Importing, Consolidating, & Maximizing the Value of Excel Data

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How Did You Get Your Excel?



Manual Entry





Database Query

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x∄

EXCEL

How's Your Data Structure?



Simple Data Structure



Complex Data Structure



Excel Import Wizard



Simple Data Structure Easily work with the data where it's at:

- Anywhere in the worksheet, visible or hidden
- Multiple worksheets
- Merged cells
- Multiple row or hierarchical column headers



Complex Data Structure



Excel Import Wizard

We'll use the Wizard to help us:

Select the <u>worksheets</u> with the desired data

Use the <u>Data Preview</u> to guide our selection

> Modify <u>settings</u> to line up the data in our sights

ata Preview —								Worksheets	
F	Sample ID	Run Date	Method	Result	Column 5	Column 6	Colu	Select sheets to open January	Custom setting
1	200112	1/1/2018	Protein	9.7	•		•	February	
2	200112	1/1/2018	Purity	60	•		•	Selec	
3	200112	1/1/2018	Total Nitrogen	95	•		•	Selec	L dii
4	200112	1/1/2018	Binder	1.3	•				
5	200112	1/1/2018	Stabilizer	0.01	•		•		
6	200112	1/1/2018	pН	8			•		
7	200112	1/1/2018	Preservative	0.0024	•		•		
8	200112	1/1/2018	Puffer Salt	0.85	•		•		
9	200112	1/1/2018	Protein	13	•		•		
10	200113	1/1/2018	Purity	53	•		•		
11	200113	1/1/2018	Total Nitrogen	120	•		•		
12		1/1/2018		1.2	•		•		
12	200113	1/1/2018	Stabilizer	0.01	•		•		
14	200113	1/1/2018	pН	7.9	•		•		
15	200113	1/1/2018	Preservative	0.0024	•		•		
16	200113	1/1/2018	Buffer Salt	0.86	•		•		
17	200114	1/1/2018	Protein	8.9	•		•		
18	200114	1/1/2018	Purity	54	•		•		
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			Restore D	efault Setting	IS R	ack Next		Import Can	cel H

Excel Import Wizard - Example Column and Row Starts

		в					
	Table 1World potato pr	oduction, 2010-2014					
	Country	2010	2011	2012	2013	2014	
				Metric tons			
	China	66,318,167	64,596,119	70,223,331	68,139,264	70,048,000	
	Russian Federation	33,979,460	34,965,160	32,870,840	36,746,512	35,914,240	
	India	24,713,200	22,488,400	24,450,000	25,000,000	25,000,000	
	Ukraine	19,838,100	17,344,000	16,619,500	18,453,000	20,755,000	
9	United States	23,297,460	19,862,270	20,856,270	20,766,100	20,680,770	
	Poland	24,232,376	19,378,860	15,523,900	13,731,500	13,746,000	
	Germany	13,694,283	11,916,834	11,491,727	10,231,737	13,044,000	
12	Netherlands	8,126,800	7,015,253	7,363,000	6,468,762	7,488,000	
	France	6,434,053	6,077,891	6,874,391	6,348,126	7,254,221	N
14	United Kingdom	6,636,000	6,649,000	6,966,000	5,918,000	6,000,000	
	Canada	4,567,330	4,220,430	4,705,130	5,282,420	5,170,790	
16	Turkey	5,370,000	5,000,000	5,200,000	5,300,000	4,800,000	
17	Romania	3,469,800	3,997,057	4,077,633	3,947,177	4,230,210	
18	Iran	3,658,035	3,485,814	3,756,000	3,750,000	4,180,000	
19	Bangladesh	2,933,000	3,216,000	2,994,000	3,386,000	3,908,000	
20	Belgium	2,921,900	2,564,300	2,909,000	2,522,095	3,229,622	
21	Peru	3,273,820	2,681,825	3,297,997	3,151,355	2,996,090	
	Colombia	2,882,940	2,873,870	2,834,820	2,872,284	2,959,380	
23	Brazil	2,561,320	2,848,620	3,126,410	3,047,000	2,891,530	
24	Japan	2,898,000	2,959,000	3,074,000	2,929,000	2,839,000	
25	Spain	3,078,059	2,992,422	3,078,140	2,790,000	2,750,400	
26	Kazakhstan	1,692,600	2,184,800	2,268,800	2,308,300	2,243,300	
27	Korea	1,870,000	2,268,000	1,884,000	2,023,000	2,052,000	
28	Argentina	2,220,529	2,497,156	2,262,120	2,094,525	2,021,025	
29	Egypt	1,769,910	1,903,134	1,985,317	2,039,351	1,950,000	
30	Pakistan	1,868,400	1,666,100	1,721,600	1,946,300	1,854,700	
31	Italy	2,053,043	2,009,851	1,855,319	1,610,435	1,809,097	
32	Algeria	1,207,690	967,232	1,333,465	1,879,918	1,800,000	
<u></u>	Haviaa	1 607 017	1 600 460	1 402 500	1 724 000	1 73/ 010	
	A Detato F	Production Raw	Formatted	Stability Data	🕀 i 🔳		

Example: exploring potato production over time, ensuring food sustainability for citizens.

Complexity:

- Column headers start after 1st Excel row
- Rows of data separated from column headers



Excel Import Wizard - Example Column and Row Starts

	А	в	c l	D	E	F
4			-	D	E	F
	Table 1 World potate pro	duction, 2000, 200	A			
2	Country	2010	2011	2012	2013	2014
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5	China	66,318,167	64,596,119	70,223,331	68,139,264	70,048,000
- 5	Russian Federation	00,070,400	94,905,100	02,070,040	00,740,512	05,014,240
7	India	24,713,200	22,488,400	24,450,000	25,000,000	25,000,000
8	Ukraine	19,838,100	17,344,000	16,619,500	18,453,000	20,755,000
9	United States	23,297,460	19,862,270	20,856,270	20,766,100	20,680,770
10	Poland	24,232,376	19,378,860	15,523,900	13,731,500	13,746,000
11	Germany	13,694,283	11,916,834	11,491,727	10,231,737	13,044,000
12	Netherlands	8,126,800	7,015,253	7,363,000	6,468,762	7,488,000
13	France	6,434,053	6,077,891	6,874,391	6,348,126	7,254,221
14	United Kingdom	6,636,000	6,649,000	6,966,000	5,918,000	6,000,000
15	Canada	4,567,330	4,220,430	4,705,130	5,282,420	5,170,790
30	Tuskau	5 270 000	E 000.000	5 200 000	E 200.000	4 000 000

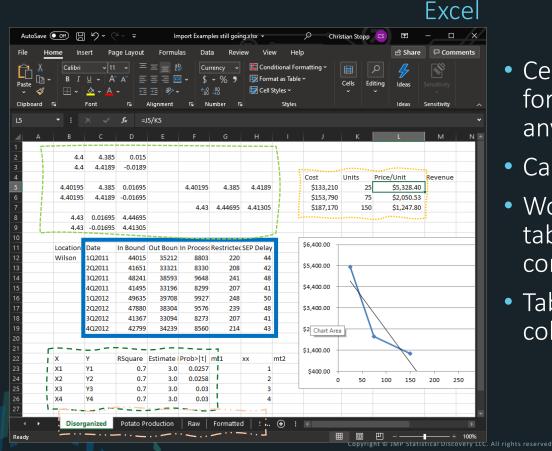
Easily managed!

- Column headers start after 1st Excel row
- Rows of data separated from column headers

Excel Import W	izard						_	
- Data Preview —								Worksheets
								Custom
F	Country	2010	2011	2012	2013	2014		Potato Production
1	China	66318167	64596119	70223331	68139264	70048000	^	Potato Production
2	Russian Federation	33979460	34965160	32870840	36746512	35914240		Formatted
3	India	24713200	22488400	24450000	25000000	25000000		Stability Data
4	Ukraine	19656100	17544000	10019300	18433000	20755000	-	Disorganized
5	United States	23297460	19862270	20856270	20766100	20680770		Numeric and Character
6	Poland	24232376	19378860	15523900	13731500	13746000		LIMS (1)
7	Germany	13694283	11916834	11491727	10231737	13044000		LIMS (2)
8	Netherlands	8126800	7015253	7363000	6468762	7488000		LIMS (3)
9	France	6434053	6077891	6874391	6348126	7254221		LIMS (4) LIMS (5)
10	United Kingdom	6636000	6649000	6966000	5918000	6000000		Experiment
11	Canada	4567330	4220430	4705130	5282420	5170790		Power Converter
12	Turkey	5370000	5000000	5200000	5300000	4800000		Process Worksheet

Individual Worksheet Settings	Preview Pane Refresh
✓ Worksheet contains column headers	 Update settings on any change
2 🗧 Column headers start on row	Update now
1 Number of rows with column headers	Show all rows
5 🗧 Data starts on row	
1 🗧 Data starts on column	
Concatenate worksheets and try to match columns	
Create column with worksheet name when conca	tenating
✓ Use for all worksheets	
Restore Default Settings	Back Next

Why Do We Need a Wizard Anyway?



- Cell-based properties, formulas, etc. can differ between any pair of cells
- Can contain multiple worksheets
- Worksheet can contain multiple tables...or random content...anywhere
- Tables can have multiple rows of column headers



Why Do We Need a Wizard Anyway?

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- Contains a single table
 - Each column reflects a single attribute or measure across all rows

Each row is a single unit or observation, e.g. one experimental run, one wafer, one patient, one patient visit, etc.*

Ideally each row has a unique ID, i.e. one or multiple column values making it distinct from the other rows

☆ □ ▼



Excel \rightarrow JMP

Have the End Goal in Mind

JMP Documentation: "Before you import a worksheet, open the spreadsheet in Excel and decide how you want the data to be structured in the final data table."

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Generally depends on the analyses you intend to do...but mostly requires "JMP" properties as outlined earlier.

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DISCOVERY

Excel \rightarrow JMP

Have the End Goal in Mind

JMP Documentation: "Before you import a worksheet, open the spreadsheet in Excel and decide how you want the data to be structured in the final data table."

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7					4.43	4.44695	4.41305		\$187,170	150	\$1,247.80	
3	4.43	0.01695	4.44695									
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2	Wilson	10,2011	44015	35212	8803	220	44					
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5	X3	¥3	0.7	3.0			3		-			
	X4	¥4	0.7	3.0	0.03		4					
6 7												

What can I do in the Excel Import Wizard to achieve this?

What can I do using the options in JMP under Tables to achieve this?

Generally depends on the analyses you intend to do...but mostly requires "JMP" properties as outlined earlier.

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Source		Date	In Bound	Out Bound	In Process	Restricted	SEP Delay	
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Columns (6/0)	2	2Q2011	41651	33321	8330	208	42	
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Restricted	7	3Q2012	41367	33094	8273	207	41	
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More Excel Import Wizard Examples Let's Roll!



Simple Import Let's explore several examples building in Excel complexity

Along the way we'll also:

- See some JMP data tips
- Use some data to easily generate related reports



Complex Import



What's Behind that Next Button?

Managing Merged Cells and...

	В	С	D	E	F	G	Н	I.	N
1									
2		Byron	Wingerd: (Quarterly Tr	ansaction S	ummary		K	
3				Move Order	s	Excep	tions		
4	Location	Date	In Bound	Out Bound	In Process	Restricted	SEP Delay		
5		Q12011	44015	35212	8803	220	44		
6		Q22011	41651	33321	8330	208	42		
7		Q32011	48241	38593	9648	241	48		
8		Q42011	41495	33196	8299	207	41		
9		Q12012	49635	39708	9927	248	50		
10		Q22012	47880	38304	9576	239	48		
11		Q32012	41367	33094	8273	207	41		
12	Wilson	Q42012	42799	34239	8560	214	43		
13		Q12011	54180	43344	10836	271	54		
14		Q22011	52755	42204	10551	264	53		
15		Q32011	59377	47502	11875	297	59		
16		Q42011	58810	47048	11762	294	59		
17		Q12012	53805	43044	10761	269	54		
18		Q22012	54808	43846	10962	274	55		
19		Q32012	57855	46284	11571	289	58		
20	LeGrange	Q42012	55178	44142	11036	276	55		
21		Q12011	38884	31107	7777	194	39		
22		Q22011	40464	32371	8093	202	40		
23		Q32011	38998	31198	7800	195	39		
24		Q42011	42547	34038	8509	213	43		
25		Q12012	45474	36379	9095	227	45		
26		Q22012	42945	34356	8589	215	43		
27		Q32012	45525	36420	9105	228	46		
28	Olester	Q42012	45977	36782	9195	230	46		
29									
30									

Example: monitoring transaction order flow

Managed:

 Column headers & data start after 1st Excel row

Complexity:

- Multiple rows for column headers?
- Merged cells



What's Behind that Next Button?

Managing Merged Cells and...

	Α	В	С	D	E	F	G	Н	l.	
1										
2			Byron	Wingerd:	Quarterly Tr	ansaction S	ummary			
3					Move Order	s	Excep	tions		
4		Location	Date	In Bound	Out Bound	In Process	Restricted	SEP Delay		
5			Q12011	44015	35212	8803	220	44		
6			Q22011	41651	33321	8330	208	42		
7			Q32011	48241	38593	9648	241	48		
8			Q42011	41495	33196	8299	207	41		
9			Q12012	49635	39708	9927	248	50		
10			Q22012	47880	38304	9576	239	48		
11			Q32012	41367	33094	8273	207	41		
12		Wilson	Q42012	42799	34239	8560	214	43		
13			012011	54180	43344	10836	271	54		
14			222011	52755	42204	10551	264	53		
15			032011	59377	47502	11875	297	59		
16			242011	58810	47048	11762	294	59		
17			012012	53805	43044	10761	269	54		
18			022012	54808	43846	10962	274	55		
19			232012	57855	46284	11571	289	58		
20		LeGrange	242012	55178	44142	11036	276	55		
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Tackled!

- Multiple rows for column headers?
- Merged cells

Þ	Location	Date	In Bound	Out Bound	In Process	Restricted	SEP Delay		
1	Wilson	Q12011	44015	35212	8803	220	44		
2	Wilson	Q22011	41651	33321	8330	208	42		
3	Wilson	Q32011	48241	38593	9648	241	48		
4	Wilson	Q42011	41495	33196	8299	207	41		
5	Wilson	Q12012	49635	39708	9927	248	50		
6	Wilson	Q22012	47880	38304	9576	239	48		
7	Wilson	Q32012	41367	33094	8273	207	41		
8	Wilson	Q42012	42799	34239	8560	214	43		
9	LeGrange	Q12011	54180	43344	10836	271	54		
10	LeGrange	Q22011	52755	42204	10551	264	53		
11	LeGrange	Q32011	59377	47502	11875	297	59		
12	LeGrange	Q42011	58810	47048	11762	294	59		
13	LeGrange	Q12012	53805	43044	10761	269	54		

Individual Worksheet Settings	Preview Pane Refresh
 Worksheet contains column headers 	 Update settings on any change
3 Column headers start on row	Update now
1 🗧 Number of rows with column headers 🕌	Show all rows
4 🗧 Data starts on row	
그 Data starts on column 다	
Concatenate worksheets and try to match columns	
Create column with worksheet name when conca	tenating Next
 Use for all worksheets 	INEXT



What's Behind that Next Button? Managing Merged Cells & Sneaky Data

Data Preview -											- Data Preview -										_
F	Location	Date	In Bound	Out Bound	In Process	Restricted	SEP Delay						Date	In Bound	Out Bound	In Process	Restricte d	SEP Delay	Column 8	Degree	
		C12011	44015	35212	8803	220	44	4		^		Wilson	C22011	41651	33321	8330	208	42	Column a	Degree	+
		C22011	41651	33321	8330	208	42	2				2	C32011	48241	38593	9648	241	48		Business	N
		C32011 C42011	48241 41495	38593 33196	9648 8299	241 207	48	8				3	C 12011	41495	33196	8299	207	41			+
		C12012	49635	39708	9927	248	50	0				4	C12012	49635	39708	9927	248	50		Communications	; 1
	5 Wilson	C22012	47880	38304	9576	239	48	8				5	C22012	47880	38304	9576	239	48		•	
		C32012	41367	33094	8273	207	41	1				5	C32012	41367	33094	8273	207	41		 CompMath 	5
		C42012	42799	34239	8560	214	43	3				7	C 42012	42799	34239	8560	214	43		•	
		C12011	54180	43344	10836	271	54					8 LeGrange	C12011	54180	43344	10836	271	54		Education	1
	D LeGrange 1 LeGrange	C22011 C32011	52755 59377	42204 47502	10551 11875	264 297	53 59					9	C22011	52755	42204	10551	264	53		•	
		C42011	58810	47 302	11762	297	59				1	0	C32011	59377	47502	11875	297	59		Engineering	
	8 LeGrange	C12012	53805	43044	10761	269	54				1		C42011	58810	47048	11762	294	59		•	
	4 LeGrange	C22012	54808	43846	10962	274	55	5			1	2	C12012	53805	43044	10761	269	54		Liberal Arts	
1		C32012	57855	46284	11571	289	58	8			1	3	C22012	54808	43846	10962	274	55		•	
Individu	6 LeGrange al Works	C42012	55178	44142	11036	276	55 Dre	s review Pane Refres	sh		Individu	ual Works	hast Set	tings	10001		200	raviaw	Pane Refresh		Ĩ
mannae		meet 5	cungs				T	review Functivenes	311		[maividu	Idi WUIKS	neet sei	ungs —			- The	Teview i	rane kenesi		
Trea	t multipl	e colu	mn hea	der line	s as hie	rarchies		/ Update settings	on any chang	ge 👘	Trea	t multipl	e colum	nn headei	r lines as	hierarc	hies 🛛 🖸	🗸 Upda	ate settings o	on any chang	g
🖌 Rep	licate dat	ta in sp	oanned i	rows			U	lpdate now			🗌 Rep	licate dat	ta in spa	inned rov	vs		l	Update i	now		
🖌 Sup	press hid	lden ro	WS .					Show all rows			🗸 Sup	press hid	den rov	vs			Шг	Show	v all rows		
🖌 Sup	press hid	lden ci	olumns								🗌 Sup	press hid	den col	umns					- an rows		_
🖌 Sup	press em	pty co	lumns				DA	Advanced Options	5		🗌 Sup	press em	pty colu	umns				Advanc	ed Options		
•	Data en	ds wit	h row 占	£							· ·	Data en	ds with	row 🖧							
	Data en	ids wit	h colum	n 🕂			γ ι	Default se	-			Data en	ds with	column	4-						
								Check	ed						-						
🗸 Use fo	or all wor	kshee	ts								✓ Use fo	or all wor	ksheets								

Multiple Tables in One Worksheet Two Tables, One Column Header Row

Example: semiconductor process control monitoring data

Complexity:

Two tables in one worksheet
Only one row of column labels
Column labels below one table

	E	F	G	Н	I	J	K	/ L	M	N	0	P
1		Test							est Group	1		
2		Low Spec	104.41	164.39	136.12	96.59	118.68	59.62	-54.43	97.32	139.2	95
3		High Spec	131.89	429.65	1067.01	130.9	141.9	67.2	531.91	144.29	145.41	. 115
4	File	Serial#	NPN1	PNP1	PNP2	NPN2	PNP	IVP1	PNP4	NPN3	IVP2	NPN4
5	AA00001390	42	114.5558	322.6168	469.3903	115.9585	130.3788	73.48429	262.3514	119.4785	139.5888	105.3
6	AA00001390	43	120.0437	333.1281	437.7811	120.9741	132.7369	75.60749	269.9501	122.255	144.6335	110.6
7	AA00001390	44	114.9265	348.9788	532.1281	117.7531	136.832	73.33047	273.2739	120.0331	136.3693	105.7
8	AA00001390	45	111.7564	268.5481	373.0586	114.0926	136.9692	75.76474	236.9356	116.9701	146.4774	103.5
9	AA00001390	46	111.5451	295.0732	338.9007	113.7781	136.6226	70.5461	244.3806	116.215	132.3285	103.5
10	AA00002265	47	113.5236	323.8333	469.9922	116.488	137.4804	72.94513	267.186	120.041	138.5667	104.3
11	AA00002265	48	111.7493	369.3205	563.0845	115.9353	138.094	75.67565	290.7748	115.5722	151.04	105.2
12	AA00002265	49	114.4114	342.9874	479.3781	115.7628	142.1059	76.48749	282.5898	118.9923	145.8562	104.8
13	AA00002265	50	118.4898	315.5224	530.2656	116.3478	134.75	66.45725	258.2389	120.9283	131.3656	106.7



Multiple Tables in One Worksheet Two Tables, One Column Header Row

																м			
				1			Test								Т	est Grou	01		
				2		Ŀ	ow Spec	104.41	164.39	-1	136.12		96.59	118.68	59.62	-54.4	3 97.32	139.2	95
				з		н	igh Spec	131.89	429.65	10	067.01		130.9	141.9	67.2	531.9	144.29	145.41	115
				4 File			Serial#	NPN1	PNP1	PNF	2	NPN	2	PNP3	IVP1	PNP4	NPN3	IVP2	NPN4
				5 AA	0001390)	42	114.5558	322.6168	469	9.3903	115	.9585	130.3788	73.48429	262.351	119.4785	139.5888	105.3
				6 AA	0001390)	43	120.0437	333.1281	437	7.7811	120	.9741	132.7369	75.60749	269.950	1 122.255	144.6335	110.6
				7 AA	0001390)	44	114.9265	348.9788	532	2.1281	117	.7531	136.832	73.33047	273.273	9 120.0331	136.3693	105.7
				8 AA	0001390)	45	111.7564	268.5481	373	3.0586	114	.0926	136.9692	75.76474	236.935	5 116.9701	146.4774	103.5
				9 AA	0001390)	46	111.5451	295.0732	338	3.9007	113	.7781	136.6226	70.5461	244.380	5 116.215	132.3285	103.5
													488	137.4804	72.94513	267.18	5 120.041	138.5667	104.3
ew -													353	138.094	75.67565	290.774	3 115.5722	151.04	105.2
J.			Wafer ID										7628	142.1059	76.48749	282.589	8 118.9923	145.8562	104.8
	lot_id	wafer	in lot ID	Column		ile	Serial#	NPN1	PNP1		PNF	-	3478	Det	a Previe				
	lot1		lot1_1		1 AA000				6 322.616		469.3			- Dat	a Previe	.w			
	lot1 lot1		lot1_1 lot1_1		2 AA000 3 AA000				3 333.12 3 348.978		437.78							1	-
	lot1		lot1_1		4 AA000				1 346.978 16 268.548							_			
	lot1		lot1 1		5 AA000				35 295.073		338.90					₹ s	ierial#	NPN	J1
	lot1		lot1 2		1 AA000			113.52359			469.99								
	lot1		lot1_2		2 44000			111.74930				-				I LC	w Spec	104	4.41
	at caller	WI					Preview Pa				9.37	8				2 Hi	gh Spec	13	1.89
		Worksheet Se	-								0.26	5							
~	Works	heet contains	column h	eaders			✓ Update	settings o	n any chan	ge	1.45	4!			. Individ	lual Wor	ksheet Set	ings —	
	4 📫	Column hea	ders start (on row 🔓	£-		Update no	w			137.6	52!			J W	orksheet	contains o	olumn he	aders
	1 .	Number of a		ت معارفة الم	endere E)1.16	i0'			4	- Col	umn head	ors start o	
	•	Number of I			eauers _	ï	Show a	II rows			6.31				-4	- CU	unin fiedu	cra start u	11100
- [5 🛟	Data starts o	on row 규								9.67				1	🔺 Nu	mber of ro	ws with c	olumn
				_							6.11								
	1 🛟	Data starts o	on column	42)3.52	4			2	📥 Dat	a starts or	row II	

4.412

15.589

)1.432

Data Preview

✓ Use for all worksheets

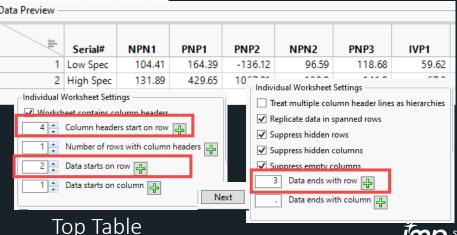
Concatenate worksheets and try to match columns

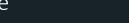
Create column with worksheet name when concatenating

Bottom Table

Case closed:

- Two tables in one worksheet
- Only one row of column labels
- Column labels below one table





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Multiple Tables in One Worksheet

Bonus!

Power Converter 2 -	JMP Pro [2]								_		×			
<u>File Edit Tables Ro</u>	ws Cols DO	Analyze	Granh	Tools	Add-Ins	View	Window	Heln						
				_		1.00	11.110011	Terb						
■ Power Converter 2		•			••••		1							
Source	L E	Serial#	NPN1	PNP1	PNP2	NPN2	PNP3	IVP1	PNP4	NPN3	IVP2			
	1	Low Spec	104.41	164.39	-136.12	96.59	110.00	50.62	54.43	07.00	120.2			
 Columns (129/0) 	2	High Spec	131.89	429.65	1067.01	130.9	_			Limits - JMP			-	
۹												Tools Add-Ins		
🔥 Serial# 🛛 🔨							: 🖼 🔁 💆		1 🖪 🕄	🗇 📲 🔛 I	10 🖽 📜	💊 ? 🕆 🕀	() a p q	+ /
🚄 NPN1							⊿ 💌 Mana	ge Spec L	imits					
🔺 PNP1 🛛 🗸													Proces	
	1				_		Column		LSL	Target	USL	Show Limit		
🐺 Transpose of Power C	Converter 2 - JM	P Pro [2]		-		\times	NPN1		4.41		131.89			
<u>File E</u> dit <u>T</u> ables <u>R</u> ow	s Cols DOF	Analyze	Granh	Tools	Add-Ins		PNP1		4.39		429.65			
View Window Help		Analyze	Qiabii		Auu-IIIs		PNP2 NPN2	-13	6.12		1067.01 130.9			1
							PNP3		8.68		141.9			
🚑 🍋 🧉 🛃 🐰 🖻) 🖺 🛃 📥	_ 🔛 🛅	4 E.	^y x 🏓	V -		IVP1		9.62		67.2		dia Denne	C
						_	PNP4		4.43		531.91		A Power	
Transpose of Po	۹ 🗸 📮						NPN3		7.32		144.29		<u>File</u> <u>E</u> dit	Table
Source	• •	Variable	LSL	US	L		IVP2 NPN4		39.2 5.89		145.41		: 🚑 🔁 🛛	i 🚽
	1	NPN1	104.41	131	.89	~	SIT1		5.48		185.72			_
		PNP1	164.39	429	65	_	INM1	5	7.03		99		⊿ ▼ Proc	ess S
 Columns (3/0) 						-	INM2		63.8		65.18			
		PNP2	-136.12			_	VPM1 VPM2		-80		-80			Inc
Variable 의 🔷 🔬	4	NPN2	96.59	13	0.9		VPM2 VPM3	-7	7.09		-43.05			
LSL	5	PNP3	118.68	3 14	1.9		PMS1		-50		-50			Sta
USL V	6	i IVP1	59.62	6	7.2		SNM1		14		14		Column	
		PNP4	-54.43	531	91		SPM1		9.31		-16.34		SIT1	
 Rows 		NPN3	97.32			_	NPN5 EP2		3.75 3.31		14.1 79.21		INM1	
All rows 128							ZD6		6.49		-6.2		NPN1	
Selected 0	<u>c</u>	IVP2	139.2	145	.41		PBA		4.68		33.01		NPN4	
xcluded 0	10	NPN4	95.89	115	.89		PLG		9.49		44.62		PNP2	
Hidden 0	11	SIT1	145.48	185	.72		CAP PBA 2		7.47 94.1		38 106.38		NPN3	
abeled 0		<				~	PLG 2		9.47		143.97		INM2	
	14					>	PNP5		1.78		-41.94		IVP1	
					_ ☆ _] 🔻 🔤	NPN6	4	3.89		44.89		IVP2	
				_			PNP6		0		0		<	
										Graph Refere				
							Load f	rom Limits 1	able	Save to Tall S	pec Limits T	Table		
							Save to	Column Pro	perties	Save to Wide !	Spec Limits	Table		

Bonus Features:

- Tables > Transpose
- Quality & Process > Manage Spec Limits
- Save Limits to Column Properties
- Process Screening

• Proce	ss Screeni	-											
	١	/ariability									Capabi	ility	
	Stability _		Overall	Sum			rol Chart				Out of	Out of	Latest Ou
Column	Index	Sigma	Sigma	Mean			Test1	Latest Alarm	Ppk	Cpk	Spec Count	Spec Rate	of Spe
SIT1	1.02		15.7506	149.659	1455	0.00481	7	16	0.088	0.090	581	0.3993	
INM1	1.02	3.28224	3.34868		1455	0.00412	6	3	1.649	1.682	0	0	
NPN1	1.01	2.63507	2.6621	114.793	1455	0.00275	4	3	1.300	1.313	0	0	
NPN4	1.01	2.11204	2.12848	104.199	1455	0.00412	6	39	1.301	1.311	0	0	
PNP2	1.01	79.2704	79.8259	456.616	1455	0.00412	6	16	2.475	2.492	0	0	
NPN3	1.00	2.36285	2.36476	118.135	1455	0.00206	3	4	2.934	2.936	0	0	
INM2	0.99	2.56221	2.54264	64.4074	1455	0.00000	0	3	0.080	0.079	1171	0.8048	
IVP1	0.99	4.2383	4.19633	73.7807	1455	0.00137	2	56	-0.523	-0.518	1368	0.9402	
IVP2	0.99	7.40652	7.32716	138.243	1455	0.00137	2	6	-0.044	-0.043	1034	0.7107	
													>
													• 💷 🗖

Multiple Worksheets Combining Multiple Tables

	∎ c Massive Informatio Systems	n	1		⊪ Massi Informa Syster	tion	D	E
Quality I	Metrics Report		2	Quality Metr	ics Report			
Sample ID	Run Date Method	Result	3 <mark>S</mark>	ample ID	Run Date	Method	Result	
200112	1/1/2018 Protein	9.7	4	200251	2/1/2018	Protein	14	
200112	1/1/2018 Purity	60	5	200251	2/1/2018		57	
200112	1/1/2018 Total Nitrog	¢ 95	6	200251	2/1/2018	Total Nitrog	e 75	
200112	1/1/2018 Binder	1.3	7	200251	-, -,		1.3	
200112	1/1/2018 Stabilizer	0.01	8	200251		Stabilizer	0.01	
200112	1/1/2018 pH	8	9	200251	2/1/2018	•	7.9	
200112	1/1/2018 Preservative	e 0.0024	10	200251		Preservative		
200112	1/1/2018 Buffer Salt	0.85	11	200251		Buffer Salt	0.87	
2 200113	1/1/2018 Protein	13	12	200252			10	
200113	1/1/2018 Purity	53	13	200252			61	
200113	1/1/2018 Total Nitrog	e 120	14	200252		rotal Nitrog		-
200113	1/1/2018 Binder	1.2	15	200252	2/1/2018		1.3	
200113	1/1/2018 Stabilizer	0.01	16	200252		Stabilizer	0.01	
200113 ↓ ▶ LIMS (1)	1/1/2018 pH	7.9	17	200252	2/1/2018 LIMS (2) LIMS	⊕ ∺ ⊕ : ∢	7.9	

Example: managing and monitoring laboratory sample and instrument data

Complexity: Multiple worksheets of similar data to aggregate



Multiple Worksheets Combining Multiple Tables

A		В		C D					
M		I	nfoi	ssive		В	с	D	E
a fried	lb		Sy			Massi	ve		
1			-			Informa	tion		
				Charles -					
2 Qu	uality N	Aetrics I	Peno	A Read		Syster	ns		
	anty	Run Date	(epoi			-			
3 Sample ID	200112	Kull Date	1/1/201						
5	200112		1/1/2012	Quality M	etr	ics Report			
6	200112		1/1/201		_	Run Date	Method	Result	
7	200112		1/1/201		_				
8	200112		1/1/201		251	2/1/2018		14	
9	200112		1/1/201		251	2/1/2018		57	
10	200112		1/1/201		251	2/1/2018 2/1/2018	Total Nitrog		
11	200112		1/1/201		251		Stabilizer	1.3	
12	200113		1/1/201		251	2/1/2018		7.9	
13	200113		1/1/201	200	251		рн Preservative		
14	200113		1/1/201	200	251		Buffer Salt	0.87	
15	200113		1/1/201		251	2/1/2018		10	
16	200113		1/1/201		252	2/1/2018		61	
17	200113		1/1/201		252		Total Nitrog		
< > LI	MS (1)	LIMS (2) L	IMS ¹		252	2/1/2018		1.3	
· · · · ·	wa (1)		IMS1	5 200	252	2/1/2018	Stabilizer	0.01	
			1	7 200	252	2/1/2018	pН	7.9	
					_		1		

Under wraps:

- Concatenated multiple worksheets
- Applied same settings to all
- Viewed all rows to confirm as desired

							Worksheets	
	6	D. D. (Dente			Select sheets to open	Custom setting
517	Sample ID	1/30/2018	Method	Result 0.01			Disorganized	
						^	Potato Production	
518		1/30/2018		7.8	_		Raw	
519			Preservative	0.0024			Formatted	
520		1/30/2018		0.86		- 10	Stability Data	
521	200251	-, .,		14		_	Lin 10 (4)	
522	200251			57			LIMS (1)	
523			Total Nitrogen				LIMS (2) LIMS (3)	
524	200251			1.3			LIMS (3) LIMS (4)	
525	200251	2/1/2018	Stabilizer	0.01			LIMS (5)	
526	200251	2/1/2018	pН	7.9			Evperiment	
527	200251	2/1/2018	Preservative	NaN			Spanned Layout	
528	200251	2/1/2018	Buffer Salt	0.87			Power Converter	
529	200252	2/1/2018	Protein	10			96 Well Kinetic Data	
530	200252	2/1/2018	Purity	61			Single Plate Layout	
531	200252	2/1/2018	Total Nitrogen	110			DOE Table	
532	200252	2/1/2018	-	1.3		~	Select a	11
s Shown: 2488 /	/2488							
1 Numb	eet Settings ntains colum in headers sta er of rows wi tarts on row	art on row th column h				change		
dividual Workshe Worksheet cor 3 Colum 1 Numb 4 Data st 1 Data st Concatenate wo	eet Settings - ntains colum in headers sta er of rows wi tarts on row tarts on colu orksheets and mn with worl	art on row Eth column h	eaders 🔐	Update no Jpdate no Show a	settings on any	change		

STICAL

Nested Column Labels Column Headers Turned Columns

Example: monitoring light absorbance by cell treatment

Complexity: Multi-row, nested column labels

13 Absorbance	510								
14 Read	226								
15 Start Kinetic	Runtime 8:00:0	0 (HH:MM:	SS), Interval (0:04:00, xx	k Reads				
16 Read	Abs Endpoint N	/lethod							
17 UserID	WingerdB								
18									
19				¥ /					
20			Pos	itive Conti	rol	Ne	gative Co	ntrol	
21 Time (min)	Time	Temp (C	A1	A2	A3	A4	A5	A6	4
22 0	5:12:00 PM	36.9200	0.193	0.183	0.188	0.201	0.190	0.195	C
23 4	5:16:00 PM	37.0800	0.193	0.188	0.194	0.200	0.195	0.197	C
24 8	5:20:00 PM	37.0600	0.187	0.184	0.190	0.197	0.199	0.196	C
25 12	5:24:00 PM	37.1200	0.192	0.188	0.193	0.203	0.193	0.204	C
26 16	5:28:00 PM	36.9900	0.188	0.191	0.190	0.203	0.201	0.204	C
27 20	5:32:00 PM	37 0500	0 182	0 179	0 184	0 192	0.203	0 199	0

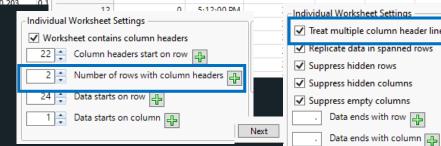


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Nested Column Labels Column Headers Turned Columns

									Data Preview —						
3 Absorbance	510														
4 Read	226									Time (min)	Time	Temp(C)	Column	Column 2	Data
5 Start Kinetic	Runtime 8:00:	00 (HH:MM	:SS), Interv	al 0:04:00, x	xx Reads										
6 Read	Abs Endpoint	Method							I	0	5:12:00 PM	36.920			0.193 ^
7 UserID	WingerdB								2	0	5:12:00 PM	36.920	Positive C	A2	0.183
8									3	0	5:12:00 PM	36.920	Positive C	A3	0.188
9		_							4	0	5:12:00 PM	36.920	Negative	A4	0.201
20			P	ositive Cont	trol	N	egative C	ontro	5	0	5:12:00 PM	36.920	Negative	A5	0.190
1 Time (min)	Time	Temp (A1	A2	A3	A I	A5	A6	6	0	5:12:00 PM	36.920	Negative	A6	0.195
2 0	5:12:00 PM	36.9200	0.100	0.100	0.100	0.201	0.190	0.1	7	0	5:12:00 PM	36.920	Treatmen	A7	0.191
23 4	5:16:00 PM	37.0800	0.193	0.188	0.194	0.200	0.195	0.1	8	0	5:12:00 PM	36.920	Ireatmen	A8	0.186
24 8	5:20:00 PM	37.0600	0.187	0.184	0.190	0.197	0.199	0.1	9	0	5:12:00 PM	36.9200) Treatmen	A9	0.199
25 12	5:24:00 PM	37.1200	0.192	0.188	0.193	0.203	0.193	0.2	10	0	5:12:00 PM) Treatmen	A10	0.194
26 <mark>16</mark>	5:28:00 PM	36.9900	0.188	0.191	0.190	0.203	0.201	0.2	11	0	5:12:00 PM) Treatmen		0.190
20	5:32:00 PM	37.0500	0 182	0 179	0 184	0 192	0.203	0 1	12	0					
								La alta d			SHOTHOM	Indiv	vidual Works	neet Settings	
								indivi	dual Worksheet S	settings) 🖬	Treat multiple	olumn hea	der lines as hierarchies
								🗸 M	/orksheet contair	ns column headers			· · ·		
Under w	/raps:							22	2 🚔 Column he	aders start on row			Replicate dat	a in spanned i	rows
						、				aders start on row	5		Suppress hide	den rows	
Multi-ro	w. nest	ed c	olum	n lab	els -	\rightarrow		2	2 📫 Number of	f rows with colum	n headers 🖳				

new columns, no stacking required!



Working with Formulas

Example: tracking relative performance of a gene of interest

	А	В	С	D	E	F	G	н			к	L		М	N	0	Р	
1																		
2			Protein	Measurement	S		(Control M	easurmen	ts 👞			No	rmalized	Measurme	ents		
3		Time (hr	Sample 1	Sample 2	Sample 3		Time (hr	Sample 1	Sample 2	Sample 3		Time	(hr)	Sample 1	Sample 2	Sample 3		
4		0.5	0.4615519255	0.4599403939	0.4987871545		0.5	4.8	5.06	4.97		0.5		=C4/H4	=D4/14	=E4/J4		-
5		1	1.0760996451	0.9576712899	1.000101		1	5.03	4.83	5.04		1		=C5/H5	=D5/I5	=E5/J5		
6		1.5	1.5987664623	1.5413743573	1.522817666		1.5	5.11	4.65	5.1		1.5		=C6/H6	=D6/16	=E6/J6		
7		2	1.9648544495	1.7618153065	2.1663168706		2	4.77	5.28	5.29		2		=C7/H7	=D7/17	=E7/J7		
8		3	3.2285862189	2.9406779614	3.3406732759		3	5.09	4.85	4.9		2		=C8/H8	=D8/17	-58/18		
9		4	4.5880385806	3.5307408593	6.0582866435		4	4.84	5.03	5.75		4		=C9/H9	=D9/19	=E9/J9		1
10		6	6.118013004	6.6341571139	5.2192764264		6	4.95	5.23	5.01		6		=C10/H10	=D10/I10	=E10/J10		
11		8	8.5447517565	7.7514360622	9.8972865829		8	5.27	4.5	4.58		8		=C11/H11	=D11/I11	=E11/J11		
12		12	10.07815202	10.915025821	9.9183302283		12	5.2	4.99	4.98		12		=C12/H12	=D12/I12	=E12/312		
13		18	16.398164152	20.577075751	10.007935598		18	4.9	4.93	5.3		18		=C13/H13	=D13/I13	=E13/J13		
14		24	21.434937121	23.695461138	17.723130184		24	5.19	4.66	4.58		24		=C14/H14	=D14/I14	=E14/J14		
15		05.00					8.00						6.00	1				
16		25.00	Sample	1		/							5.00	Sa	mple 1			
17		20.00 -	Sample				6.00		\sim		ample 1		4.00	Sa	mple 2			
18		15.00 -	Sample				4.00						3.00		mple 3			
19										S	ample 2		2.00			~		
20		10.00 -					2.00 -			S	ample 3							
21		5.00 -			<u>_</u>								1.00					
22		0.00 -						2 3	4 5 6	789	10 11		0.00	+				
23			1 2 3	4 5 6	7 8 9	10 11	ſ'	. 2 3		/ 0 5	, 10 11			1 2	345	678	9 10 11	
24							4											

Complexity:

- Multiple rows for column header
- Multiple tables with source data

• Formulas



Working with Formulas

								_															
			A B	(C	D	E	Ĩ	F	G	н	- I	J	K	L	M	N	0					
		1																					
		2				asurements						Measurm				ormalized							
		3	Time	(hr Sample		ample 2	Sample 3		Т				e 2 Sample	3				e 2 Sample 3	_				
		4	0.5	0.46155	519255 0.	4599403939	0.498787	1545	0).5	4.8	5.06	4.97		0.5	=C4/H4	=D4/I4	=E4/J4					
		5	1	1.07609	996451 0.	9576712899	1.000101		1	L	5.03	4.83	5.04		1	=C5/H5	=D5/I5	=E5/J5					
- Data Preview		6	4.5	1 50076	64633 1	E #4 37 #3E 73	1 5000176		4		511	4.65	5.1		1.5	=C6/H6	=D6/16	=E6/J6					
					1						7	5.28	5.29		2	=C7/H7	=D7/17	=E7/J7					
	Protein	Protein	Protein	Protein	Control	Control	Control	Control			Э	4.89	4.9		3	=C8/H8	=D8/17	/ =E8/J8					
	Measure	Measure	Measure				Measurm	Measurm	n		4	Untitled 174 -	JMP Pro [2]					– 🗆 ×		5.11	4.65	5.10	
	ments-	ments-	ments-	ments-	ents-	ents-	ents-	ents-					s Rows Cols D				Window He	lp		4.77 5.09	5.28 4.89	5.29 4.90	
	Time (hr)	Sample 1	Sample 2		-		Sample 2		_			S 🔁 🚰 🔜	🔏 🗈 🕰 😒 (ð 📲 🖶 🛅	🌐 🖿 🖄 ≽ 🎚	/ <u>-</u>				5.09	4.89	4.90	
	1 0.5	0.46	0.4	6 0.50	0.	5 4.80	5.06	4.9	7			Untitled 174	D 0 -							4.95	5.23	5.01	
	2 1	1.08	0.9	6 1.00)	1 5.03	4.83	5.04	4			Source		🗏 Ti	ne Label			atio		5.27	4.50	4.58	
	3 1.5	1.60	1.5	4 1.52	1.	5 5.11	4.65	5.10	0					1	0.5 Sample 1	0.46		Column Info		5.20	4.99	4.98	
						2 4.77	5.28	5.29						2	0.5 Sample 2 0.5 Sample 3	0.46	5.06	Standardize Attributes		4.90	4.93 4.66	5.30 4.58	
· · · · · · · · · · · · · · · · · · ·	4 2											Columns (5/2)		4	1 Sample 1	1.08	5.03	Column Properties		5.19	4.00	4.08	
	5 3		2.9			3 5.09	4.89	4.90						5	1 Sample 2	0.96	4.83	Formula					
	6 4	4.59	3.5	3 6.06	i	4 4.84	5.03	5.75	5			Time Label		6	1 Sample 3	1.00		Recode					
		e:				6 Individual \	Worksheet Se	ttinas —			Prev	view Pane Re	fresh		1.5 Sample 1 1.5 Sample 2	1.60	5.11	New Formula Column	•	Transform	•		
Individual	Worksheet	Settings –				•		-					ngs on any cha		1.5 Sample 2 1.5 Sample 3	1.54		Insert Columns		Combine	•	Sum	
Works	heet contai	ns column	headers		1	2	nultiple colur			nierarchie		·	igs on any cha	inge	2 Sample 1	1.96	4.77	Delete Columns		Aggregate	•	Difference	
						🔄 🗹 Keplica	ite data in sp	anned rows	5		Upo	late now			2 Sample 2	1.76	5.28	Label/Unlabel		Distributional	+	Difference (rever:	
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					2	4	ss hidden co					Show all row	s		3 Sample 2	2.94	4.89	Sort	•	Row	•	Ratio	
2 📫	Number o	f rows with	n column	headers _	<u>.</u>						AAd	vanced Opti	ons										
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3 🌲	Data starts	s on row 🔓	£-			. Da	ata ends with	row 🕂					1										
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1 📫	Data starts	s on colum	n 🖧				ata ends with		7				aders in spani	ied rows						4			
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		_										Limit colum	in type detecti	on							D DIS	SCOVERY	

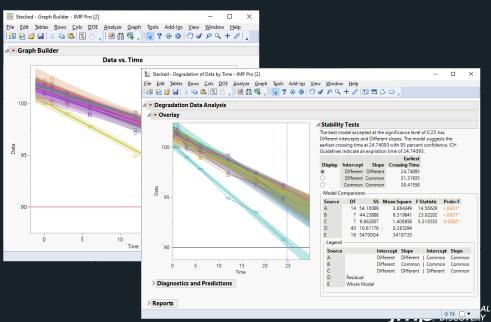
Workflow Automation

Source Scripts and Enhanced Log

Example: assessing drug product expiry

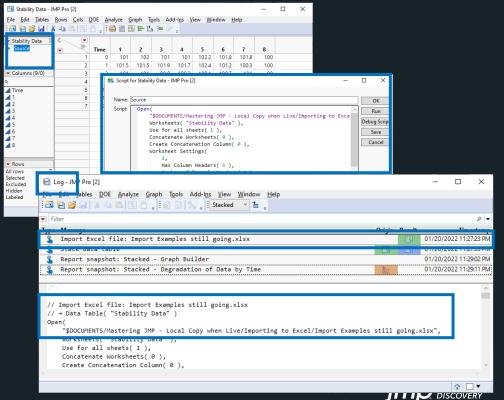
	Α	В	С	D				н		
1										
2										
3		Table 1								
4			Time poin	ts						
5		Lot ID	0	1	3	6	12	18	24	
6		1	101	101.5	101	99.5	99.1	96.9	94.7	
7		2	102	101.5	101	99.8	98.5	97.4	96.2	
8		3	101	101.9	99.8	99.5	97.4	96.2	94.9	
9		4	101	101.7	100.2	98.9	97.2	96.5	95.8	
10		5	102.2	102.4	100.1	100.2	99.2	96.95	94.7	
11		6	101.8	101.2	100.7	99.9	98.7	97.4	96.2	
12		7	101.8	100.3	101	99	98.5	97	95.5	
13		8	101.7	100	99	97.8	94.9	93.5	90.8	
14										
15										
16										
17		Table 2: D	ata is split	by lot ID						
18						Lot	ID			
19		Time	1	2	3	4	5	6	7	8
20		0	101	102	101	101	102.2	101.8	101.8	100
21		1	101.5	101.5	101.9	101.7	102.4	101.2	100.3	100
22		3	101	101	99.8	100.2	100.1	100.7	101	99
23		6	99.5	99.8	99.5	98.9	100.2	99.9	99	97.8
24		12	99.1	98.5	97.4	97.2	99.2	98.7	98.5	94.9
25		18	96.9	97.4	96.2	96.5	96.95	97.4	97	93.5
26		24	94.7	96.2	94.9	95.8	94.7	96.2	95.5	90.8
27										
20										

We got the import, no problem! Complexity: Workflow automation



Workflow Automation Source Scripts and Enhanced Log

	А	В		с	D		εI	F		G	н			🔛 Stability Data - Jł	
14														Eile Edit Tables	
15														Stability Data	
16														 Source 	
17		Table	2: Data	is split	by lot I	D									
18						-		1	ot ID					Columns (9/0)	
19		Time		1		2	3		4	5	6	7	8	م Time	
20			0	101	1	02	101	10)1	102.2	101.8	101.8	100	1	
21			1	101.5	101		101.9	101		102.4	101.2	100.3	100	3	
22			3	101.5		01	99.8	101		102.4	101.2	100.5	99	🔺 5	
23			6	99.5		9.8	99.5	98	_	100.1	99.9	99	97.8	▲ 6 ▲ 7	
24			12	99.1		3.5	97.4	97		99.2	98.7	98.5	94.9	4 8	
	ta Preview —		12	55.1			57.4		.2	55.2	Worksheet		54.5	Rows	
	arreview.										Wondheet	-	Custom	All rows Selected	
					3		5	-	7		Select she	ets to open		Excluded	Log - JNP P
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-	2	1	101.5	101.5	101.9	101.7	102.4	101.2	100.3	10	Potato Pro Raw	duction			
_	3	3	101	101	99.8	100.2	100.1	100.7	101	9	Formatted			F	ilter
	А	6	00 5	00.9	00 5	0.9.0	100.2	000	00	07	Stability D				Import
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	20	0 🛟 D	ata starts	s on row	÷										' → Data 1
		1 📥 D	ata start	s on colu	mn 🕰									Ор	en(
		•			50										\$DOCU
		ncatena	te works	heets an	d try to m	natch co	lumns								Use fo
					ksheet na			tenating							Concate Create
			workshee											 C 	c, eace
					Restore D)efault S	ettings		Bac	rk 🗌	Next				
		_	_		nestore e	verault 5	cungs		Dat	CIN .	THEAT				



Excel Import Wizard Wrapping Up



Easily work with the data as it comes!

Have you got:

- Data anywhere in the worksheet, visible or hidden?
- Multiple worksheets you need?
- Merged cells?
- Multiple row or hierarchical column headers?

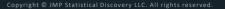




But Wait, There's More!

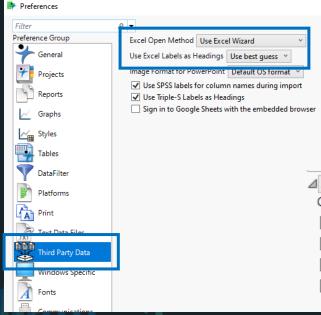
Other JMP Import Wizards

PDF Import Wizard		×						Databa	ise
Page 1 v Zoom Undo 5 C Redo	Ignore all tables Ocncatenate tables with matching column	LIMS - Join - Access - JM Query Name: LIMS - Jo		Source: LIMS - LIfe S	Science			- 0	x tart.Over] TXT/CSV
Massive Information Systems	Jsers\chstop\Documents\Demo - Intro to JMP\Intro to Include hidden files Include subfolders	Tables UMS - Outcome (t1) UMS - Process (t2) Change Change · Available	Included Columns Variable Name 11.Sample ID 11.Sample ID	JMP Name Sample ID Run Date Yield pH	Format Best m/d/y hms Best Best Best	Aggregation Aggregation None None None None None None None	1 / C Thur		JMP160-P005_3_tb.txt - Notepad File Edit Format View Help
Sample ID Run Date Method Result 200112 1/1/2018 Yield Inst 200112 1/1/2018 Yield Select 200112 1/1/2018 Jield Files 200112 1/1/2018 Jield Files 200113 1/1/2018 Jield Instrum 200114 1/1/2018 Jield Instrum 200114 1/1/2018 Jield Instrum 200114	ect files by name or extension	Columns Fourch Fourch Fourch Fourch Fourch Fourch Fource F	10/0 Cek ♥ ♥ 308/0 ♥ Sam 1 2 2 3 3 4 4 2	Protein , gen Total Nitrogen , SNV , SNV 2	ate Yield 12:00 555 12:00 49 12:00 50 12:00 52	pH Buffer Salt 5 7.9 0.87 9 7.8 0.87 0 7.8 0.87 2 7.9 0.89	5511111 551111 551111 551111 551111 551111 551111 5511111 55111111		35555 3557 3577
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Homework

JMP Preferences Under File or Ctrl-K



Import Wizard Advanced Options

- Advanced Options Column Name Separator String
 - Multiple series stack
 - Replicate headers in spanned rows
 - Import cell colors
 - Limit column type detection

Register for Next Week's Session with Olivia!

>BASIC

Preparing Your Data for Analysis

LIVE WEBINAR: January 28, 2022| 2:00 - 2:45 p.m. ET PRESENTER : Olivia Lippincott

Learn when and how to reorganize data tables to meet your analysis needs. Understand and deploy the column and row settings and attributes used by JMP to optimize information created by and viewed in graphical reports. See a 30-minute demo and stay on if you want to join 15 minutes of Topic Discussion and Q&A.



Patron Saint of Excel Import Wizard







Thank You for Attending!



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