidden columns or rows

Let's get started!

1. Select a rectangular range always including the headers

Input	?	×
Select a range for sampling (headers included):		
ОК	Cancel	

Example of selecting a rectangular range:

1	A	В	С	D	E	F	G	н	1	J	K		L	M		N
1	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number								
2	Speed Momentum	4000010	Expense	3.743	USD	2024-02-28	2024-02-28	591668								
3	Speed Momentum	4000012	Expense	8.543	USD	2024-02-06	2024-02-06	168521	Inpu	t				?	\times	
4	Speed Momentum	4000010	Expense	5.850	USD	2024-04-08	2024-04-08	277614	Selec	t a range fo	r sampling (l	headers	included	n:		
5	Speed Momentum	4000012	Expense	993	USD	2024-01-26	2024-01-26	110065		1:SH\$27	i saniping (ressers	meroree	471 		
6	Speed Momentum	4000010	Expense	3.357	USD	2024-02-20	2024-02-20	506529								
7	Speed Momentum	4000012	Expense	2.083	USD	2024-01-09	2024-01-09	988762				ОК		Cano	el	
8	Speed Momentum	4000012	Expense	3.035	USD	2024-02-13	2024-02-13	653797	-				_		_	
9	Speed Momentum	4000010	Expense	6.391	USD	2024-02-02	2024-02-02	653746								
10	Speed Momentum	4000012	Expense	1.694	USD	2024-03-09	2024-03-09	442252								
11	Speed Momentum	4000010	Expense	5.633	USD	2024-04-08	2024-04-08	743105								
12	Speed Momentum	4000012	Expense	2.761	USD	2024-04-12	2024-04-12	745425								
13	Speed Momentum	4000012	Expense	6.964	USD	2024-05-04	2024-05-04	657069								
14	Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239								
15	Speed Momentum	4000010	Expense	7.993	USD	2024-05-12	2024-05-12	537409								
16	Speed Momentum	4000012	Expense	1.611	USD	2024-05-05	2024-05-05	370196								
17	Speed Momentum	4000010	Expense	5.102	USD	2024-05-14	2024-05-14	429096								
18	Speed Momentum	4000012	Expense	5.735	USD	2024-02-26	2024-02-26	225401								
19	Speed Momentum	4000012	Expense	3.893	USD	2024-01-05	2024-01-05	375575								
20	Speed Momentum	4000012	Expense	417	USD	2024-02-15	2024-02-15	760250								
21	Speed Momentum	4000010	Expense	6.392	USD	2024-01-08	2024-01-08	471297								
22	Speed Momentum	4000012	Expense	2.031	USD	2024-04-27	2024-04-27	496452								
23	Speed Momentum	4000012	Expense	8.373	USD	2024-02-24	2024-02-24	856299								
24	Speed Momentum	4000012	Expense	4.570	USD	2024-04-29	2024-04-29	776847								
25	Speed Momentum	4000010	Expense	7.890	USD	2024-04-11	2024-04-11	713853								
26	Speed Momentum	4000012	Expense	396	USD	2024-05-05	2024-05-05	735147								
27	Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819								
28																



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If the rectangular range is not selected correctly, the below message will pop out. After selecting "OK" the range can be selected again.



2. Enter the number of samples to be chosen with the random generator. The number of samples can be between 1 and the total number of items within the population.

Input	?	×
Enter the number of random samples:		
ок	Canc	el

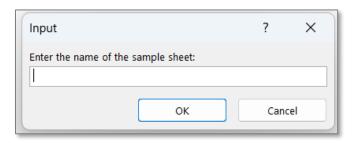
Example: if the total number of items within the population is 26, you must enter a number between 1 and 26. A number >26 will generate an out-of-range error.

If the number of samples exceeds the total number of items within the population, the below error message will appear. After selecting "OK" the number of samples can be entered again.

Item Numbe	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number	
:	Speed Momentum	4000010	Expense	3.743	USD	2024-02-28	2024-02-28	591668	
2	2 Speed Momentum	4000012	Expense	8.543	USD	2024-02-06	2024-02-06	168521	Microsoft Excel ×
	3 Speed Momentum	4000010	Expense	5.850	USD	2024-04-08	2024-04-08	277614	
4	Speed Momentum	4000012	Expense	993	USD	2024-01-26	2024-01-26	110065	
	5 Speed Momentum	4000010	Expense	3.357	USD	2024-02-20	2024-02-20	506529	Invalid sample size. Please choose a number between 1 and 26.
(5 Speed Momentum	4000012	Expense	2.083	USD	2024-01-09	2024-01-09	988762	
	7 Speed Momentum	4000012	Expense	3.035	USD	2024-02-13	2024-02-13	653797	
8	B Speed Momentum	4000010	Expense	6.391	USD	2024-02-02	2024-02-02	653746	ОК
9	9 Speed Momentum	4000012	Expense	1.694	USD	2024-03-09	2024-03-09	442252	
10	Speed Momentum	4000010	Expense	5.633	USD	2024-04-08	2024-04-08	743105	
1:	Speed Momentum	4000012	Expense	2.761	USD	2024-04-12	2024-04-12	745425	
12	2 Speed Momentum	4000012	Expense	6.964	USD	2024-05-04	2024-05-04	657069	
13	3 Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239	
14	1 Speed Momentum	4000010	Expense	7.993	USD	2024-05-12	2024-05-12	537409	
15	5 Speed Momentum	4000012	Expense	1.611	USD	2024-05-05	2024-05-05	370196	
10	5 Speed Momentum	4000010	Expense	5.102	USD	2024-05-14	2024-05-14	429096	
17	7 Speed Momentum	4000012	Expense	5.735	USD	2024-02-26	2024-02-26	225401	
18	B Speed Momentum	4000012	Expense	3.893	USD	2024-01-05	2024-01-05	375575	
19	9 Speed Momentum	4000012	Expense	417	USD	2024-02-15	2024-02-15	760250	
20	Speed Momentum	4000010	Expense	6.392	USD	2024-01-08	2024-01-08	471297	
2:	1 Speed Momentum	4000012	Expense	2.031	USD	2024-04-27	2024-04-27	496452	
22	2 Speed Momentum	4000012	Expense	8.373	USD	2024-02-24	2024-02-24	856299	
23	3 Speed Momentum	4000012	Expense	4.570	USD	2024-04-29	2024-04-29	776847	
24	Speed Momentum	4000010	Expense	7.890	USD	2024-04-11	2024-04-11	713853	
25	5 Speed Momentum	4000012	Expense	396	USD	2024-05-05	2024-05-05	735147	
20	5 Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819	



3. The selected samples will be displayed on a separate sheet, which you will give a name to.



Example: In our example we named the sample sheet "Expense" and in the end population and sample tabs will be created with the random generated samples.

Population Sheet:

	A	В	C	D	E	F	G	Н	
1									
2		Population Size	26						
3		Sample Size	6						
4		Sample Name	Expense						
5		Skip Interval	4,33						
6		Selected Samples	Expense						
7									
8									
9	Item Number	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number
10	1	Speed Momentum	4000010	Expense	3.743	USD	2024-02-28	2024-02-28	591668
11	2	Speed Momentum	4000012	Expense	8.543	USD	2024-02-06	2024-02-06	168521
12	3	Speed Momentum	4000010	Expense	5.850	USD	2024-04-08	2024-04-08	277614
13	4	Speed Momentum	4000012	Expense	993	USD	2024-01-26	2024-01-26	110065
14	5	Speed Momentum	4000010	Expense	3.357	USD	2024-02-20	2024-02-20	506529
15	6	Speed Momentum	4000012	Expense	2.083	USD	2024-01-09	2024-01-09	988762
16	7	Speed Momentum	4000012	Expense	3.035	USD	2024-02-13	2024-02-13	653797
17	8	Speed Momentum	4000010	Expense	6.391	USD	2024-02-02	2024-02-02	653746
18	9	Speed Momentum	4000012	Expense	1.694	USD	2024-03-09	2024-03-09	442252
19	10	Speed Momentum	4000010	Expense	5.633	USD	2024-04-08	2024-04-08	743105
20	11	Speed Momentum	4000012	Expense	2.761	USD	2024-04-12	2024-04-12	745425
21	12	Speed Momentum	4000012	Expense	6.964	USD	2024-05-04	2024-05-04	657069
22	13	Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239
23	14	Speed Momentum	4000010	Expense	7.993	USD	2024-05-12	2024-05-12	537409
24	15	Speed Momentum	4000012	Expense	1.611	USD	2024-05-05	2024-05-05	370196
25	16	Speed Momentum	4000010	Expense	5.102	USD	2024-05-14	2024-05-14	429096
26	17	Speed Momentum	4000012	Expense	5.735	USD	2024-02-26	2024-02-26	225401
27	18	Speed Momentum	4000012		3.893	USD	2024-01-05	2024-01-05	375575
28	19	Speed Momentum	4000012	Expense	417	USD	2024-02-15	2024-02-15	760250
29	20	Speed Momentum	4000010	Expense	6.392	USD	2024-01-08	2024-01-08	471297
30	21	Speed Momentum	4000012	Expense	2.031	USD	2024-04-27	2024-04-27	496452
31	22	Speed Momentum	4000012	Expense	8.373	USD	2024-02-24	2024-02-24	856299
32	23	Speed Momentum	4000012	Expense	4.570	USD	2024-04-29	2024-04-29	776847
33	24	Speed Momentum	4000010		7.890	USD	2024-04-11	2024-04-11	713853
34	25	Speed Momentum	4000012	Expense	396	USD	2024-05-05	2024-05-05	735147
35	26	Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819
36		-		-					
37									



Sample Sheet:

1	Α	В	С	D	E	F	G	Н	I
1									
2		Population Size	26						
3	1	Sample Size	6						
4		Sample Name	Expense						
5		Skip Interval	4,33						
6	1	Population	Population						
7									
8	1								
9	Item Number	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number
10	4	Speed Momentum	4000012	Expense	993	USD	2024-01-26	2024-01-26	110065
11	8	Speed Momentum	4000010	Expense	6.391	USD	2024-02-02	2024-02-02	653746
12	13	Speed Momentum	4000012	Expense	5.054	USD	2024-03-17	2024-03-17	407239
13	17	Speed Momentum	4000012	Expense	5.735	USD	2024-02-26	2024-02-26	225401
14	21	Speed Momentum	4000012	Expense	2.031	USD	2024-04-27	2024-04-27	496452
15	26	Speed Momentum	4000010	Expense	1.231	USD	2024-03-31	2024-03-31	787819
16									
17									
18									
19									
20									
20	1								

Both, population and sample sheet contain all necessary information for Random Systematic Sampling (Population Size, Sample Size and Skip Interval). Also, hyperlinks are added between population and sample sheet.

The skip interval is calculated by dividing the total number of items in the population (population size) by the sample size. In our example, the total population size is 26 and the number of samples is 6. The skip interval is calculated as 26 / 6 = 4,33.

The first item is selected using a random number generator between 1 and the skip interval (always rounded down). In our example, the interval is 4.

The random generator picked the 4th item. To identify the next sample, we add the skip interval to the first selected sample (4 + 4,33 = 8,33). Since 8,33 is closer to 8, the second selected sample is the 8th item. To select the third sample, we add the skip interval to 8,33 (8,33 + 4,33 = 12,66). Since 12,66 is closer to 13, the third selected sample will be the 13th item in the population.

Each subsequent sample is selected in the same way as the second and third samples, continuing until all samples are selected according to the user's specified preferences.



Monetary Unit Sampling



The Monetary Unit Sampling Tool is an advanced procedure designed to execute monetary unit sampling (MUS), a statistical sampling technique commonly used in auditing and accounting.

This subroutine automates the entire process from range selection, verification of data integrity (ensuring the selected monetary column contains only numerical values), through to the generation of a population sheet with added columns for item numbering, running totals, and sample selection. It dynamically creates a new worksheet to display the population and selected samples, calculates key statistics (e.g., total population value, sample size, start interval, skip interval), and marks selected units based on a randomized starting point and systematic selection intervals.

This automated approach not only enhances accuracy and efficiency in sampling tasks but also ensures consistency in applying MUS principles across financial data analysis tasks. Monetary Unit Sampling is sampling approach where the items with larger monetary value, have larger probability to be selected.

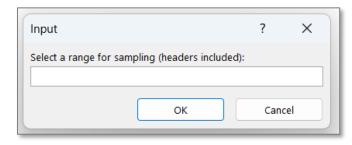
Before starting using this tool make your that:

- Your selected range does not have any hidden columns or rows
- All numbers in the "Monetary Unit" column must be in a number format
- This sampling approach only works with positive amounts. Before you start with the sampling selection, please assure that the negative amounts are removed from the population.



Let's get started!

1. Select a rectangular range always including the headers



Example of selecting a rectangular range:

	А	В	С	D	E	F	G	Н	1	J		K	L	N	1
1	Company Name	GL Account	GL Account Name	Amount	Currency	Document Date	Posting Date	Invoice Number	Range Se	election				2	×
2	Speed Momentum	7000010	Revenue External	3.743	USD	2024-02-28	2024-02-28	591668	runge st	ciccuon				•	\sim
3	Speed Momentum	7000012	Revenue Intercompany	8.543	USD	2024-02-06	2024-02-06	168521	Select a ra	ange for s	sampling (headers i	ncluded):		
4	Speed Momentum	7000010	Revenue External	5.850	USD	2024-04-08	2024-04-08	277614	\$A\$1:\$H	\$27					
5	Speed Momentum	7000012	Revenue Intercompany	993	USD	2024-01-26	2024-01-26	110065			_				
6	Speed Momentum	7000010	Revenue External	3.357	USD	2024-02-20	2024-02-20	506529				OK		Cancel	
7	Speed Momentum	7000012	Revenue Intercompany	2.083	USD	2024-01-09	2024-01-09	988762							
8	Speed Momentum	7000012	Revenue Intercompany	3.035	USD	2024-02-13	2024-02-13	653797							
9	Speed Momentum	7000010	Revenue External	6.391	USD	2024-02-02	2024-02-02	653746							
10	Speed Momentum	7000012	Revenue Intercompany	1.694	USD	2024-03-09	2024-03-09	442252							
11	Speed Momentum	7000010	Revenue External	5.633	USD	2024-04-08	2024-04-08	743105							
12	Speed Momentum	7000012	Revenue Intercompany	2.761	USD	2024-04-12	2024-04-12	745425							
13	Speed Momentum	7000012	Revenue Intercompany	6.964	USD	2024-05-04	2024-05-04	657069							
14	Speed Momentum	7000012	Revenue Intercompany	5.054	USD	2024-03-17	2024-03-17	407239							
15	Speed Momentum	7000010	Revenue External	7.993	USD	2024-05-12	2024-05-12	537409							
16	Speed Momentum	7000012	Revenue Intercompany	1.611	USD	2024-05-05	2024-05-05	370196							
17	Speed Momentum	7000010	Revenue External	5.102	USD	2024-05-14	2024-05-14	429096							
18	Speed Momentum	7000012	Revenue Intercompany	5.735	USD	2024-02-26	2024-02-26	225401							
19	Speed Momentum	7000012	Revenue Intercompany	3.893	USD	2024-01-05	2024-01-05	375575							
20	Speed Momentum	7000012	Revenue Intercompany	417	USD	2024-02-15	2024-02-15	760250							
21	Speed Momentum	7000010	Revenue External	6.392	USD	2024-01-08	2024-01-08	471297							
22	Speed Momentum	7000012	Revenue Intercompany	2.031	USD	2024-04-27	2024-04-27	496452							
23	Speed Momentum	7000012	Revenue Intercompany	8.373	USD	2024-02-24	2024-02-24	856299							
24	Speed Momentum	7000012	Revenue Intercompany	4.570	USD	2024-04-29	2024-04-29	776847							
25	Speed Momentum	7000010	Revenue External	7.890	USD	2024-04-11	2024-04-11	713853							
26	Speed Momentum	7000012	Revenue Intercompany	396	USD	2024-05-05	2024-05-05	735147							
27	Speed Momentum	7000010	Revenue External	1.231	USD	2024-03-31	2024-03-31	787819							
28															
29															
30															
31															
32															

If the rectangular range is not selected correctly, the below message will pop out. After selecting "OK" the range can be selected again.





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If the rectangular range is not selected correctly, the below message will pop out. After selecting "OK" the range can be selected again.

2. Select the Monetary Unit Column.

Additionally, a new window will appear, displaying all the selected headers. The user will be prompted to select the Monetary Unit Column. If the selected column contains cells that are not formatted as numbers, an error message will be displayed, and the user will be asked to select a column consisting solely of number-formatted cells.

eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum	7000010 7000012 7000010 7000012 7000010 7000012	GL Account Name Revenue External Revenue Intercompany Revenue External Revenue Intercompany Revenue External	Amount 3.743 8.543 5.850 993	Currency USD USD USD	Document Date 2024-02-28 2024-02-06 2024-04-08	2024-02-28			Select the	Monetary Unit (Column	×	(
eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum	7000012 7000010 7000012 7000010 7000012	Revenue Intercompany Revenue External Revenue Intercompany Revenue External	8.543 5.850	USD USD	2024-02-06				Select the	Monetary Unit (Column		`
eed Momentum eed Momentum eed Momentum eed Momentum eed Momentum	7000010 7000012 7000010 7000012	Revenue External Revenue Intercompany Revenue External	5.850	USD		2024-02-06	168521		Select the	monetary Unit (Column		
eed Momentum eed Momentum eed Momentum eed Momentum	7000012 7000010 7000012	Revenue Intercompany Revenue External			2024-04-08		100321	Company Name					
eed Momentum eed Momentum eed Momentum	7000010 7000012	Revenue External	993		2024-04-00	2024-04-08	277614	GL Account					l
eed Momentum eed Momentum	7000012			USD	2024-01-26	2024-01-26	110065	GL Account Name Amount					
eed Momentum			3.357	USD	2024-02-20	2024-02-20	506529	Currency					
	7000012	Revenue Intercompany	2.083	USD	2024-01-09	2024-01-09	988762	Document Date Posting Date					
ed Momentum		Revenue Intercompany	3.035	USD	2024-02-13	2024-02-13	653797	Invoice Number					
	7000010	Revenue External	6.391	USD	2024-02-02	2024-02-02	653746						
eed Momentum	7000012	Revenue Intercompany	1.694	USD	2024-03-09	2024-03-09	442252						
eed Momentum	7000010	Revenue External	5.633	USD	2024-04-08	2024-04-08	743105						
eed Momentum	7000012	Revenue Intercompany	2.761	USD	2024-04-12	2024-04-12	745425						
eed Momentum	7000012	Revenue Intercompany	6.964	USD	2024-05-04	2024-05-04	657069						
eed Momentum	7000012	Revenue Intercompany	5.054	USD	2024-03-17	2024-03-17	407239						
eed Momentum	7000010	Revenue External	7.993	USD	2024-05-12	2024-05-12	537409						
eed Momentum	7000012	Revenue Intercompany	1.611	USD	2024-05-05	2024-05-05	370196						
eed Momentum	7000010	Revenue External	5.102	USD	2024-05-14	2024-05-14	429096						
eed Momentum	7000012	Revenue Intercompany	5.735	USD	2024-02-26	2024-02-26	225401						
eed Momentum	7000012	Revenue Intercompany	3.893	USD	2024-01-05	2024-01-05	375575						
eed Momentum	7000012	Revenue Intercompany	417	USD	2024-02-15	2024-02-15	760250						
eed Momentum	7000010	Revenue External	6.392	USD	2024-01-08	2024-01-08	471297						
eed Momentum	7000012	Revenue Intercompany	2.031	USD	2024-04-27	2024-04-27	496452						-
eed Momentum	7000012	Revenue Intercompany	8.373	USD	2024-02-24	2024-02-24	856299						
eed Momentum	7000012	Revenue Intercompany	4.570	USD	2024-04-29	2024-04-29	776847	OK				Cancol	
eed Momentum	7000010	Revenue External	7.890	USD	2024-04-11	2024-04-11	713853	UK				Concer	
ed Momentum	7000012	Revenue Intercompany	396	USD	2024-05-05	2024-05-05	735147				_		
a momentum	7000010	Revenue External	1.231	USD	2024-03-31	2024-03-31	787819						
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4.570 USD	ed Momentum 7000012 Revenue Intercompany 5.735 USD 2024-02-26 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-05 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-08 2024-01-08 700050 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-08 2024-01-08 471297 ed Momentum 7000012 Revenue Intercompany 2.031 USD 2024-04-27 2024-04-28 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-04-24 2024-04-27 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-04-24 2024-02-24 856299 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-11 2024-04-29 776847 ed Momentum 7000012 Revenue Intercompany 4.580 USD 2024-04-11<	ed Momentum 7000012 Revenue Intercompany 5.735 USD 2024-02-26 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-25 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-28 2024-01-25 760250 ed Momentum 7000010 Revenue Intercompany 417 USD 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856299 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-12 2024-04-129 776847	ed Momentum 7000012 Revenue Intercompany 5.735 USD 2024-02-26 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 375575 ed Momentum 7000010 Revenue Intercompany 417 USD 2024-01-08 2024-01-08 ed Momentum 7000012 Revenue Intercompany 2.031 USD 2024-04-27 2024-04-27 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-04-27 426452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-04-29 2074-04-29 776847 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-11 71287 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-29 776847 ed Momentum 7000012 Revenue Intercompany <td>ed Momentum 7000012 Revenue Intercompany 5.735 USD 2024-02-26 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 2024-01-08 471297 ed Momentum 7000012 Revenue Intercompany 2.031 USD 2024-04-27 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-04-24 2024-02-24 856299 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-29 776847 ed Momentum 7000012 Revenue Intercompany 4.550 2024-04-11 2024-04-11 713853 ed Momentum 7000012 Revenue Intercompany 4.550 2024-04-24 204-04-29 776847 ed Momentum 7000012 Revenue Inter</td> <td>ed Momentum 700012 Revenue Intercompany 5.735 USD 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-08 2014-01-08 471297 ed Momentum 7000012 Revenue Intercompany 2.031 USD 2024-02-24 2024-02-24 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-02-24 856299 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-29 776847 od Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-11 2024-01-18 45709 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-19 2024-01-29 776847 ot Momentum <</td>	ed Momentum 7000012 Revenue Intercompany 5.735 USD 2024-02-26 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 2024-01-08 471297 ed Momentum 7000012 Revenue Intercompany 2.031 USD 2024-04-27 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-04-24 2024-02-24 856299 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-29 776847 ed Momentum 7000012 Revenue Intercompany 4.550 2024-04-11 2024-04-11 713853 ed Momentum 7000012 Revenue Intercompany 4.550 2024-04-24 204-04-29 776847 ed Momentum 7000012 Revenue Inter	ed Momentum 700012 Revenue Intercompany 5.735 USD 2024-02-26 225401 ed Momentum 7000012 Revenue Intercompany 3.893 USD 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-05 2024-01-05 375575 ed Momentum 7000012 Revenue Intercompany 417 USD 2024-01-08 2014-01-08 471297 ed Momentum 7000012 Revenue Intercompany 2.031 USD 2024-02-24 2024-02-24 496452 ed Momentum 7000012 Revenue Intercompany 8.373 USD 2024-02-24 856299 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-29 776847 od Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-11 2024-01-18 45709 ed Momentum 7000012 Revenue Intercompany 4.570 USD 2024-04-19 2024-01-29 776847 ot Momentum <

3. Enter the number of samples to be chosen with the random generator. The number of samples can be between 1 and the total number of items within the population.

Sample Size	?	×
Enter the number of MUS samples:		
ОК	Ca	ncel



Example: if the total number of items within the population is 26, you must enter a number between 1 and 26. A number >26 will generate an out-of-range error.

If the number of samples exceeds the total number of items within the population, the below error message will appear. After selecting "OK" the number of samples can be entered again.



4. **Sample sheet.** The selected samples will be displayed on a separate sheet, which you will give a name to.

Input	?	×
Enter the name of the sample sheet:		
ок	Cance	el

In our example we named the sample sheet "Revenue" and in the end population and sample tabs will be created with the random generated samples.



Population Sheet:

	А	В	С	D	E	F	G	Н	- I	J	K	L
1				-								
2		Population Items	26									
3		Population Amount		-								
4		Skip Interval	22.346,66									
5		Start Interval	11.921	-								
6		Number of Samples										
7		Sample Amount	26.692	2								
8		Sample Name	Revenue	_								
9		Selected Samples	Revenue									
10												
11 12	tem Number	Company Name	GL Account	GL Account Name	Amount	Dunning Tatal	Range	Selected Samples	Currency	Desument Deta	Destine Dete	Invoice Number
12		Speed Momentum		Revenue External	3.743	Running Total 3.743	0-3743,35	Selected Samples	USD	2024-02-28	2024-02-28	591668
14		Speed Momentum	-	Revenue Intercompany	8.543	12.286	3743,35-12286,31	x	USD	2024-02-28	2024-02-28	168521
15		Speed Momentum	-	Revenue External	5.850	18.136	12286,31-18136,32		USD	2024-04-08	2024-04-08	277614
16		Speed Momentum	7000012		993	19.129	18136,32-19129		USD	2024-01-26	2024-01-26	
17		Speed Momentum		Revenue External	3.357	22,486	19129-22486,49		USD	2024-02-20	2024-02-20	506529
18		Speed Momentum		Revenue Intercompany	2.083	24.570	22486,49-24569,92		USD	2024-01-09	2024-01-09	988762
19		Speed Momentum	7000012		3.035	27,605	24569,92-27605,23		USD	2024-02-13	2024-02-13	653797
20		Speed Momentum	-	Revenue External	6.391	33.996	27605,23-33996,24		USD	2024-02-02	2024-02-02	653746
21		Speed Momentum	-	Revenue Intercompany	1.694	35.690	33996,24-35689,97	x	USD	2024-03-09	2024-03-09	442252
22	10	Speed Momentum		Revenue External	5.633	41.323	35689,97-41322,54		USD	2024-04-08	2024-04-08	743105
23	11	Speed Momentum	7000012	Revenue Intercompany	2.761	44.083	41322,54-44083,16		USD	2024-04-12	2024-04-12	745425
24		Speed Momentum		Revenue Intercompany	6.964	51.047	44083,16-51047,35		USD	2024-05-04	2024-05-04	657069
25		Speed Momentum	7000012		5.054	56.101	51047,35-56101,48		USD	2024-03-17	2024-03-17	407239
26		Speed Momentum	7000010		7.993	64.095	56101,48-64094,9	x	USD	2024-05-12	2024-05-12	537409
27	15	Speed Momentum	7000012	Revenue Intercompany	1.611	65.706	64094,9-65705,67		USD	2024-05-05	2024-05-05	370196
28	16	Speed Momentum	7000010	Revenue External	5.102	70.808	65705,67-70807,57		USD	2024-05-14	2024-05-14	429096
29	17	Speed Momentum	7000012	Revenue Intercompany	5.735	76.542	70807,57-76542,44		USD	2024-02-26	2024-02-26	225401
30	18	Speed Momentum		Revenue Intercompany	3.893	80.435	76542,44-80435,24	х	USD	2024-01-05	2024-01-05	375575
31	19	Speed Momentum		Revenue Intercompany	417	80.852	80435,24-80851,75		USD	2024-02-15	2024-02-15	760250
32	20	Speed Momentum	7000010	Revenue External	6.392	87.244	80851,75-87243,83		USD	2024-01-08	2024-01-08	471297
33	21	Speed Momentum	7000012	Revenue Intercompany	2.031	89.275	87243,83-89274,71		USD	2024-04-27	2024-04-27	496452
34	22	Speed Momentum	7000012	Revenue Intercompany	8.373	97.647	89274,71-97647,39		USD	2024-02-24	2024-02-24	856299
35	23	Speed Momentum	7000012	Revenue Intercompany	4.570	102.217	97647,39-102216,97	х	USD	2024-04-29	2024-04-29	776847
	24	Speed Momentum	7000010	Revenue External	7.890	110.107	102216,97-110106,61		USD	2024-04-11	2024-04-11	713853
36		Speed Momentum	7000012	Revenue Intercompany	396	110.502	110106,61-110502,39		USD	2024-05-05	2024-05-05	735147
36 37	25			Revenue External	1.231	111.733	110502,39-111733,29		USD	2024-03-31	2024-03-31	787819

Sample Sheet:

	A	В	С	D	E	F	G	Н	1	J	K	L	М
1													
2		Population Items	26										
3		Population Amount	111.733										
4		Skip Interval	22.346,66										
5		Start Interval	11.921										
6		Number of Samples	5										
7		Sample Amount	26.692										
8		Sample Name	Revenue										
9		Population	Population										
10													
11													
12	Item Number	Company Name	GL Account	GL Account Name	Amount	Running Total	Range	Selected Samples	Currency	Document Date	Posting Date	Invoice Number	
13	2	Speed Momentum	7000012	Revenue Intercompany	8.543	12.286	3743,35-12286,31	Х	USD	2024-02-06	2024-02-06	168521	
						25,000	33996,24-35689,97	X	USD	2024-03-09	2024-03-09	442252	
14	9	Speed Momentum	7000012	Revenue Intercompany	1.694	35.690	33330,24-33003,37	~	050	202100000			
	-	Speed Momentum Speed Momentum		Revenue Intercompany Revenue External	1.694 7.993	64.095	56101,48-64094,9	x	USD	2024-05-12	2024-05-12	537409	
15	14		7000010										
15 16	14 18	Speed Momentum	7000010 7000012	Revenue External	7.993	64.095	56101,48-64094,9	x	USD	2024-05-12 2024-01-05		375575	
15 16 17 18	14 18	Speed Momentum Speed Momentum	7000010 7000012	Revenue External Revenue Intercompany	7.993 3.893	64.095 80.435	56101,48-64094,9 76542,44-80435,24	x x	USD USD	2024-05-12 2024-01-05	2024-01-05	375575	
15 16 17 18 19	14 18	Speed Momentum Speed Momentum	7000010 7000012	Revenue External Revenue Intercompany	7.993 3.893	64.095 80.435	56101,48-64094,9 76542,44-80435,24	x x	USD USD	2024-05-12 2024-01-05	2024-01-05	375575	
15 16 17 18 19	14 18	Speed Momentum Speed Momentum	7000010 7000012	Revenue External Revenue Intercompany	7.993 3.893	64.095 80.435	56101,48-64094,9 76542,44-80435,24	x x	USD USD	2024-05-12 2024-01-05	2024-01-05	375575	
14 15 16 17 18 19 20 21	14 18	Speed Momentum Speed Momentum	7000010 7000012	Revenue External Revenue Intercompany	7.993 3.893	64.095 80.435	56101,48-64094,9 76542,44-80435,24	x x	USD USD	2024-05-12 2024-01-05	2024-01-05	375575	
15 16 17 18	14 18 23	Speed Momentum Speed Momentum	7000010 7000012	Revenue External Revenue Intercompany	7.993 3.893	64.095 80.435	56101,48-64094,9 76542,44-80435,24	x x	USD USD	2024-05-12 2024-01-05	2024-01-05	375575	

Both, population and sample sheet contain all necessary information for Random Systematic Sampling (Population Size, Sample Size, Population Amount, Start Interval, Total Samples Amount and Skip Interval). Also, hyperlinks are added between population and sample sheet.

The skip interval is calculated by dividing the total population amount by the sample size. For instance, if the total population amount is 111.733 and the sample size is 5, the skip interval is calculated as 111.733 / 5 = 22.346,66.



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The first item is selected using a random number generator between 1 and the skip interval. In this example, the skip interval is 22.346,66, and the random generator picks the starting point at 11.921. The tool then determines which cumulative range contains this starting point to select the first sample. In this case, it is the 2nd item.

To identify the second sample, the skip interval is added to the starting point (11.921 + 22.346,66 = 34.267,66). The tool determines which cumulative range contains 34.267,66 to select the second sample, which, in this example, is the 9th item.

The process continues similarly for the third sample by adding the skip interval to the interval of the second selected sample (34.267,66 + 22.346,66 = 56.614,32). The tool identifies which cumulative range contains 56.614,32 to select the third sample, which, in this example, is the 14th item.

Each subsequent sample is selected in the same manner until all samples are selected according to the user's specified preferences.

If an item's amount exceeds the skip interval, that item can be selected multiple times. This is indicated by multiple Xs in the 'Selected Samples' column. There is no need to replace the multiple selections of a single item, as this accurately reflects the item's true impact on the total population. Replacing duplicates with other items could distort the sample, potentially leading to inaccurate estimates of total misstatements and sampling risk.

*The newly created sheets for population and selected samples are protected and the user is not allowed to change any cell in those sheets.







To change the language and use your preferred option, click the "Language" button and select your desired language. Please note that to display all characters correctly in Speed Momentum, you may also need to change your system locale to match your selected language.

You can do that using the following steps:

1. Open Control Panel



2. Select "Change date, time, or number formats.



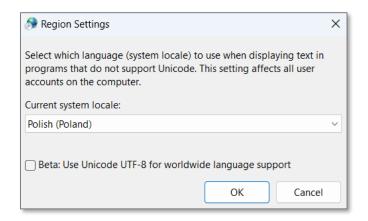
3. Select "Change system locale ... "





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4. Choose the same language as the one selected in the tool (ex. Polish) and click OK.



5. Restart your computer

