Importing, Consolidating, & Maximizing the Value of Excel Data

Christian Stopp

Systems Engineer

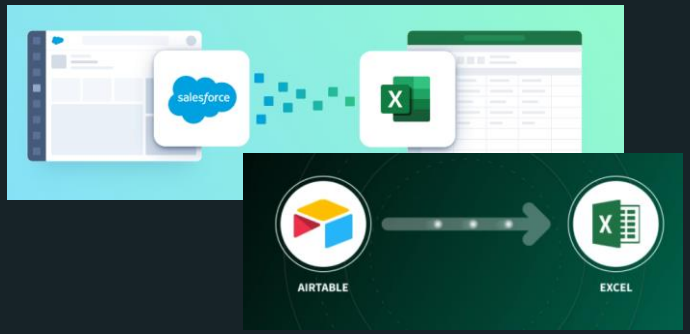
Copyright © JMP Statistical Discovery LLC. All rights reserved.

How Did You Get Your Excel?

Manual Entry

Equipment Export

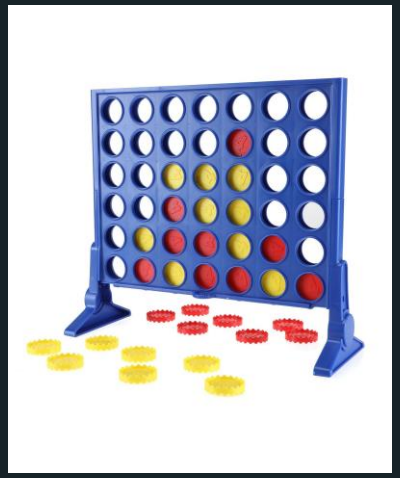
Database Query



Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

How's Your Data Structure?



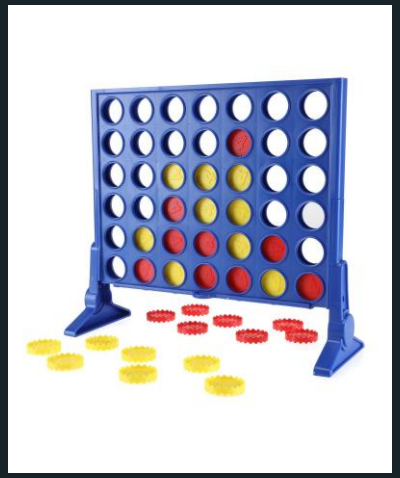
Simple
Data
Structure

Complex
Data
Structure

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

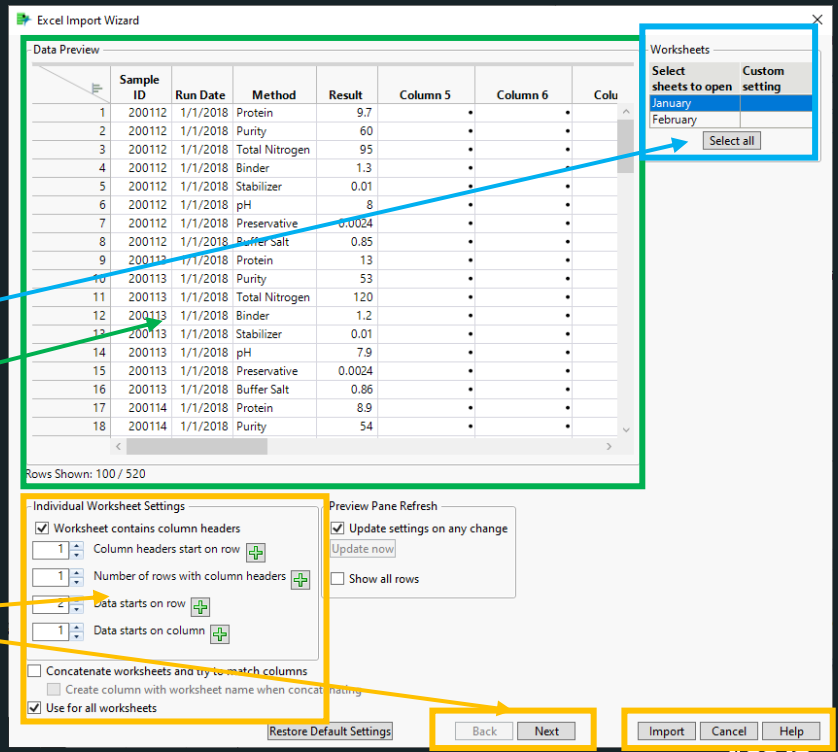
Excel Import Wizard

We'll use the Wizard to help us:

Select the worksheets with the desired data

Use the Data Preview to guide our selection

Modify settings to line up the data in our sights

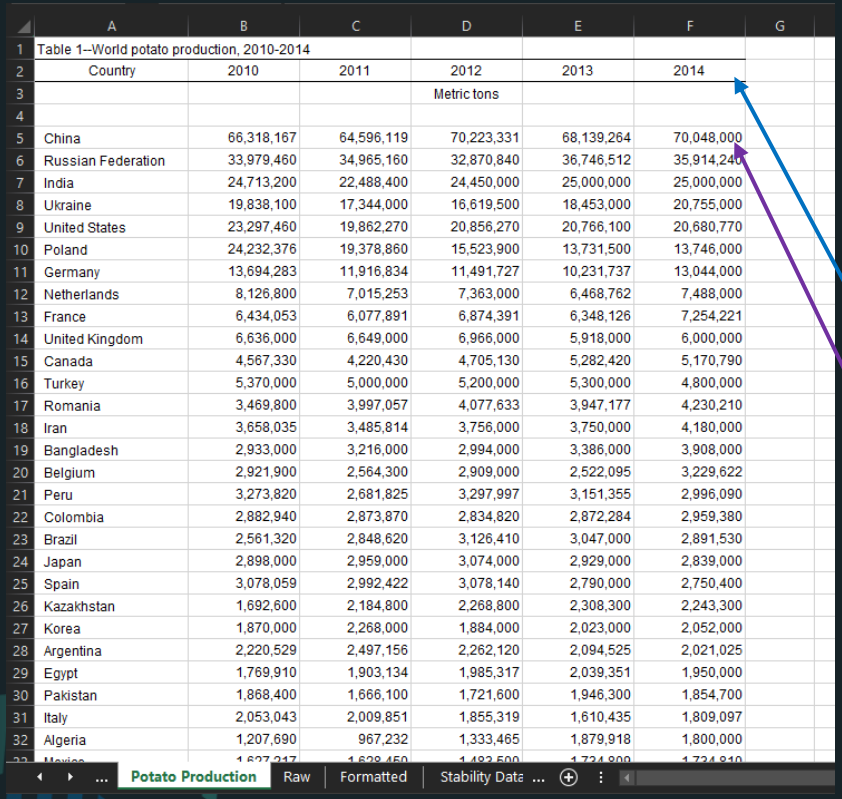


Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

Excel Import Wizard - Example

Column and Row Starts



	A	B	C	D	E	F	G
1	Table 1--World potato production, 2010-2014						
2	Country	2010	2011	2012	2013	2014	
3				Metric tons			
4							
5	China	66,318,167	64,596,119	70,223,331	68,139,264	70,048,000	
6	Russian Federation	33,979,460	34,965,160	32,870,840	36,746,512	35,914,240	
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	
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	
22	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	

Potato Production | Raw | Formatted | Stability Data

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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

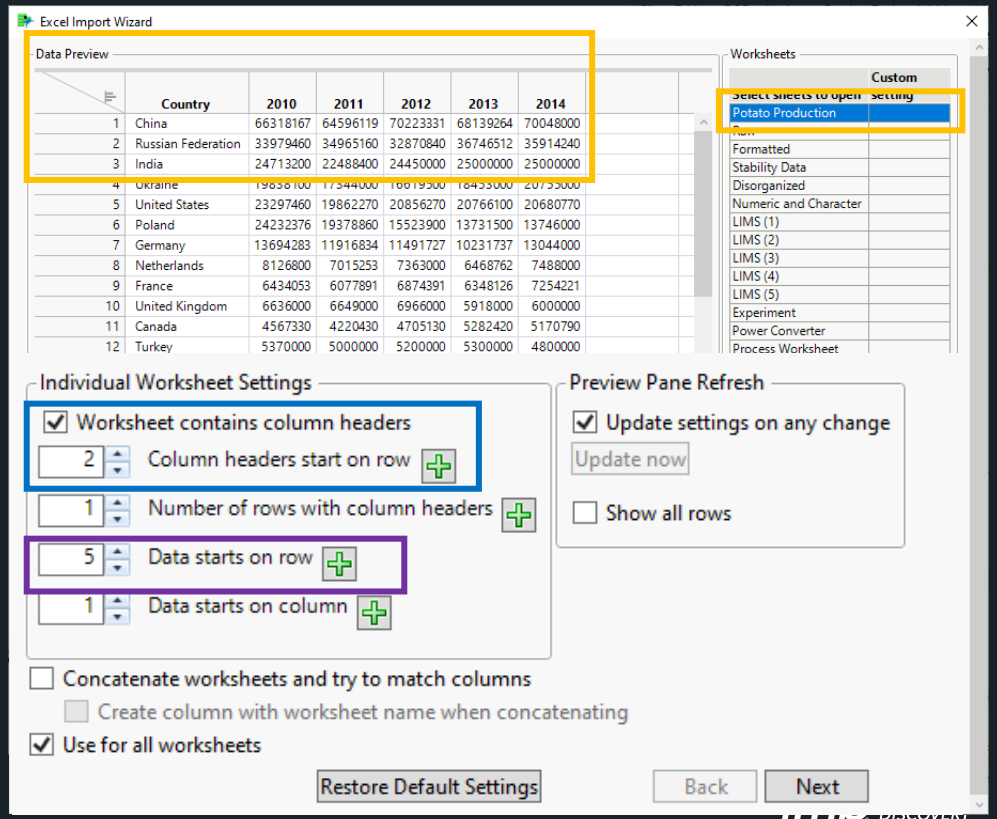
Excel Import Wizard - Example

Column and Row Starts

	A	B	C	D	E	F
1	Table 1. World potato production, 2009-2004					
2	Country	2010	2011	2012	2013	2014
3				Metric tons		
4						
5	China	66,318,167	64,596,119	70,223,331	68,139,264	70,048,000
6	Russian Federation	33,979,460	34,965,160	32,870,840	36,746,512	35,914,240
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
16	Turkey	5,370,000	5,000,000	5,200,000	5,300,000	4,800,000

Easily managed!

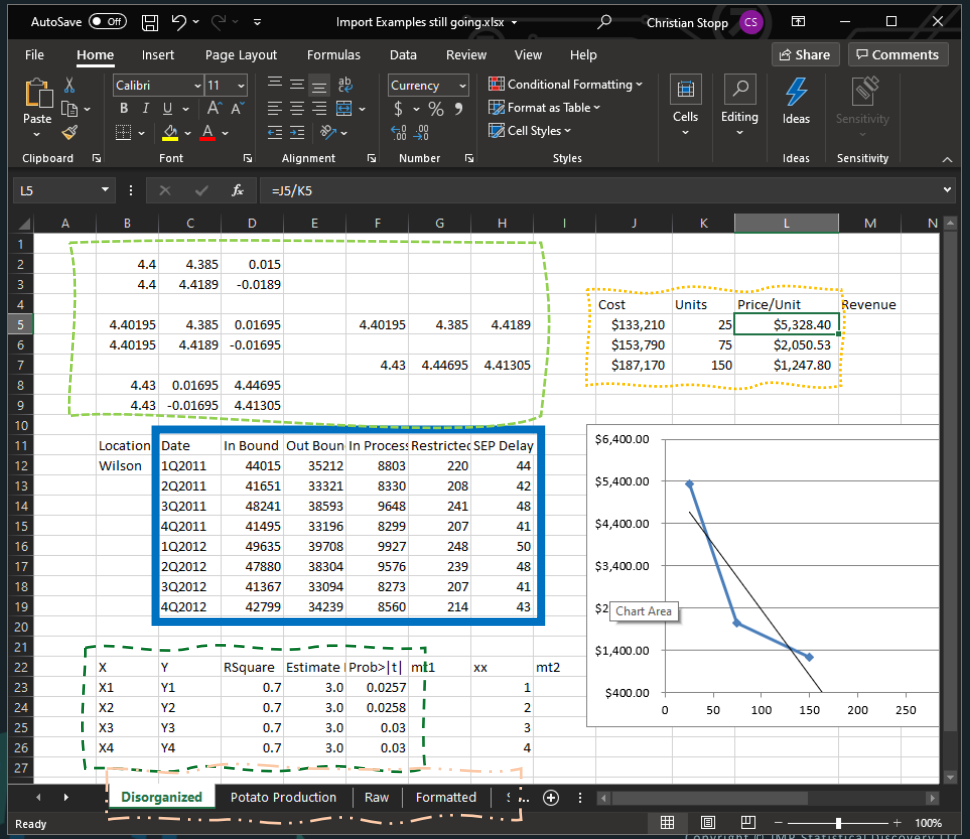
- Column headers start after 1st Excel row
- Rows of data separated from column headers



Copyright © JMP Statistical Discovery LLC. All rights reserved.

Why Do We Need a Wizard Anyway?

Excel



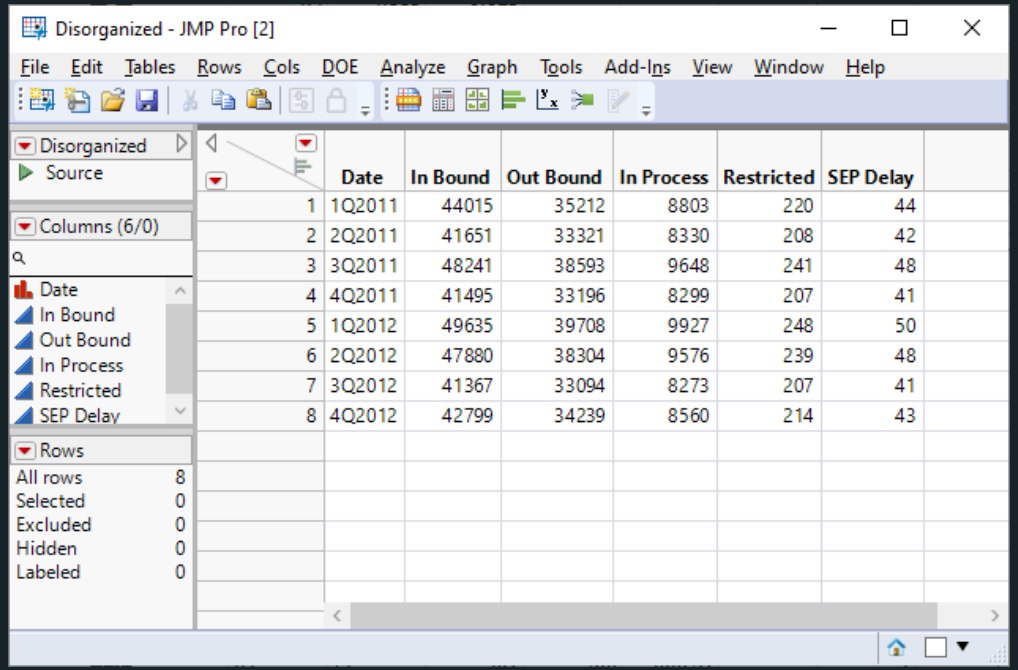
- Cell-based – properties, formulas, etc. can differ between any pair of cells
- Can contain multiple worksheets
- Worksheet can contain multiple tables…or random content…anywhere
- Tables can have multiple rows of column headers

Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

Why Do We Need a Wizard Anyway?

JMP



	Date	In Bound	Out Bound	In Process	Restricted	SEP Delay
1	1Q2011	44015	35212	8803	220	44
2	2Q2011	41651	33321	8330	208	42
3	3Q2011	48241	38593	9648	241	48
4	4Q2011	41495	33196	8299	207	41
5	1Q2012	49635	39708	9927	248	50
6	2Q2012	47880	38304	9576	239	48
7	3Q2012	41367	33094	8273	207	41
8	4Q2012	42799	34239	8560	214	43

- 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

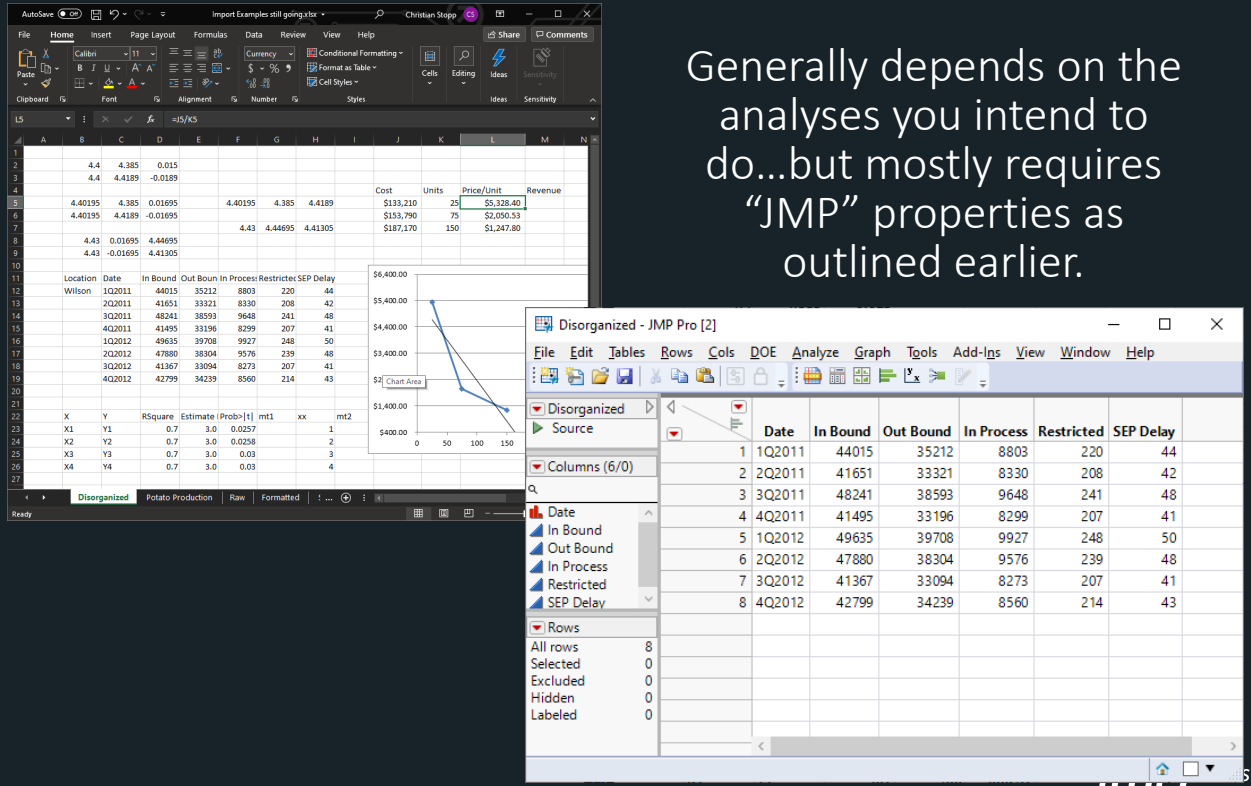
Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

Excel → 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.”



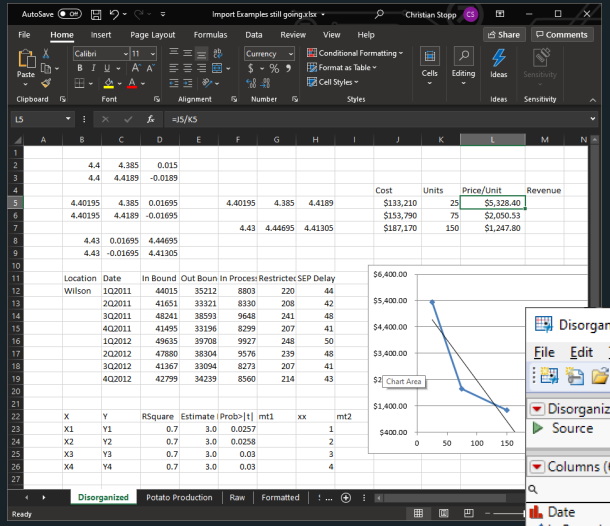
Generally depends on the analyses you intend to do…but mostly requires “JMP” properties as outlined earlier.

Copyright © JMP Statistical Discovery LLC. All rights reserved.

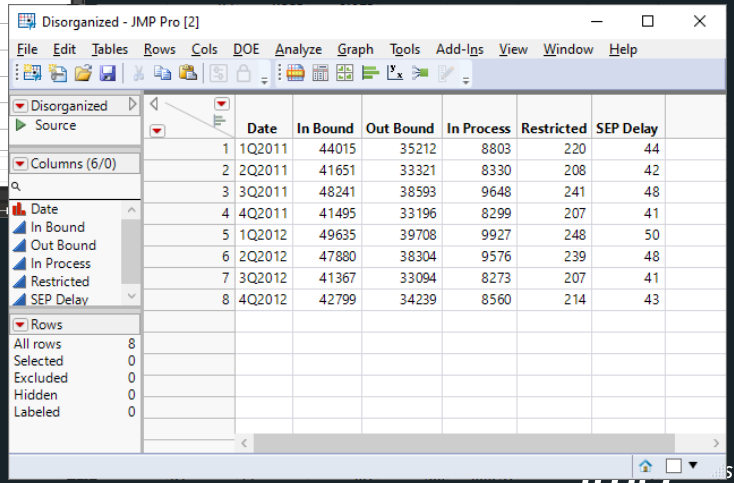
Excel → JMP

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.”



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



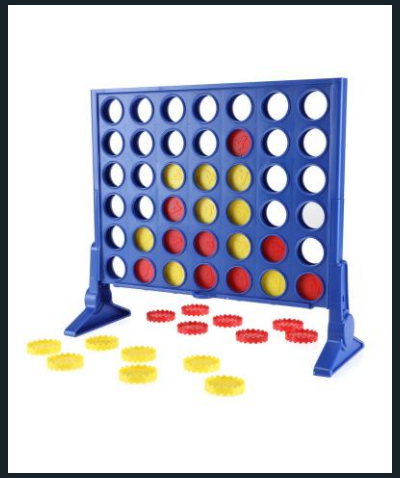
What can I do in the Excel Import Wizard to achieve this?

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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

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

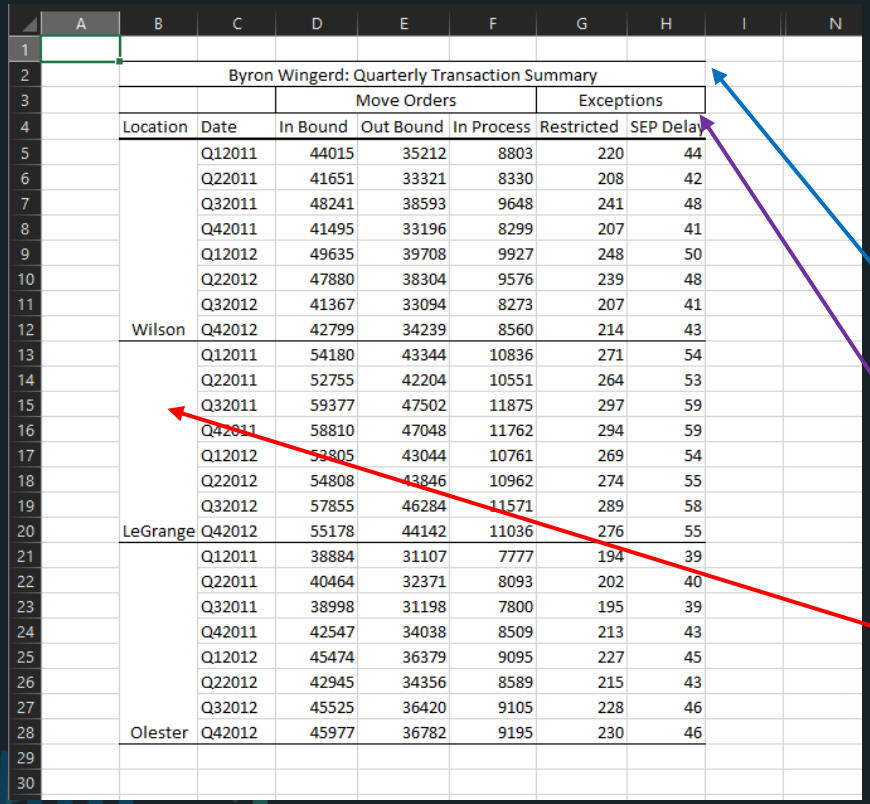
Complex Import

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

What's Behind that Next Button?

Managing Merged Cells and…



	A	B	C	D	E	F	G	H	I	N
1										
2		Byron Wingerd: Quarterly Transaction Summary								
3				Move Orders			Exceptions			
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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

What's Behind that Next Button?

Managing Merged Cells and…

	Location	Date	In Bound	Out Bound	In Process	Restricted	SEP Delay
Byron Wingerd: Quarterly Transaction Summary			Move Orders			Exceptions	
	Wilson	Q12011	44015	35212	8803	220	44
		Q22011	41651	33321	8330	208	42
		Q32011	48241	38593	9648	241	48
		Q42011	41495	33196	8299	207	41
		Q12012	49635	39708	9927	248	50
		Q22012	47880	38304	9576	239	48
		Q32012	41367	33094	8273	207	41
		Q42012	42799	34239	8560	214	43
	LeGrange	Q12011	54180	43344	10836	271	54
		Q22011	52755	42204	10551	264	53
		Q32011	59377	47502	11875	297	59
		Q42011	58810	47048	11762	294	59
		Q12012	53805	43044	10761	269	54
		Q22012	54808	43846	10962	274	55
		Q32012	57855	46284	11571	289	58
		Q42012	55178	44142	11036	276	55

Data Preview

	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

- [x] Worksheet contains column headers
- 3 Column headers start on row
- 1 Number of rows with column headers
- 4 Data starts on row
- 1 Data starts on column
- [ ] Concatenate worksheets and try to match columns
- [ ] Create column with worksheet name when concatenating
- [x] Use for all worksheets

Preview Pane Refresh

- [x] Update settings on any change
- Update now
- [ ] Show all rows

Next

Tackled!

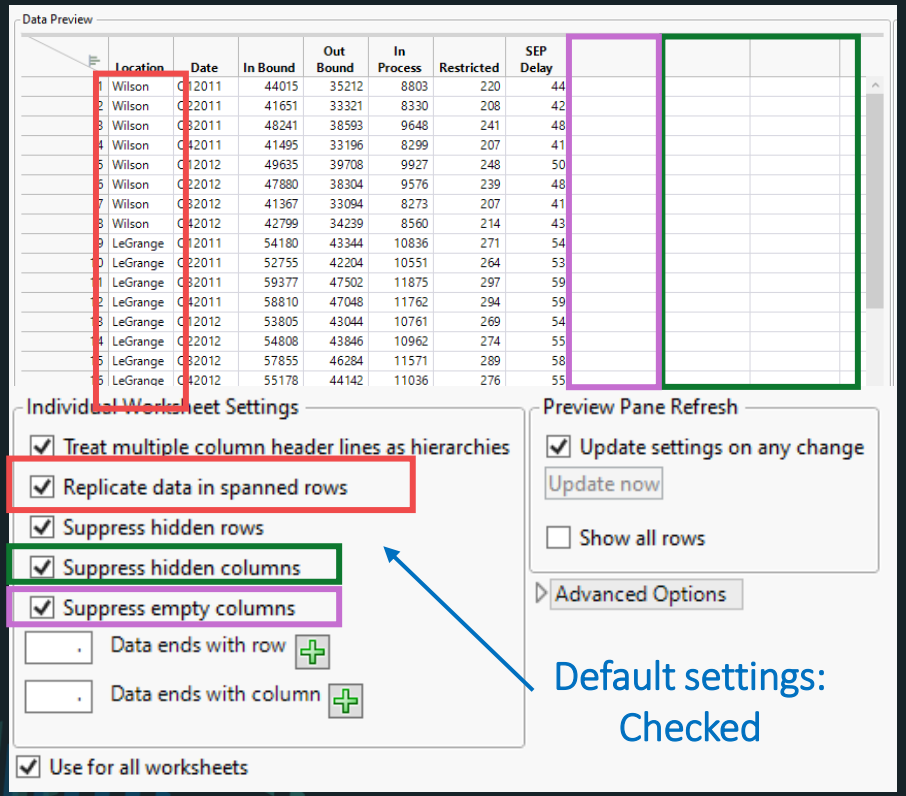
- Multiple rows for column headers?
- Merged cells

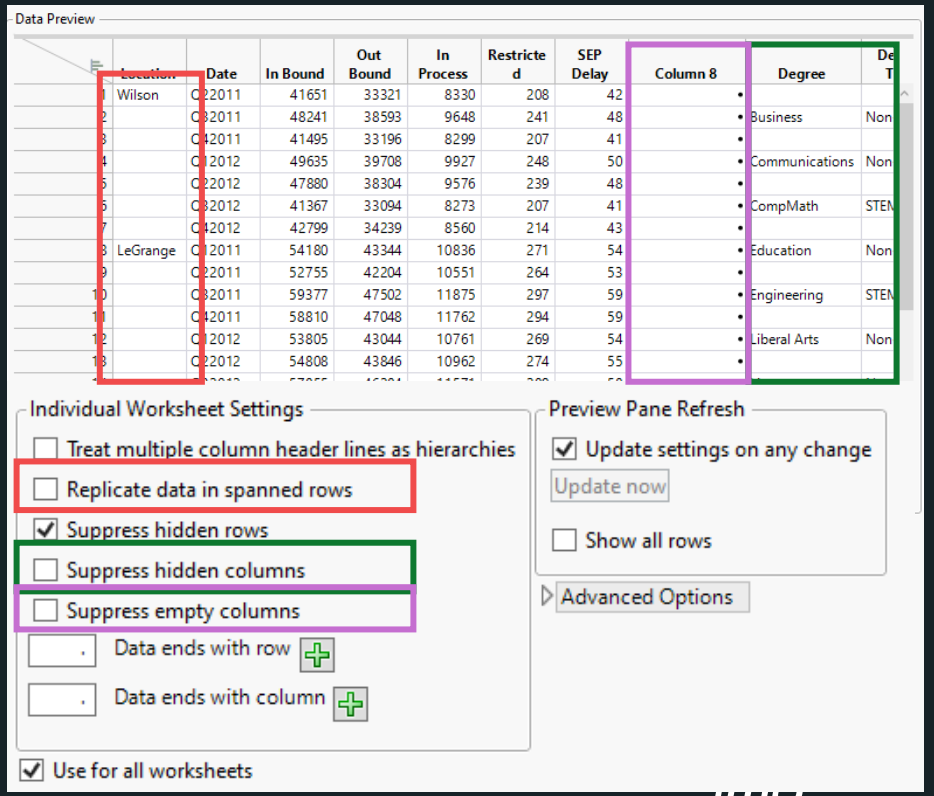
Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

What's Behind that Next Button?

Managing Merged Cells & Sneaky Data





Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP DISCOVERY

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	H	I	J	K	L	M	N	O	P
1		Test						Test 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	PNP3	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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

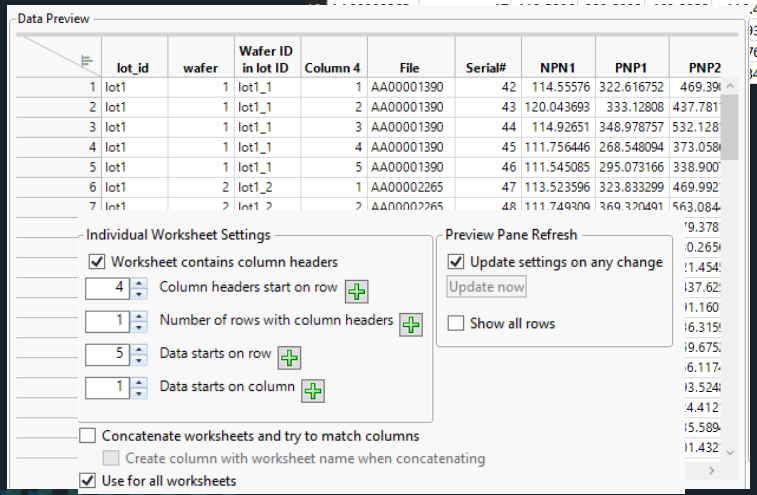
Multiple Tables in One Worksheet

Two Tables, One Column Header Row

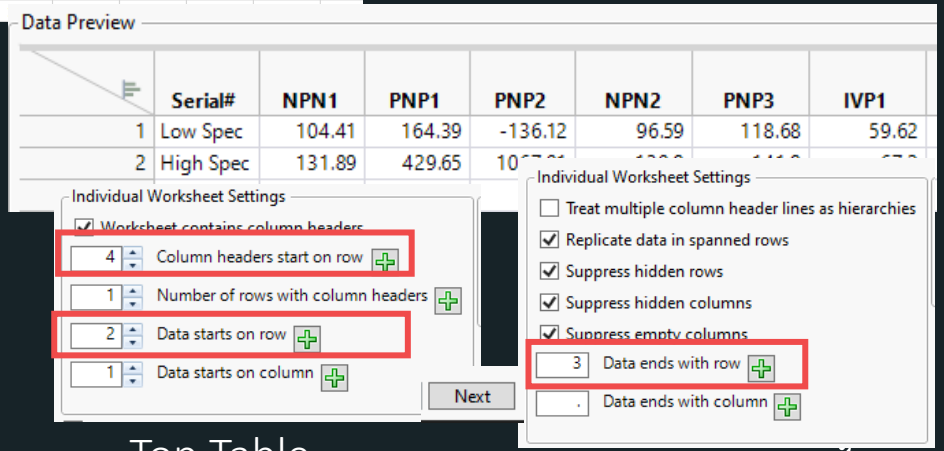
	E	F	G	H	I	J	K	L	M	N	O	P
1		Test	Test Group 1									
2		Low Spec	104.41	164.39	-136.12	96.59	118.68	59.62	-54.43	97.32	139.2	95
3		High Spec	131.89	429.65	1067.01	130.9	141.9	67.2	531.91	144.29	145.41	115
4	File	Serial#	NPN1	PNP1	PNP2	NPN2	PNP3	IVP1	PNP4	NPN3	IVP2	NPN4
5	AA00001390	42	114.5558	322.6168	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

Case closed:

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



Bottom Table



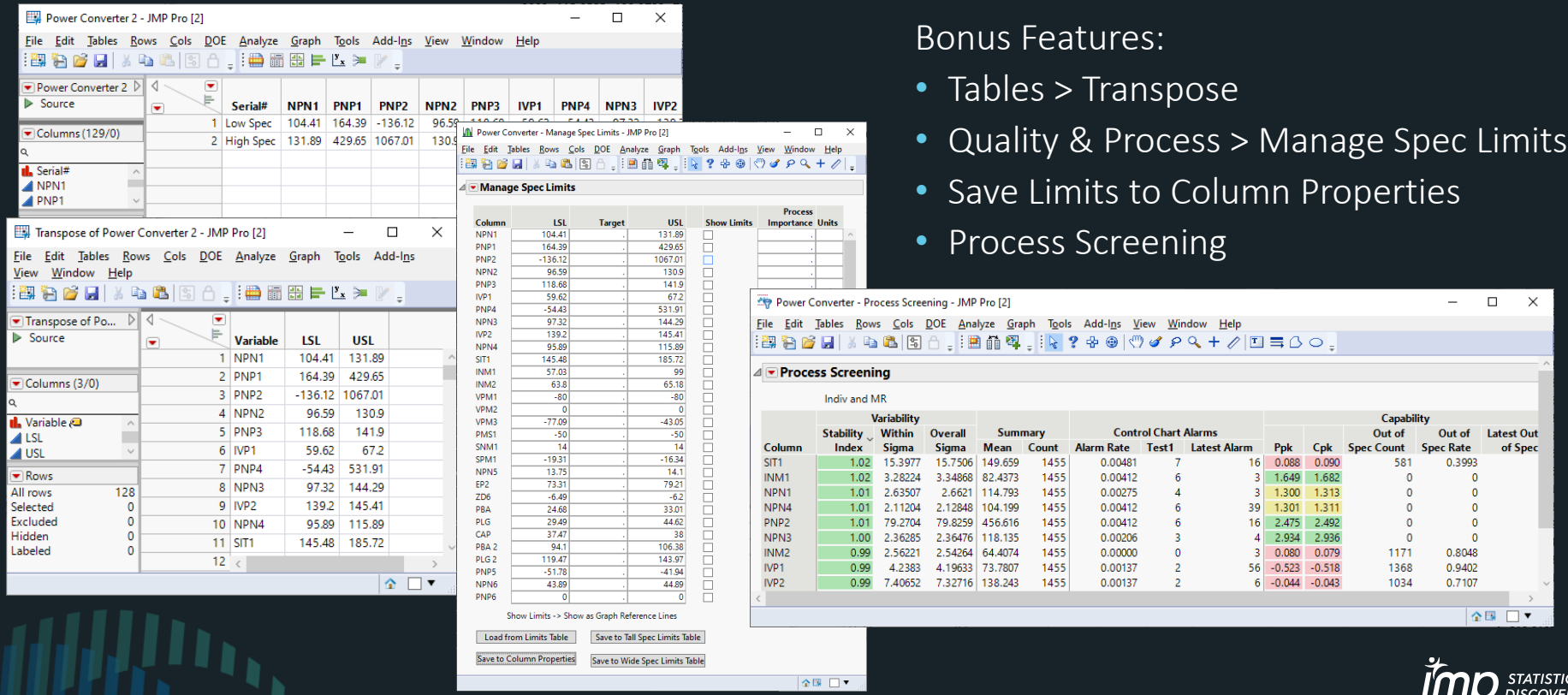
Top Table

Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

Multiple Tables in One Worksheet

Bonus!



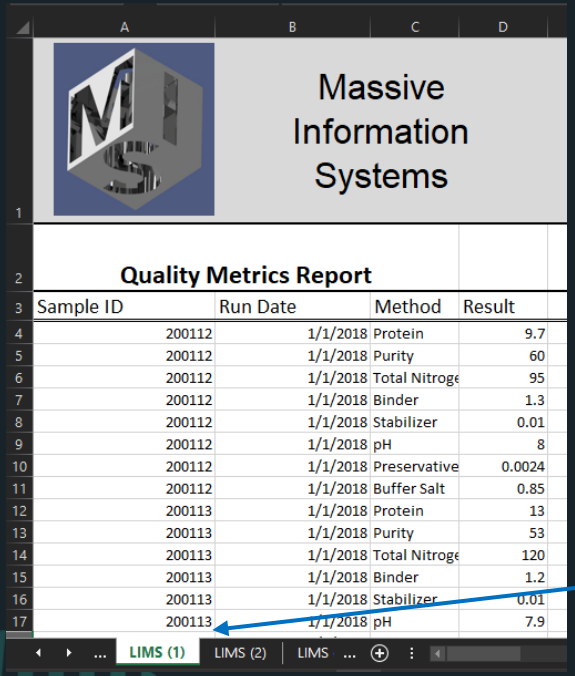
Bonus Features:

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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

Multiple Worksheets

Combining Multiple Tables

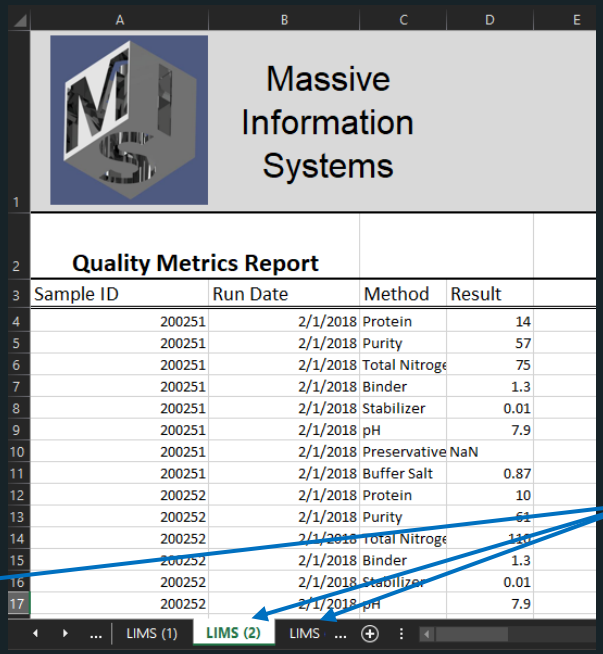


Massive Information Systems

Quality Metrics Report

Sample ID	Run Date	Method	Result
200112	1/1/2018	Protein	9.7
200112	1/1/2018	Purity	60
200112	1/1/2018	Total Nitroge	95
200112	1/1/2018	Binder	1.3
200112	1/1/2018	Stabilizer	0.01
200112	1/1/2018	pH	8
200112	1/1/2018	Preservative	0.0024
200112	1/1/2018	Buffer Salt	0.85
200113	1/1/2018	Protein	13
200113	1/1/2018	Purity	53
200113	1/1/2018	Total Nitroge	120
200113	1/1/2018	Binder	1.2
200113	1/1/2018	Stabilizer	0.01
200113	1/1/2018	pH	7.9

LIMS (1) | LIMS (2) | LIMS



Massive Information Systems

Quality Metrics Report

Sample ID	Run Date	Method	Result
200251	2/1/2018	Protein	14
200251	2/1/2018	Purity	57
200251	2/1/2018	Total Nitroge	75
200251	2/1/2018	Binder	1.3
200251	2/1/2018	Stabilizer	0.01
200251	2/1/2018	pH	7.9
200251	2/1/2018	Preservative	NaN
200251	2/1/2018	Buffer Salt	0.87
200252	2/1/2018	Protein	10
200252	2/1/2018	Purity	61
200252	2/1/2018	Total Nitroge	130
200252	2/1/2018	Binder	1.3
200252	2/1/2018	Stabilizer	0.01
200252	2/1/2018	pH	7.9

LIMS (1) | LIMS (2) | LIMS

Example: managing and monitoring laboratory sample and instrument data

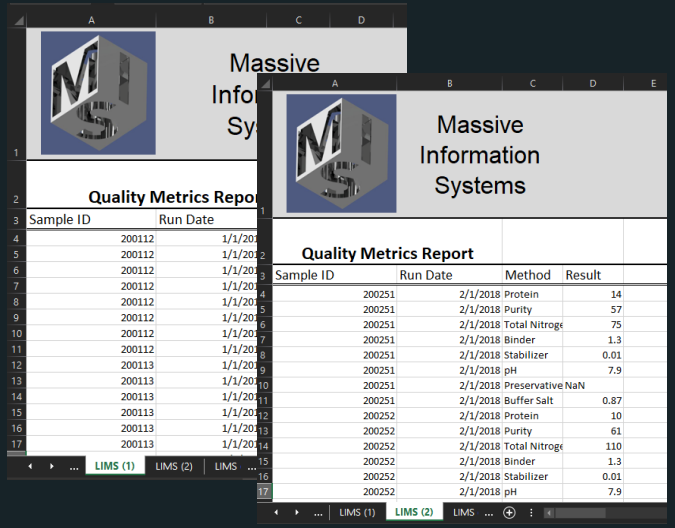
Complexity:
Multiple worksheets of similar data to aggregate

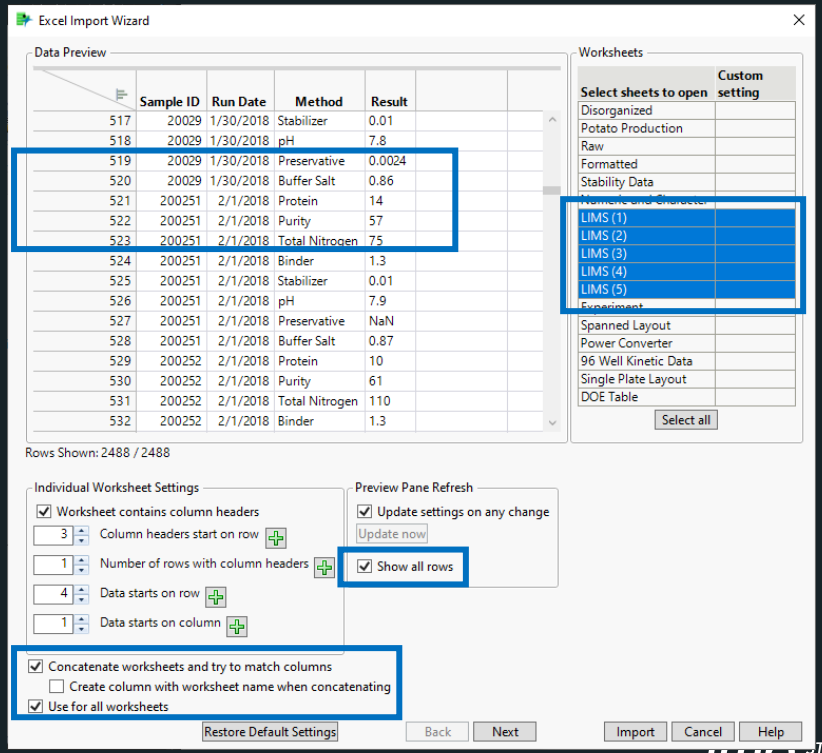
Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

Multiple Worksheets

Combining Multiple Tables





Under wraps:

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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

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 8:00:00 (HH:MM:SS), Interval 0:04:00, xxx Reads								
16	Read	Abs Endpoint Method								
17	UserID	WingerdB								
18										
19										
20				Positive Control			Negative Control			
21	Time (min)	Time	Temp (C)	A1	A2	A3	A4	A5	A6	A
22	0	5:12:00 PM	36.9200	0.193	0.183	0.188	0.201	0.190	0.195	0
23	4	5:16:00 PM	37.0800	0.193	0.188	0.194	0.200	0.195	0.197	0
24	8	5:20:00 PM	37.0600	0.187	0.184	0.190	0.197	0.199	0.196	0
25	12	5:24:00 PM	37.1200	0.192	0.188	0.193	0.203	0.193	0.204	0
26	16	5:28:00 PM	36.9900	0.188	0.191	0.190	0.203	0.201	0.204	0
27	20	5:32:00 PM	37.0500	0.182	0.179	0.184	0.192	0.203	0.199	0

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

Nested Column Labels

Column Headers Turned Columns

13	Absorbance	510
14	Read	226
15	Start Kinetic	Runtime 8:00:00 (HH:MM:SS), Interval 0:04:00, xxx Reads
16	Read	Abs Endpoint Method
17	UserID	WingerdB
18		
19		
20		

21	Time (min)	Time	Temp (C)	Positive Control A1	A2	A3	Negative Control A4	A5	A6
22	0	5:12:00 PM	36.9200	0.193	0.188	0.188	0.201	0.190	0.1
23	4	5:16:00 PM	37.0800	0.193	0.188	0.194	0.200	0.195	0.1
24	8	5:20:00 PM	37.0600	0.187	0.184	0.190	0.197	0.199	0.1
25	12	5:24:00 PM	37.1200	0.192	0.188	0.193	0.203	0.193	0.2
26	16	5:28:00 PM	36.9900	0.188	0.191	0.190	0.203	0.201	0.2
27	20	5:32:00 PM	37.0500	0.182	0.179	0.184	0.192	0.203	0.1

Data Preview

	Time (min)	Time	Temp (C)	Column	Column 2	Data
1	0	5:12:00 PM	36.9200	Positive C...	A1	0.193
2	0	5:12:00 PM	36.9200	Positive C...	A2	0.183
3	0	5:12:00 PM	36.9200	Positive C...	A3	0.188
4	0	5:12:00 PM	36.9200	Negative ...	A4	0.201
5	0	5:12:00 PM	36.9200	Negative ...	A5	0.190
6	0	5:12:00 PM	36.9200	Negative ...	A6	0.195
7	0	5:12:00 PM	36.9200	Treatmen...	A7	0.191
8	0	5:12:00 PM	36.9200	Treatmen...	A8	0.186
9	0	5:12:00 PM	36.9200	Treatmen...	A9	0.199
10	0	5:12:00 PM	36.9200	Treatmen...	A10	0.194
11	0	5:12:00 PM	36.9200	Treatmen...	A11	0.190

Individual Worksheet Settings

- Worksheet contains column headers
- 22 Column headers start on row
- 2 Number of rows with column headers
- 24 Data starts on row
- 1 Data starts on column

Next

Individual Worksheet Settings

- Treat multiple column header lines as hierarchies
- Replicate data in spanned rows
- Suppress hidden rows
- Suppress hidden columns
- Suppress empty columns
- . Data ends with row
- . Data ends with column

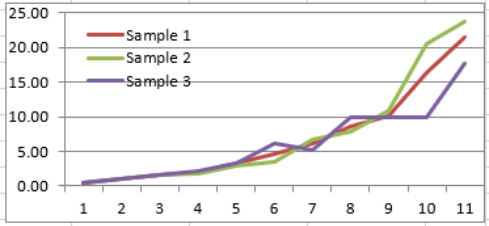
Under wraps:
Multi-row, nested column labels → new columns, no stacking required!

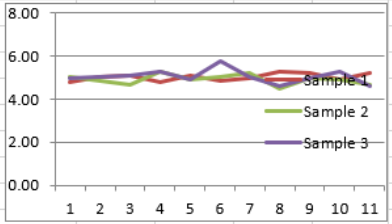
Copyright © JMP Statistical Discovery LLC. All rights reserved.

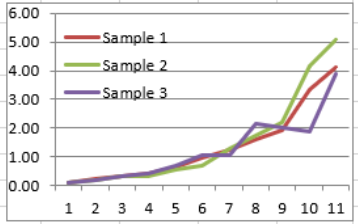
Working with Formulas

Example: tracking relative performance of a gene of interest

	Protein Measurements			Control Measurments			Normalized Measurments			
	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/I4	=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/I6	=E6/J6
7	2	1.9648544495	1.7618153065	2.1663168706	2	4.77	5.28	5.29	2	=C7/H7	=D7/I7	=E7/J7
8	3	3.2285862189	2.9406779614	3.3406732759	3	5.09	4.89	4.9	3	=C8/H8	=D8/I7	=E8/J8
9	4	4.5880385806	3.5307408593	6.0582866435	4	4.84	5.03	5.75	4	=C9/H9	=D9/I9	=E9/J9
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/J12
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







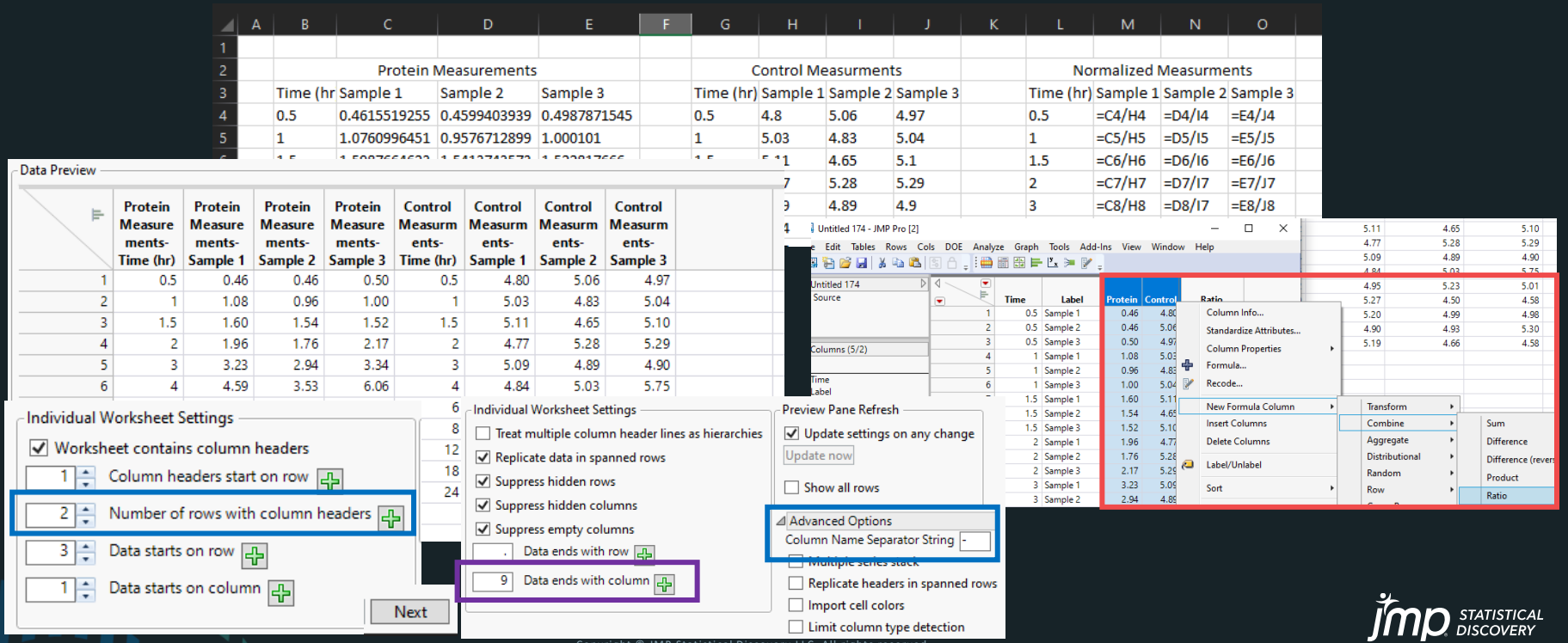
Complexity:

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

Copyright © JMP Statistical Discovery LLC. All rights reserved.

JMP STATISTICAL DISCOVERY

Working with Formulas



Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

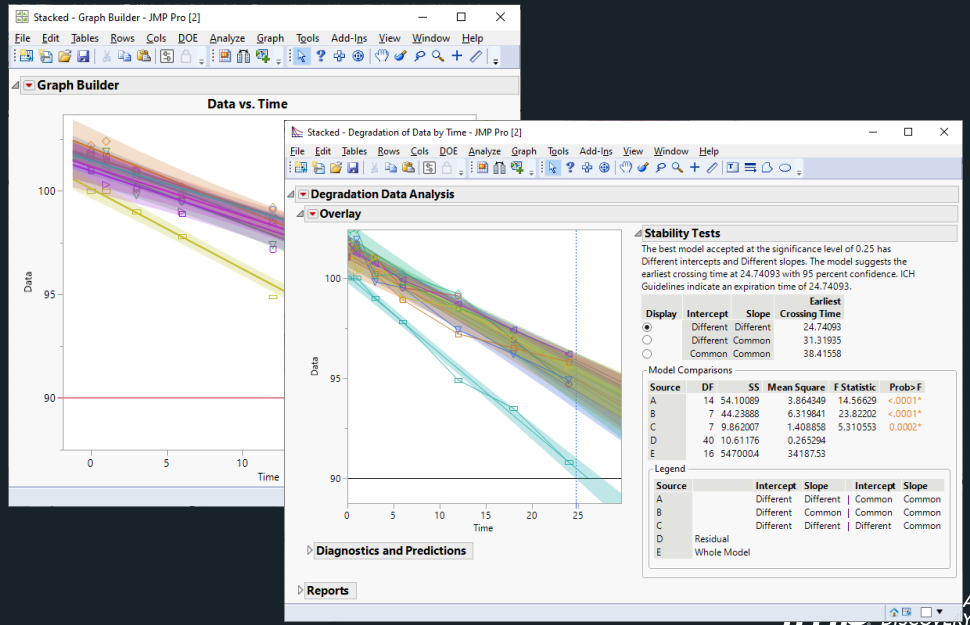
Workflow Automation

Source Scripts and Enhanced Log

Example: assessing drug product expiry

	A	B	C	D	E	F	G	H	I	J
1										
2										
3		Table 1								
4			Time points							
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: Data 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										

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



Copyright © JMP Statistical Discovery LLC. All rights reserved.

Workflow Automation

Source Scripts and Enhanced Log

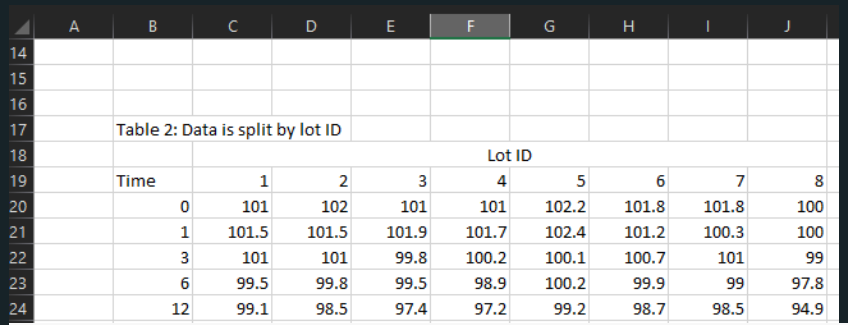
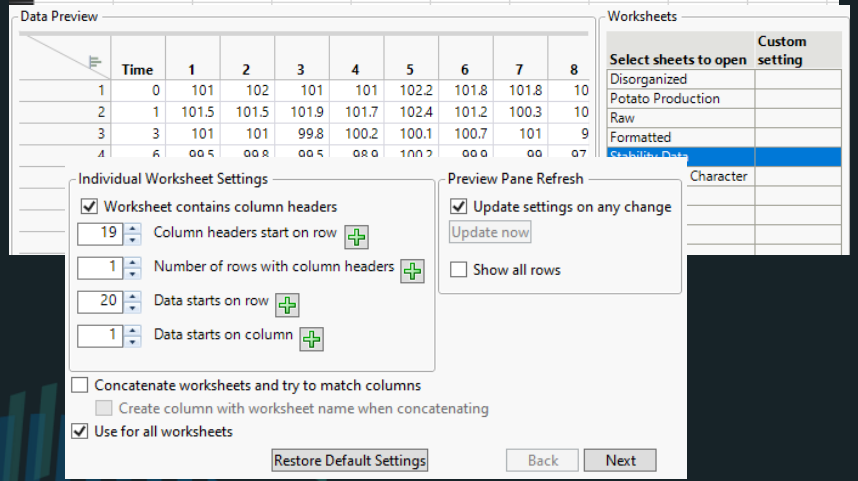
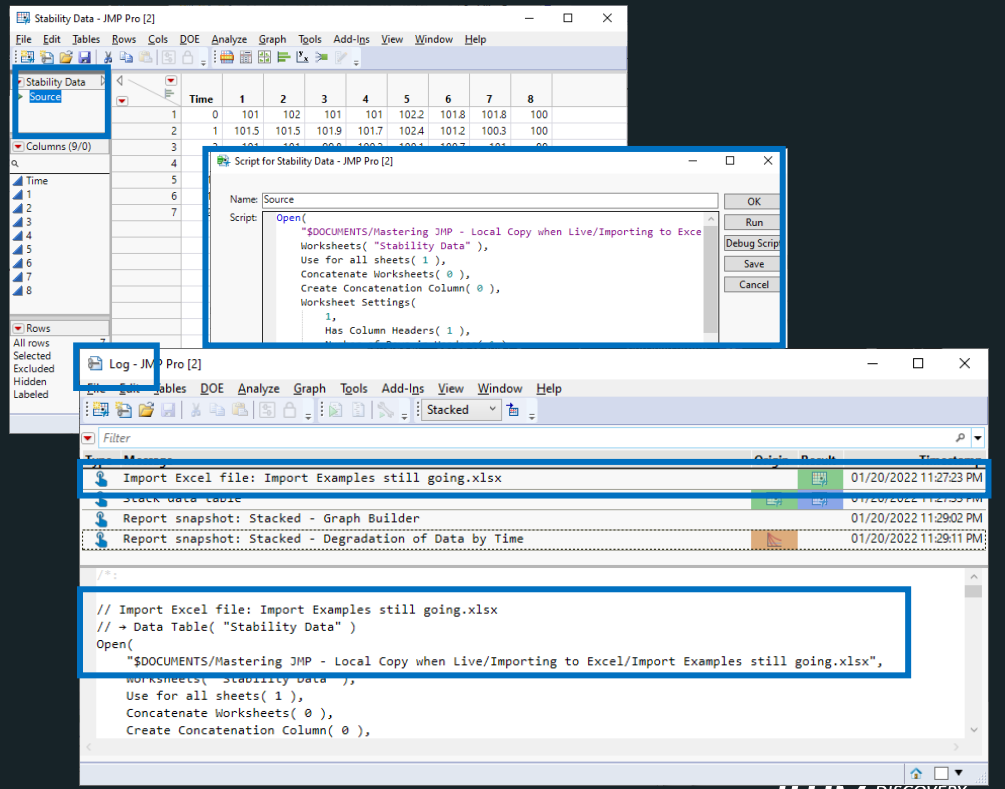


Table 2: Data is split by lot ID

	Lot ID							
Time	1	2	3	4	5	6	7	8
0	101	102	101	101	102.2	101.8	101.8	100
1	101.5	101.5	101.9	101.7	102.4	101.2	100.3	100
3	101	101	99.8	100.2	100.1	100.7	101	99
6	99.5	99.8	99.5	98.9	100.2	99.9	99	97.8
12	99.1	98.5	97.4	97.2	99.2	98.7	98.5	94.9

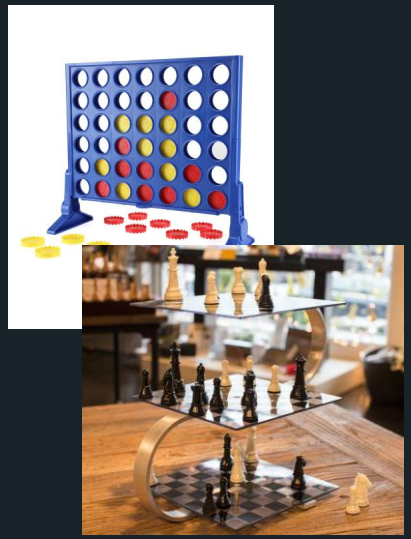




Copyright © JMP Statistical Discovery LLC. All rights reserved.

Excel Import Wizard

Wrapping Up



Easily work with the data as it comes!

Have you got:

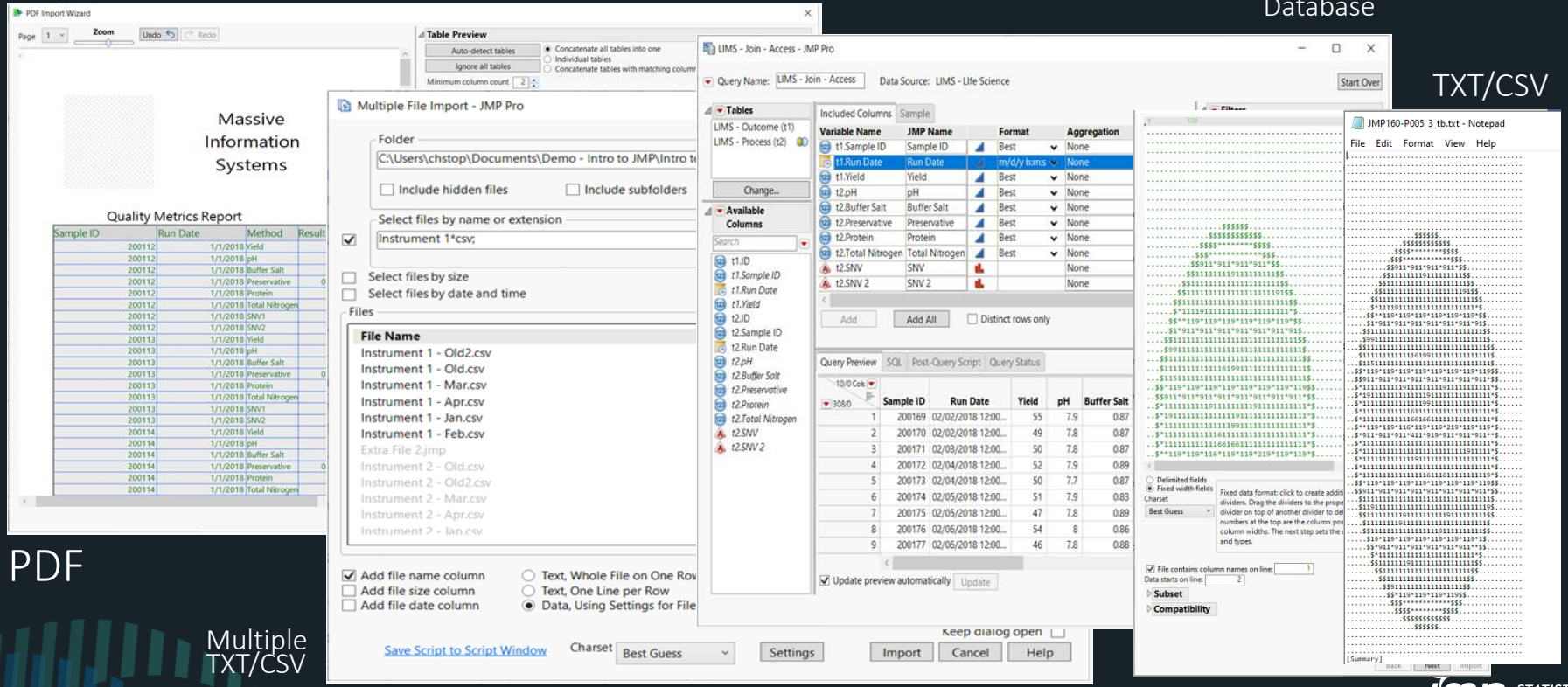
- Data anywhere in the worksheet, visible or hidden?
- Multiple worksheets you need?
- Merged cells?
- Multiple row or hierarchical column headers?

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

But Wait, There's More!

Other JMP Import Wizards

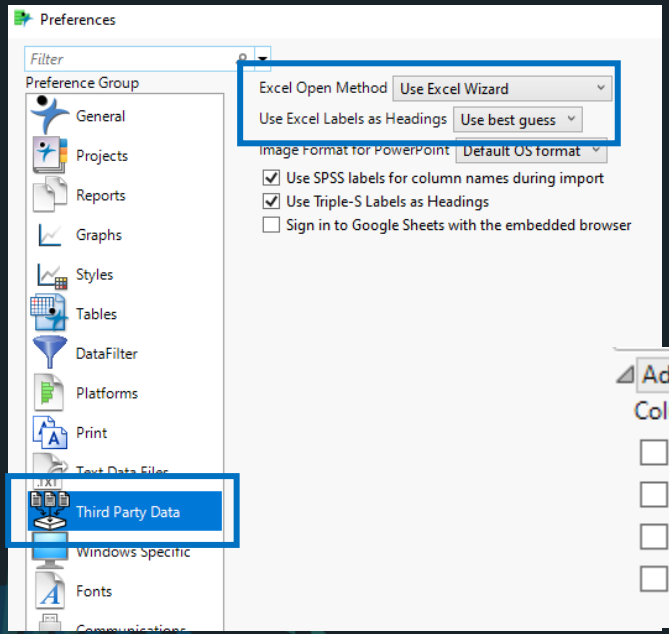


Copyright © JMP Statistical Discovery LLC. All rights reserved.

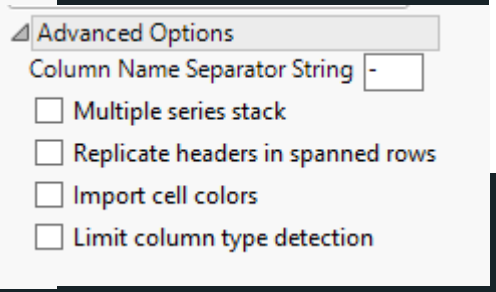
JMP STATISTICAL DISCOVERY

Homework

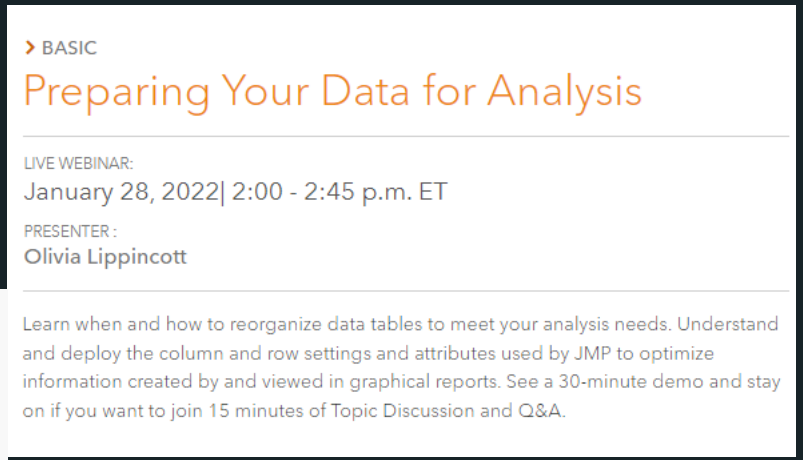
JMP Preferences
Under File or Ctrl-K



Import Wizard
Advanced
Options



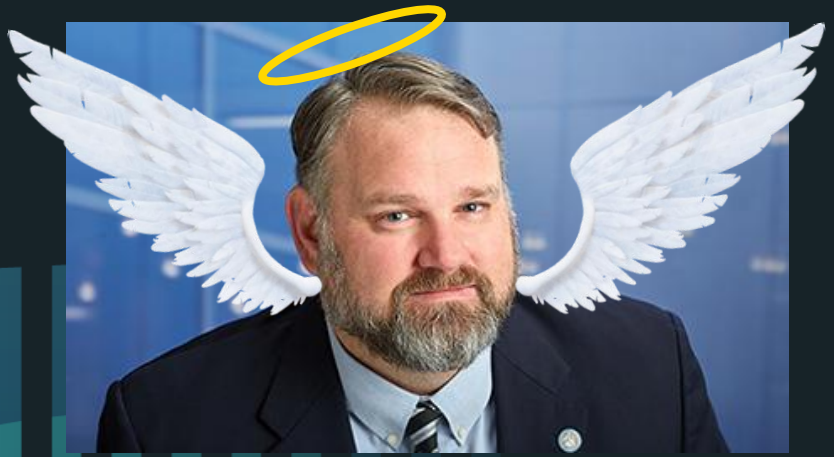
Register for Next Week's Session
with Olivia!



Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

Patron Saint of Excel Import Wizard



Byron Wingerd

Copyright © JMP Statistical Discovery LLC. All rights reserved.

jmp STATISTICAL DISCOVERY

Thank You for Attending!

jmp.com

Copyright © JMP Statistical Discovery LLC. All rights reserved.