



Practices

Extract the Excel files from the **Excel Import Practice.zip** file and use them in the following Practices.

1. Import the data from the file Practice 1.xls into JMP. Your table should look like the following screen capture when finished.

Tank Process Co...		Date	T1	PH1	T2	PH2	T3	PH3	T4	PH4	Initials	
Source	1	10Aug2019 8:00 AM	35.9	7.04	35.9	7.03	36.2	7.08	35.8	7.06	DM	
	2	10Aug2019 12:00 PM	36	6.98	36	7.03	35.8	6.96	36.1	6.98	DO	
Columns (10/0)	3	10Aug2019 4:00 PM	36.1	7	35.8	6.99	36	7.01	36.3	7.07	DO	
	4	10Aug2019 8:00 PM	35.7	6.99	35.9	7.04	36.2	7.02	36.1	6.96	DM	
Date	5	11Aug2019 12:00 AM	35.9	7	35.8	6.92	36.3	7.01	36.1	7.02	DM	
T1	6	11Aug2019 4:00 AM	36.3	6.97	36.1	7.05	35.9	7.07	36.4	7.02	LT	
PH1	7	11Aug2019 8:00 AM	360	7.1	35.7	6.95	36.1	7.03	36	6.95	MB	
T2	8	11Aug2019 12:00 PM	35.9	6.96	35.5	7	36	6.97	36.2	7.02	LT	
PH2	9	11Aug2019 4:00 PM	35.7	7.05	36.2	6.99	36.2	6.92	35.8	6.99	DO	
T3	10	11Aug2019 8:00 PM	36.2	6.97	36.1	7	35.9	7.04	36.2	7.03	MB	
PH3	11	12Aug2019 12:00 AM	36.1	7	36.2	7.07	35.6	7.00	35.7	7.02	MB	
T4	12	12Aug2019 4:00 AM	36.1	6.97	36.1	7.05	36.2	6.94	35.9	7.05	DO	
PH4	13	12Aug2019 8:00 AM	35.9	6.95	35.6	7.01	35.8	6.99	36	6.96	LT	
Initials	14	12Aug2019 12:00 PM	35.5	7.07	35.7	7.03	36.3	6.98	36	7	MB	
Rows	15	12Aug2019 4:00 PM	36	7.01	35.8	7.02	35.9	6.99	35.8	7.06	DO	
All rows	73	12Aug2019 8:00 PM	36.2	6.98	35.9	6.98	36	7.03	36.1	6.98	LT	
Selected	0	17	13Aug2019 12:00 AM	359	7.01	35.9	7.04	36.3	6.95	36.3	6.97	MB
Excluded	0	18	13Aug2019 4:00 AM	35.6	6.99	35.7	6.99	36	6.99	36	7.06	LT
Hidden	0	19	13Aug2019 8:00 AM	35.9	7.06	36.1	7	35.9	6.95	36	6.93	DO
Labeled	0	20	13Aug2019 12:00 PM	36.3	7.03	35.7	6.93	36	6.96	36.1	7.12	LT

2. Import the data from the file Practice 2.xls into JMP. Your table should look like the following screen capture when finished.

Practice 2		Tank	Date	D1	D2	D3	Initials
Source		1	10Aug2019 7:00 AM	238127.7641	377828.508	196823.6007	LT
		2	10Aug2019 7:00 PM	289276.9745	317880.357	335965.6909	MB
		3	11Aug2019 7:00 AM	332327.579	321366.7393	355721.5192	DO
Columns (6/0)		4	11Aug2019 7:00 PM	515332.4079	395323.3088	374406.4314	DM
		5	12Aug2019 7:00 AM	683111.5694	490968.5544	610545.2195	MB
Tank		6	12Aug2019 7:00 PM	693568.7078	551841.9702	518414.1774	DM
Date		7	13Aug2019 7:00 AM	596197.3245	678797.4192	630260.7427	DM
D1		8	13Aug2019 7:00 PM	832199.1278	880758.0787	866918.0848	DO
D2		9	14Aug2019 7:00 AM	953643.4638	965867.4602	1191388.682	MB
D3		10	14Aug2019 7:00 PM	1172407.229	1075174.988	1419080.623	LT
Initials		11	15Aug2019 7:00 AM	1210872.948	1496909.216	1309052.784	LT
		12	15Aug2019 7:00 PM	1959826.493	1657192.124	1830677.836	DO
		13	16Aug2019 7:00 AM	1901514.601	1527721.35	1885324.787	MB
		14	16Aug2019 7:00 PM	2555451.295	3163936.914	2266192.428	DO
		15	17Aug2019 7:00 AM	2355619.25	2885527.383	2974071.217	DO
Rows		16	17Aug2019 7:00 PM	3380470.015	4136865.145	2874023.251	DM
All rows	100	17	18Aug2019 7:00 AM	3791315.485	3891052.966	3025639.542	DM
Selected	25	18	18Aug2019 7:00 PM	4256703.594	3752615.288	5131824.293	DM
Excluded	0	19	19Aug2019 7:00 AM	5783728.856	5083131.51	5134539.639	DO
Hidden	0	20	19Aug2019 7:00 PM	6395296.13	8287460.45	7009250.475	LT
Labeled	0						

3. Import the data from the file Practice 3.xls into JMP. Your table should look like the following screen capture when finished.

Average Monthly...		State	City	Year	Month	Temp
1	Texas	Houston	2020	Jan	57.8	
2	Texas	Houston	2020	Feb	56.9	
3	Texas	Houston	2020	Mar	71	
4	Texas	Houston	2020	Apr	70.8	
5	Texas	Houston	2020	May	78	
6	Texas	Houston	2020	Jun	82.4	
7	Texas	Houston	2020	Jul	86.6	
8	Texas	Houston	2020	Aug	86.6	
9	Texas	Houston	2020	Sep	81	
10	Texas	Houston	2020	Oct	71.7	
11	Texas	Houston	2020	Nov	66	
12	Texas	Houston	2020	Dec	55.4	
13	Texas	Houston	2021	Jan	55.2	
14	Texas	Houston	2021	Feb	51.8	
15	Texas	Houston	2021	Mar	64.4	
16	Texas	Houston	2021	Apr	68.6	
17	Texas	Houston	2021	May	76.3	
18	Texas	Houston	2021	Jun	83.6	
19	Texas	Houston	2021	Jul	84	
20	Texas	Houston	2021	Aug	86.1	

End of Practices

Solutions

1. Import the data from the file Practice 1.xlsx into JMP.
 - a. Select **File > Open**.
 - b. If needed, change the file type to Data Files or All Files.
 - c. Select **Practice 1.xlsx**.
 - d. Click **Open**.
 - e. Click **Restore Default Settings**.

Data Preview

	Start:	10Aug2019 8:00 AM	Column 3	Column 4	By
1	Finish:	22Aug2019 8:00 AM			
2					
3	Drug:	SAS962			
4	Batch:	1417			
5					
6	Target Temperature:	35			

Rows Shown: 82 / 82

Worksheets

Select sheets to open	Custom setting
Tank Process Control	

Select all

Individual Worksheet Settings

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

Preview Pane Refresh

- Update settings on any change
- Show all rows

Concatenate worksheets and try to match columns

Create column with worksheet name when concatenating

Use for all worksheets

Restore Default Settings Back Next Import Cancel Help

- f. In the Data Preview panel, scroll down, then select row 9.

Data Preview

	Start:	10Aug2019 8:00 AM	Column 3	Column 4	By
7	Target pH:	7			
8					
9	Date	T1	PH1	T2	PH2
10	10Aug2019 8:00 AM	35.9	7.04	35.9	7.03
11	10Aug2019 12:00 PM	36	6.98	36	7.03
12	10Aug2019 4:00 PM	36.1	7	35.8	6.99
13	10Aug2019 8:00 PM	35.7	6.99	35.9	7.04

Rows Shown: 82 / 82

- g. Click the green plus button  next to **Column headers start on row**.

Data Preview

	Date	T1	PH1	T2	PH2
1	10Aug2019 8:00 AM	35.9	7.04	35.9	7.03
2	10Aug2019 12:00 PM	36	6.98	36	7.03
3	10Aug2019 4:00 PM	36.1	7	35.8	6.99
4	10Aug2019 8:00 PM	35.7	6.99	35.9	7.04
5	11Aug2019 12:00 AM	35.9	7	35.8	6.92
6	11Aug2019 4:00 AM	36.3	6.97	36.1	7.05
7	11Aug2019 8:00 AM	36.6	7.1	36.5	7.05

Rows Shown: 73 / 73


Worksheets


Select sheets to open	Custom setting
Tank Process Control	


Select all


Individual Worksheet Settings

Worksheet contains column headers

10 Column headers start on row 

1 Number of rows with column headers 

11 Data starts on row 

1 Data starts on column 

Concatenate worksheets and try to match columns

Create column with worksheet name when concatenating

Use for all worksheets

Preview Pane Refresh

Update settings on any change

Update now

Show all rows

Restore Default Settings Back Next Import Cancel Help

- h. Click **Import**.
- i. Widen the **Date** column.

		Date
	1	10Aug2019 8:00 AM
	2	10Aug2019 12:00 PM
	3	10Aug2019 4:00 PM
	4	10Aug2019 8:00 PM
	5	11Aug2019 12:00 AM
	6	11Aug2019 4:00 AM
	7	11Aug2019 8:00 AM
	8	11Aug2019 12:00 PM
	9	11Aug2019 4:00 PM
	10	11Aug2019 8:00 PM
	11	12Aug2019 12:00 AM
	12	12Aug2019 4:00 AM
	13	12Aug2019 8:00 AM

The **Date** column format looks acceptable, but the column has been imported with a Character data type and Nominal modeling type. Change to Numeric, Continuous.

- j. Right-click the top of the **Date** column and select **Column Info**.

'Date' in table 'Tank Process Control'		OK
Column Name	Date	Cancel
<input type="checkbox"/> Lock		Apply
Data Type	Character	Help
Modeling Type	Nominal	
Column Properties		

- k. Change the **Data Type** to **Numeric**.
- l. Change the **Modeling Type** to **Continuous**.
- m. Under **Format**, click **Best**, then select **Time** > **ddMonyyyy h:m**.

'Date' in table 'Tank Process Control'

Column Name

Lock

Data Type

Modeling Type

Format Width

Input Format

n. Click **OK**.

	Date	T1	PH1	T2	PH2	T3	PH3	T4	PH4	Initials
1	10Aug2019 8:00 AM	35.9	7.04	35.9	7.03	36.2	7.08	35.8	7.06	DM
2	10Aug2019 12:00 PM	36	6.98	36	7.03	35.8	6.96	36.1	6.98	DO
3	10Aug2019 4:00 PM	36.1	7	35.8	6.99	36	7.01	36.3	7.07	DO
4	10Aug2019 8:00 PM	35.7	6.99	35.9	7.04	36.2	7.02	36.1	6.96	DM
5	11Aug2019 12:00 AM	35.9	7	35.8	6.92	36.3	7.01	36.1	7.02	DM
6	11Aug2019 4:00 AM	36.3	6.97	36.1	7.05	35.9	7.07	36.4	7.02	LT
7	11Aug2019 8:00 AM	360	7.1	35.7	6.95	36.1	7.03	36	6.95	MB
8	11Aug2019 12:00 PM	35.9	6.96	35.5	7	36	6.97	36.2	7.02	LT
9	11Aug2019 4:00 PM	35.7	7.05	36.2	6.99	36.2	6.92	35.8	6.99	DO
10	11Aug2019 8:00 PM	36.2	6.97	36.1	7	35.9	7.04	36.2	7.03	MB
11	12Aug2019 12:00 AM	36.1	7	36.2	7.07	35.6	7.00	35.7	7.02	MB
12	12Aug2019 4:00 AM	36.1	6.97	36.1	7.05	36.2	6.94	35.9	7.05	DO
13	12Aug2019 8:00 AM	35.9	6.95	35.6	7.01	35.8	6.99	36	6.96	LT
14	12Aug2019 12:00 PM	35.5	7.07	35.7	7.03	36.3	6.98	36	7	MB
15	12Aug2019 4:00 PM	36	7.01	35.8	7.02	35.9	6.99	35.8	7.06	DO
16	12Aug2019 8:00 PM	36.2	6.98	35.9	6.98	36	7.03	36.1	6.98	LT
17	13Aug2019 12:00 AM	359	7.01	35.9	7.04	36.3	6.95	36.3	6.97	MB
18	13Aug2019 4:00 AM	35.6	6.99	35.7	6.99	36	6.99	36	7.06	LT
19	13Aug2019 8:00 AM	35.9	7.06	36.1	7	35.9	6.95	36	6.93	DO
20	13Aug2019 12:00 PM	36.3	7.03	35.7	6.93	36	6.96	36.1	7.12	LT

2. Import the data from the file Practice 2.xlsx into JMP.

- Select **File > Open**.
- If needed, change the file type to Data Files or All Files.
- Select **Practice 2.xlsx**.
- Click **Open**.
- Click **Restore Default Settings**.

Data Preview

	Start:	10Aug2019 7:00 AM	Column 3	Column 4
1	Finish:	22Aug2019 7:00 AM		
2				
3	Drug:	SAS962		
4	Batch:	1417		
5				
6	Date	D1	D2	D3

Rows Shown: 31 / 31

Worksheets

Select sheets to open	Custom setting
Tank 1 Growth Control	
Tank 2 Growth Control	
Tank 3 Growth Control	
Tank 4 Growth Control	

Select all

Individual Worksheet Settings

Worksheet contains column headers

1 Column headers start on row

1 Number of rows with column headers

2 Data starts on row

1 Data starts on column

Concatenate worksheets and try to match columns

Create column with worksheet name when concatenating

Use for all worksheets

Preview Pane Refresh

Update settings on any change

Update now

Show all rows

Restore Default Settings Back Next Import Cancel Help

f. In the **Data Preview** panel, select row 6.

Data Preview

	Start:	10Aug2019 7:00 AM	Column 3	Column 4
1	Finish:	22Aug2019 7:00 AM		
2				
3	Drug:	SAS962		
4	Batch:	1417		
5				
6	Date	D1	D2	D3

Rows Shown: 31 / 31

g. Click the green plus button next to **Column headers start on row**.

h. Select both checkboxes **Concatenate worksheets and try to match columns** and **Create column with worksheet name when concatenating**.

Individual Worksheet Settings		Preview Pane Refresh	
<input checked="" type="checkbox"/>	Worksheet contains column headers	<input checked="" type="checkbox"/>	Update settings on any change
<input type="text" value="7"/>	Column headers start on row	<input type="text" value="Update now"/>	
<input type="text" value="1"/>	Number of rows with column headers	<input type="checkbox"/>	Show all rows
<input type="text" value="8"/>	Data starts on row		
<input type="text" value="1"/>	Data starts on column		
<input checked="" type="checkbox"/>	Concatenate worksheets and try to match columns		
<input checked="" type="checkbox"/>	Create column with worksheet name when concatenating		
<input checked="" type="checkbox"/>	Use for all worksheets		

i. Click **Import**.

Practice 2		Source Table	Date	D1	D2	D3	Initials
1	Tank 1 Growth C...	10Aug2019 7:00...	238127.7641	377828.508	196823.6007	LT	
2	Tank 1 Growth C...	10Aug2019 7:00...	289276.9745	317880.357	335965.6909	MB	
3	Tank 1 Growth C...	11Aug2019 7:00...	332327.579	321366.7393	355721.5192	DO	
4	Tank 1 Growth C...	11Aug2019 7:00...	515332.4079	395323.3088	374406.4314	DM	
5	Tank 1 Growth C...	12Aug2019 7:00...	683111.5694	490968.5544	610545.2195	MB	
6	Tank 1 Growth C...	12Aug2019 7:00...	693568.7078	551841.9702	518414.1774	DM	
7	Tank 1 Growth C...	13Aug2019 7:00...	596197.3245	678797.4192	630260.7427	DM	
8	Tank 1 Growth C...	13Aug2019 7:00...	832199.1278	880758.0787	866918.0848	DO	
9	Tank 1 Growth C...	14Aug2019 7:00...	953643.4638	965867.4602	1191388.682	MB	
10	Tank 1 Growth C...	14Aug2019 7:00...	1172407.229	1075174.988	1419080.623	LT	
11	Tank 1 Growth C...	15Aug2019 7:00...	1210872.948	1496909.216	1309052.784	LT	
12	Tank 1 Growth C...	15Aug2019 7:00...	1959826.493	1657192.124	1830677.836	DO	
13	Tank 1 Growth C...	16Aug2019 7:00...	1901514.601	1527721.35	1885324.787	MB	
14	Tank 1 Growth C...	16Aug2019 7:00...	2555451.295	3163936.914	2266192.428	DO	
15	Tank 1 Growth C...	17Aug2019 7:00...	2355619.25	2885527.383	2974071.217	DO	
16	Tank 1 Growth C...	17Aug2019 7:00...	3380470.015	4136865.145	2874023.251	DM	
17	Tank 1 Growth C...	18Aug2019 7:00...	3791315.485	3891052.966	3025639.542	DM	
18	Tank 1 Growth C...	18Aug2019 7:00...	4256703.594	3752615.288	5131824.293	DM	
19	Tank 1 Growth C...	19Aug2019 7:00...	5783728.856	5083131.51	5134539.639	DO	
20	Tank 1 Growth C...	19Aug2019 7:00...	6395296.13	8287460.45	7009250.475	LT	

- j. Change the name of the **Source Table** column to **Tank**.
- k. Recode the **Tank** column to the values 1, 2, 3, and 4.
- l. Change the data type of the **Date** column to **Numeric**.
- m. Change the modeling type of the **Date** column to **Continuous**.
- n. Change the format of the **Date** column to **ddMonyyyy h:m**.

Practice 2		Tank	Date	D1	D2	D3	Initials
Source		1	10Aug2019 7:00 AM	238127.7641	377828.508	196823.6007	LT
		2	10Aug2019 7:00 PM	289276.9745	317880.357	335965.6909	MB
		3	11Aug2019 7:00 AM	332327.579	321366.7393	355721.5192	DO
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		5	12Aug2019 7:00 AM	683111.5694	490968.5544	610545.2195	MB
Tank		6	12Aug2019 7:00 PM	693568.7078	551841.9702	518414.1774	DM
Date		7	13Aug2019 7:00 AM	596197.3245	678797.4192	630260.7427	DM
D1		8	13Aug2019 7:00 PM	832199.1278	880758.0787	866918.0848	DO
D2		9	14Aug2019 7:00 AM	953643.4638	965867.4602	1191388.682	MB
D3		10	14Aug2019 7:00 PM	1172407.229	1075174.988	1419080.623	LT
Initials		11	15Aug2019 7:00 AM	1210872.948	1496909.216	1309052.784	LT
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		13	16Aug2019 7:00 AM	1901514.601	1527721.35	1885324.787	MB
		14	16Aug2019 7:00 PM	2555451.295	3163936.914	2266192.428	DO
		15	17Aug2019 7:00 AM	2355619.25	2885527.383	2974071.217	DO
Rows		16	17Aug2019 7:00 PM	3380470.015	4136865.145	2874023.251	DM
All rows	100	17	18Aug2019 7:00 AM	3791315.485	3891052.966	3025639.542	DM
Selected	25	18	18Aug2019 7:00 PM	4256703.594	3752615.288	5131824.293	DM
Excluded	0	19	19Aug2019 7:00 AM	5783728.856	5083131.51	5134539.639	DO
Hidden	0	20	19Aug2019 7:00 PM	6395296.13	8287460.45	7009250.475	LT
Labeled	0						

3. Import the data from the file Practice 3.xlsx into JMP.
 - a. Select **File > Open**.
 - b. If needed, change the file type to Data Files or All Files.
 - c. Select **Practice 3.xlsx**.
 - d. Click **Open**.
 - e. Click **Restore Default Settings**.

Data Preview

	Column 1	Column 2	2020	2020 2	2020 3	2020 4	2
1	State	City	Jan	Feb	Mar	Apr	
2	Texas	Houston	57.8	56.9	71	70.8	
3	Texas	Austin	54.8	52.5	67.5	67.2	
4	Michigan	Ann Arbor	30.4	27.8	38.6	42.9	
5	North Carolina	Charlotte	46.9	48.9	58.6	60.5	
6	North Carolina	Cary	45.8	46.4	55.2	57	

Rows Shown: 6 / 6

Worksheets

Select sheets to open	Custom setting
Average Monthly Temperature	

Select all

Individual Worksheet Settings

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

Preview Pane Refresh

- Update settings on any change
- Update now
- Show all rows

Concatenate worksheets and try to match columns

Create column with worksheet name when concatenating

Use for all worksheets

Restore Default Settings Back Next Import Cancel Help

- f. Change the **Number of rows with column headers** to 2. Note that **Data starts on row** automatically changes to 3.

Individual Worksheet Settings

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

- g. Click **Next**.
- h. Select **Treat multiple column header lines as hierarchies**.

Data Preview

	State	City	Column	Column 2	Data
1	Texas	Houston	2020	Jan	57.8
2	Texas	Houston	2020	Feb	56.9
3	Texas	Houston	2020	Mar	71
4	Texas	Houston	2020	Apr	70.8
5	Texas	Houston	2020	May	78
6	Texas	Houston	2020	Jun	82.4
7	Texas	Houston	2020	Jul	86.6

Rows Shown: 5 / 5

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 +

Use for all worksheets

Preview Pane Refresh

- Update settings on any change
-
- Show all rows
-

Worksheets

Select sheets to open	Custom setting
Average Monthly Temperature	

- i. Click **Import**.
- j. Change the name of **Column** to **Year**.
- k. Change the name of **Column 2** to **Month**.
- l. Change the name of **Data** to **Temp**.

Average Monthly...		State	City	Year	Month	Temp
1	Texas	Houston	2020	Jan	57.8	
2	Texas	Houston	2020	Feb	56.9	
3	Texas	Houston	2020	Mar	71	
4	Texas	Houston	2020	Apr	70.8	
5	Texas	Houston	2020	May	78	
6	Texas	Houston	2020	Jun	82.4	
7	Texas	Houston	2020	Jul	86.6	
8	Texas	Houston	2020	Aug	86.6	
9	Texas	Houston	2020	Sep	81	
10	Texas	Houston	2020	Oct	71.7	
11	Texas	Houston	2020	Nov	66	
12	Texas	Houston	2020	Dec	55.4	
13	Texas	Houston	2021	Jan	55.2	
14	Texas	Houston	2021	Feb	51.8	
15	Texas	Houston	2021	Mar	64.4	
16	Texas	Houston	2021	Apr	68.6	
17	Texas	Houston	2021	May	76.3	
18	Texas	Houston	2021	Jun	83.6	
19	Texas	Houston	2021	Jul	84	
20	Texas	Houston	2021	Aug	86.1	

End of Solutions