

The GLMSELECT Procedure

Data Set	WORK.CARS
Dependent Variable	mpg
Selection Method	Stepwise
Select Criterion	Significance Level
Stop Criterion	Significance Level
Entry Significance Level (SLE)	0.05
Stay Significance Level (SLS)	0.05
Effect Hierarchy Enforced	None

Number of Observations Read	392
Number of Observations Used	392

Class Level Information		
Class	Levels	Values
cylinders	5	3 4 5 6 8
origin	3	1 2 3
year	13	70 71 72 73 74 75 76 77 78 79 80 81 82

Dimensions	
Number of Effects	11
Number of Parameters	29

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Stepwise Selection Summary										
Step	Effect Entered	Effect Removed	Number Effects In	Number Parns In	Model R-Square	Adjusted R-Square	AIC	AICC	BIC	CP
0	Intercept		1	1	0.0000	0.0000	2005.9349	2005.9657	1610.5490	3304.5521
1	inv_weight		2	2	0.7067	0.7060	1527.0631	1527.1250	1131.6958	695.4449
2	year		3	14	0.8785	0.8744	1205.5244	1206.8010	809.9525	84.7315
3	inv_horsepower		4	15	0.8855	0.8812	1184.3936	1185.8443	790.1830	61.0192
4	cylinders		5	19	0.8935	0.8883	1164.0464	1166.3106	771.9007	39.5087
5	inv_displacement		6	20	0.8962	0.8909	1156.1059	1158.6032	764.9750	31.6554
6	acceleration		7	21	0.8992	0.8938*	1146.3723*	1149.1148*	756.5842*	22.3417*
* Optimal Value of Criterion										

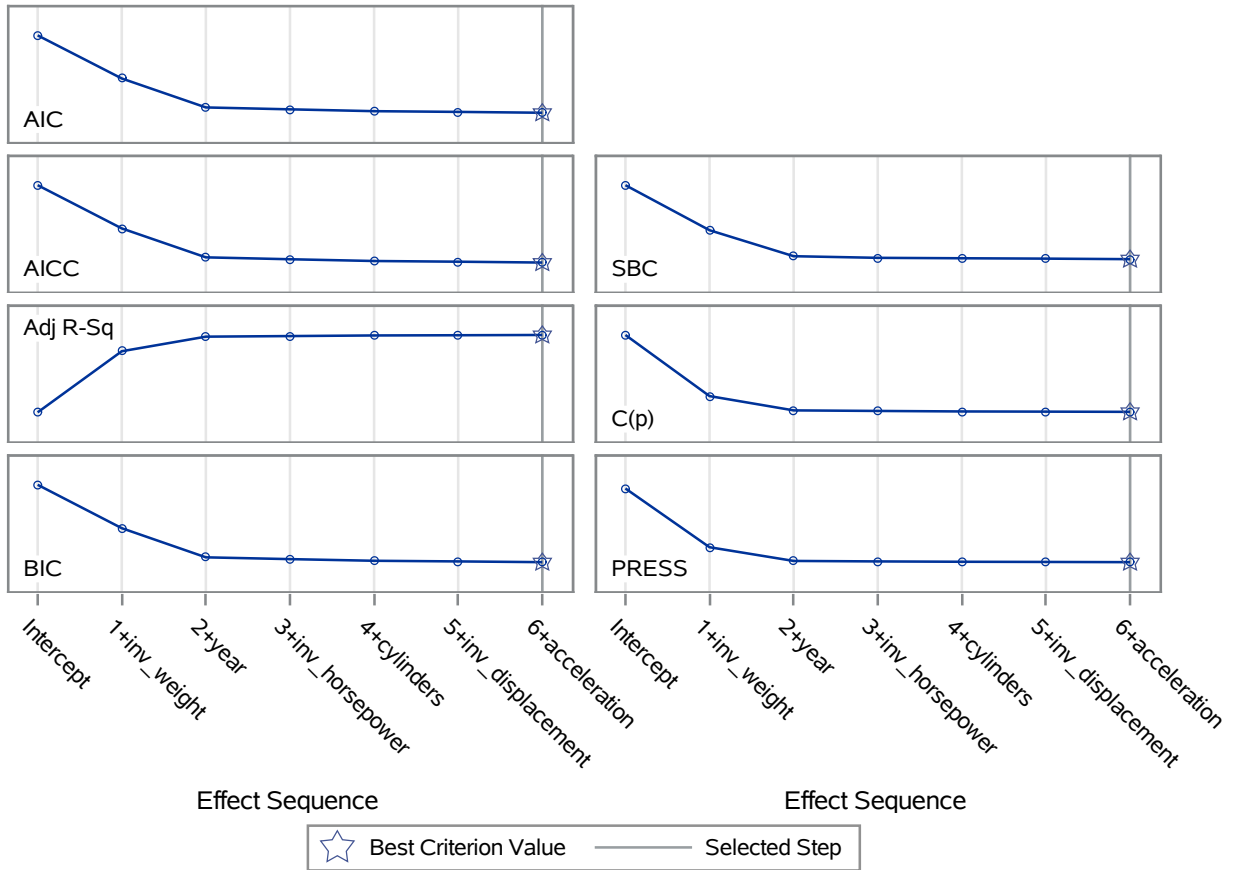
Stepwise Selection Summary							
Step	Effect Entered	Effect Removed	SBC	PRESS	ASE	F Value	Pr > F
0	Intercept		1615.9061	23940.9856	60.7627	0.00	1.0000
1	inv_weight		1141.0056	7055.9507	17.8190	939.90	<.0001
2	year		867.1221	3113.7836	7.3801	44.56	<.0001
3	inv_horsepower		849.9626	2978.1765	6.9572	22.92	<.0001
4	cylinders		845.5004	2876.9365	6.4719	6.99	<.0001
5	inv_displacement		841.5311	2824.6687	6.3098	9.55	0.0021
6	acceleration		835.7688*	2760.4169*	6.1237	11.27	0.0009
* Optimal Value of Criterion							

Selection stopped because the candidate for entry has SLE > 0.05 and the candidate for removal has SLS < 0.05.

Stop Details					
Candidate For	Effect	Candidate Significance		Compare Significance	
Entry	origin	0.1843	>	0.0500	(SLE)
Removal	acceleration	0.0009	<	0.0500	(SLS)

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Fit Criteria for mpg



The GLMSELECT Procedure Selected Model

The selected model is the model at the last step (Step 6).

Effects:	Intercept cylinders acceleration year inv_weight inv_horsepower inv_displacement
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Analysis of Variance				
Source	DF	Sum of Squares	Mean Square	F Value
Model	20	21418	1070.92423	165.51
Error	371	2400.50887	6.47037	
Corrected Total	391	23819		

Root MSE	2.54369
Dependent Mean	23.44592
R-Square	0.8992
Adj R-Sq	0.8938
AIC	1146.37228
AICC	1149.11483
BIC	756.58415
C(p)	22.34172
PRESS	2760.41692
SBC	835.76878
ASE	6.12375

Parameter Estimates					
Parameter		DF	Estimate	Standard Error	t Value
Intercept		1	14.826000	1.573099	9.42
cylinders	3	1	-9.023923	1.833617	-4.92
cylinders	4	1	0.324318	0.730697	0.44
cylinders	5	1	1.373399	1.593738	0.86
cylinders	6	1	0.001041	0.479935	0.00
cylinders	8	0	0	.	.
acceleration		1	-0.288828	0.086024	-3.36
year	70	1	-7.866917	0.709339	-11.09
year	71	1	-7.658050	0.694060	-11.03
year	72	1	-8.365644	0.695236	-12.03
year	73	1	-8.801480	0.648807	-13.57
year	74	1	-7.530648	0.705324	-10.68
year	75	1	-7.096504	0.676811	-10.49
year	76	1	-6.747557	0.656809	-10.27
year	77	1	-5.251707	0.685074	-7.67
year	78	1	-4.938285	0.645292	-7.65

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Selected Model

Parameter Estimates					
Parameter		DF	Estimate	Standard Error	t Value
year	79	1	-2.901547	0.681431	-4.26
year	80	1	1.073616	0.689833	1.56
year	81	1	-1.806139	0.680140	-2.66
year	82	0	0	.	.
inv_weight		1	2.117903	0.559282	3.79
inv_horsepower		1	0.572086	0.114699	4.99
inv_displacement		1	0.666035	0.170562	3.90