



ENGAGING STUDENTS IN STATISTICAL CONCEPT DISCOVERY FOR DEEPER LEARNING



JULIAN L. PARRIS, PH.D. ACADEMIC AMBASSADOR JMP ACADEMIC DIVISION

LEARNING: THE IMPORTANCE OF DISCOVERY

To see is to believe.

To touch is to know.

To do is to learn.

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JMP®
Powerful statistical analysis linked with interactive graphics, in memory and on the desktop.

For nearly 25 years, JMP statistical discovery software from SAS has been the tool of choice for scientists, engineers and other data explorers in almost every industry and government sector. JMP combines powerful statistics with dynamic graphics, in memory and on the desktop. Its interactive and visual paradigm enables JMP to reveal insights that are impossible to gain from raw tables of numbers or static graphs.

Because everything is linked – the graphics, statistics and data – JMP encourages you to dig deeper and ask more questions, improving your chance of making breakthrough discoveries in your data. With JMP, analyses unfold, driven by what the data reveals at each step. You can explore your data without leaving the analysis flow or having to rerun commands as new questions arise.

JMP brings your data analysis to a whole new level, letting you tackle routine and difficult statistical problems more easily and communicate your findings more effectively.

[Explore the core capabilities of JMP.](#)

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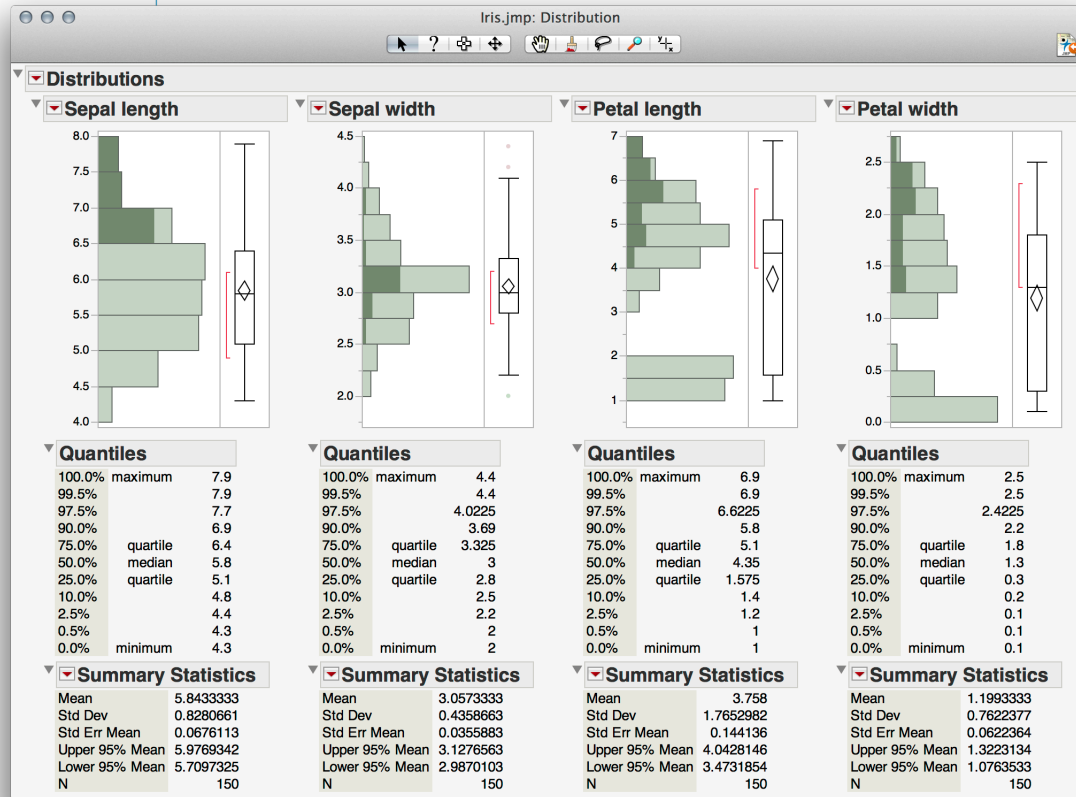
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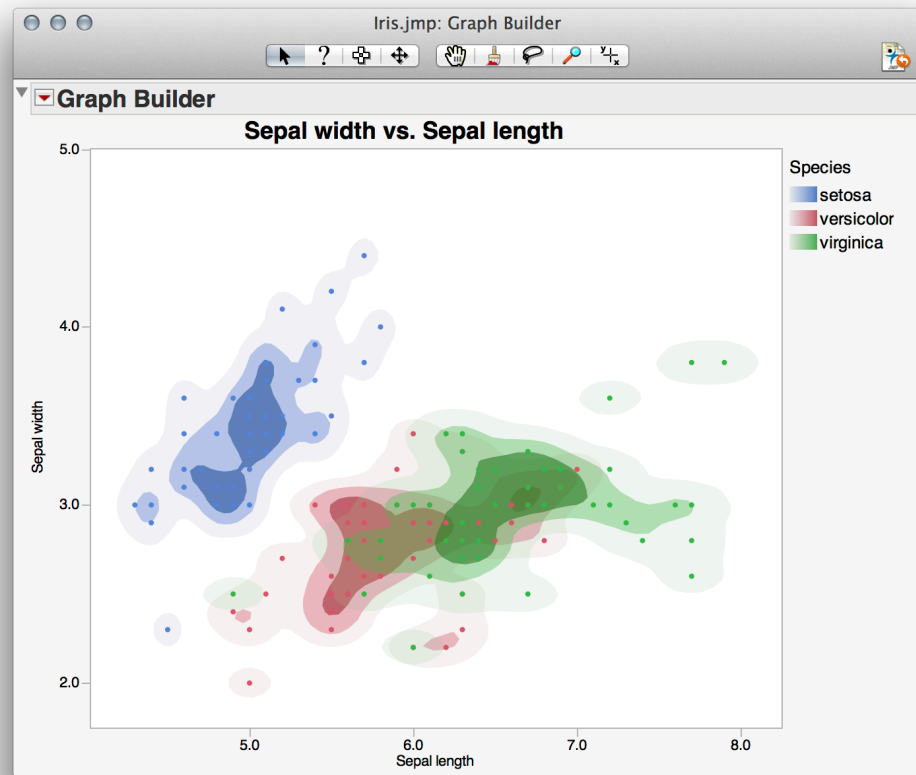
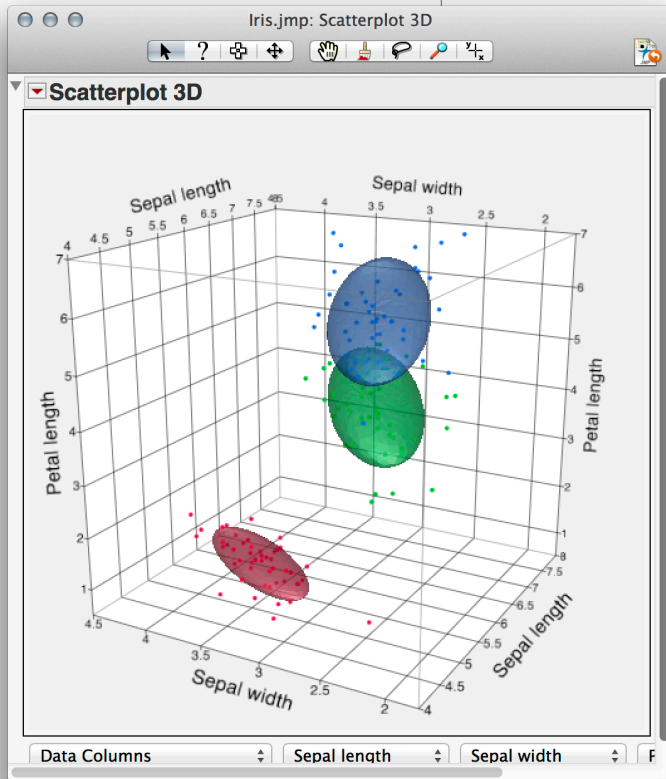
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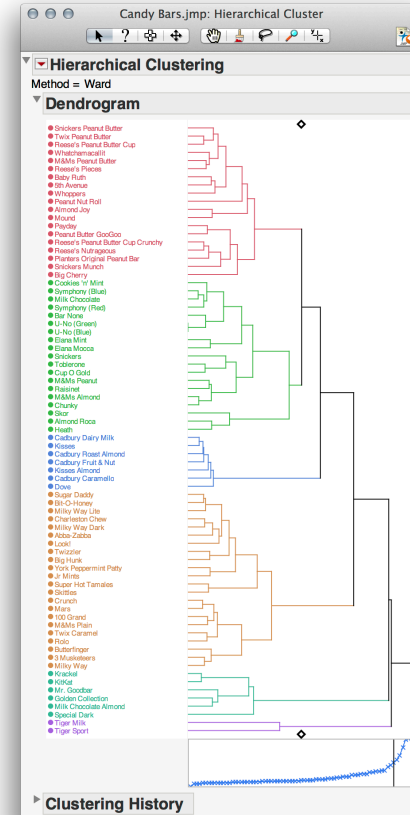
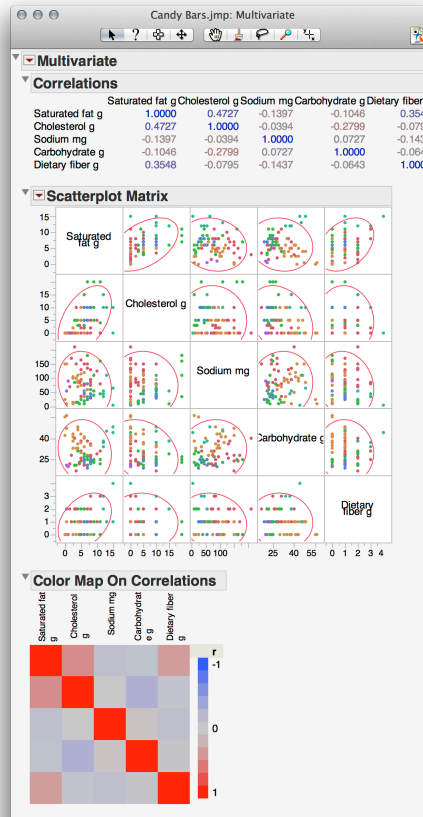
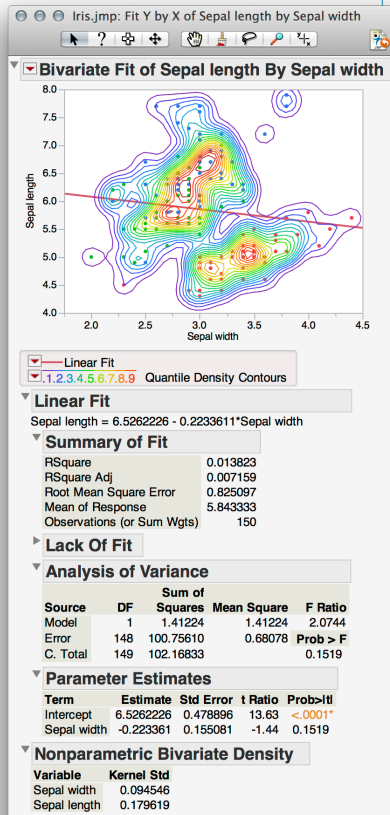


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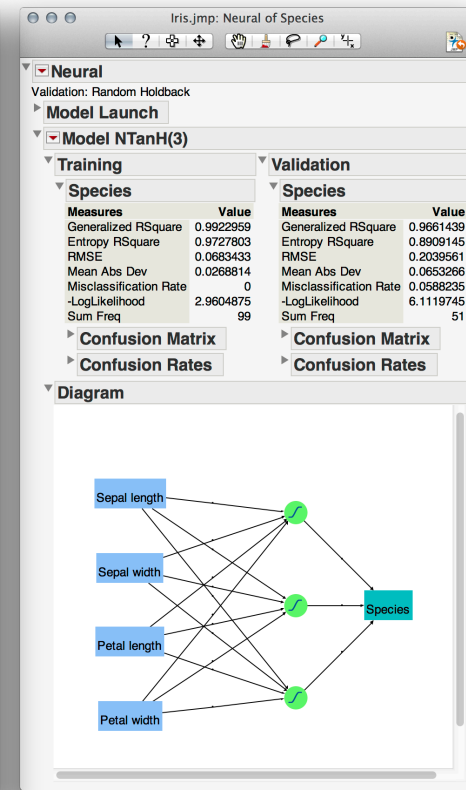
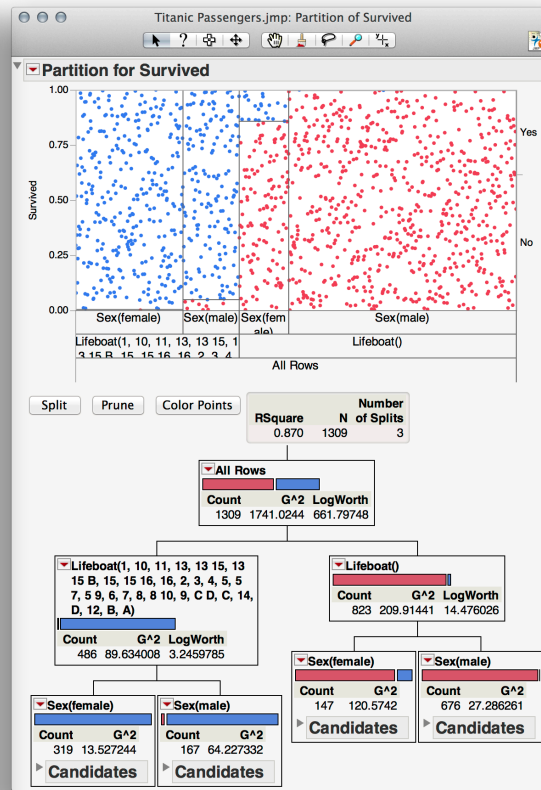
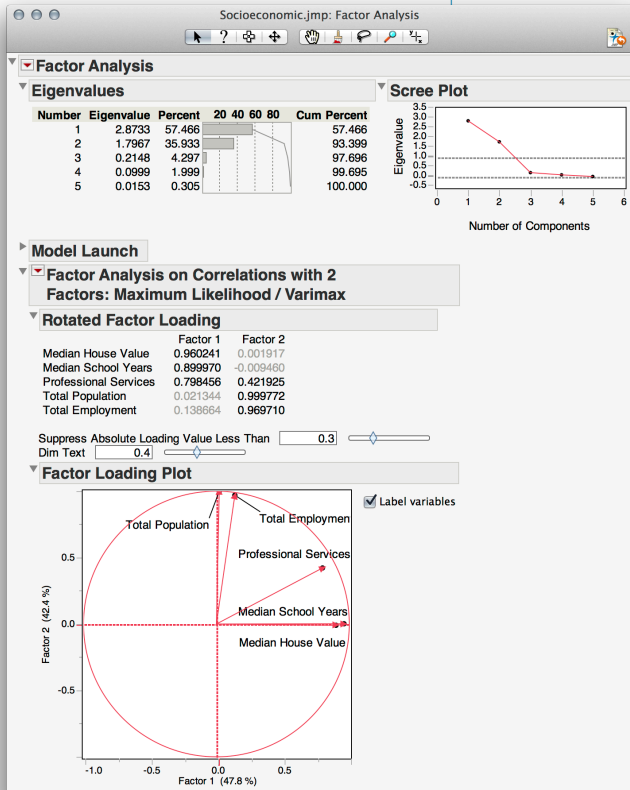


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JMP Fact Sheet (PDF) New in JMP 11 Customer Successes with JMP

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EXAMPLE DATA

[HTTP://WWW.TINYURL.COM/2014-ECOTS-PARRIS](http://www.tinyurl.com/2014-ecots-parris)

	Student	Score on Exam	Previous Knowledge	HS Math Aptitude	Study Minutes	Study Hours
1	1683905	35	71	92	191	3
2	1893939	42	77	80	463	8
3	1083712	29	59	72	136	2
4	1976294	29	67	65	171	3
5	1774937	52	60	99	432	7
6	1475487	47	67	101	358	6
7	1819897	51	72	96	517	9
8	1201958	45	74	102	574	10
9	1487258	50	85	100	483	8
10	1993431	50	89	102	479	8
11	1777430	42	71	107	357	6
12	1864910	56	91	121	413	7
13	1184163	39	76	94	254	4
14	1553972	67	74	135	598	10
15	1281074	52	64	91	487	8
16	1253907	66	88	133	658	11
17	1913828	48	67	95	501	8
18	1138937	46	66	106	432	7
19	1174754	37	69	77	284	5
20	1022097	46	71	95	722	12
21	1128687	25	59	62	176	3
22	1425501	51	98	118	527	9
23	1302155	42	64	81	550	9

EXAMPLE DATA

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Today:

- Touch distributions of variables to see relationships
- Explore residuals in simple regressions to understand ordinary least squares
- Perform “manual multiple regression” to understand partial regression coefficients
- Visualize bilinear interaction terms to see “effects on effects”
- Explore the consequence of collinear predictors

Demonstration



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