The GLMSELECT Procedure

Data Set	WORK.COMBINED
Dependent Variable	LogSalePrice
Selection Method	Forward
Select Criterion	Adj R-Sq
Stop Criterion	Cross Validation
Cross Validation Method	Random
Cross Validation Fold	5
Effect Hierarchy Enforced	None
Random Number Seed	642136864

Number of Observations Read	2919
Number of Observations Used	1371
Number of Observations Used for Training	1371
Number of Observations Used for Testing	0

Class Level Information

Class	Levels	Values
Alley	3	Gr NA Pa
BldgType	5	1Fam 2fmCon Duplex Twnhs TwnhsE
BsmtCond	5	Fa Gd NA Po TA
BsmtExposure	5	Av Gd Mn NA No
BsmtFinType1	7	ALQ BLQ GLQ LwQ NA Rec Unf
BsmtFinType2	7	ALQ BLQ GLQ LwQ NA Rec Unf
BsmtQual	5	Ex Fa Gd NA TA
CentralAir	2	N Y
Condition1	9	Artery Feedr Norm PosA PosN RRAe RRAn RRNe RRNn
Condition2	8	Artery Feedr Norm PosA PosN RRAe RRAn RRNn
Electrical	6	FuseA FuseF FuseP Mix NA SBrkr
ExterCond	5	Ex Fa Gd Po TA
ExterQual	4	Ex Fa Gd TA
Exterior1st	14	AsbShng BrkComm BrkFace CBlock CemntBd HdBoard ImStucc MetalSd Plywood Stone Stucco VinylSd Wd Sdng WdShing
Exterior2nd	16	AsbShng AsphShn Brk Cmn BrkFace CBlock CmentBd HdBoard ImStucc MetalSd Other Plywood Stone Stucco VinylSd Wd Sdng Wd Shng
Fence	5	GdPrv GdWo MnPrv MnWw NA
FireplaceQu	6	Ex Fa Gd NA Po TA
Foundation	6	BrkTil CBlock PConc Slab Stone Wood
Functional	8	Maj1 Maj2 Min1 Min2 Mod NA Sev Typ
GarageCond	5	Ex Fa Gd Po TA

The GLMSELECT Procedure

Class Level Information		
Class	**Levels**	**Values**
GarageFinish	3	Fin RFn Unf
GarageQual	5	Ex Fa Gd Po TA
GarageType	6	2Types Attchd Basment BuiltIn CarPort Detchd
Heating	6	Floor GasA GasW Grav OthW Wall
HeatingQC	5	Ex Fa Gd Po TA
HouseStyle	8	1.5Fin 1.5Unf 1Story 2.5Fin 2.5Unf 2Story SFoyer SLvl
KitchenQual	5	Ex Fa Gd NA TA
LandContour	4	Bnk HLS Low Lvl
LandSlope	3	Gtl Mod Sev
LotConfig	5	Corner CulDSac FR2 FR3 Inside
LotFrontage	88	10 11 12 13 14 15 16 17 18 19 20 21 22 24 25 26 28 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 ...
LotShape	4	IR1 IR2 IR3 Reg
MSZoning	6	C (a FV NA RH RL RM
MasVnrType	5	BrkCmn BrkFace NA None Stone
MiscFeature	5	Gar2 NA Othr Shed TenC
Neighborhood	25	Blmngtn Blueste BrDale BrkSide ClearCr CollgCr Crawfor Edwards Gilbert IDOTRR MeadowV Mitchel NAmes NPkVill NWAmes NoRidge NridgHt OldTown SWISU Sawyer SawyerW Somerst StoneBr Timber Veenker
PavedDrive	3	N P Y
PoolQC	4	Ex Fa Gd NA
RoofMatl	8	ClyTile CompShg Membran Metal Roll Tar&Grv WdShake WdShngl
RoofStyle	6	Flat Gable Gambrel Hip Mansard Shed
SaleCondition	6	Abnorml AdjLand Alloca Family Normal Partial
SaleType	10	COD CWD Con ConLD ConLI ConLw NA New Oth WD
Street	2	Grvl Pave
Utilities	3	AllPub NA NoSeWa

Dimensions	
Number of Effects	81
Number of Parameters	379

The GLMSELECT Procedure

Forward Selection Summary

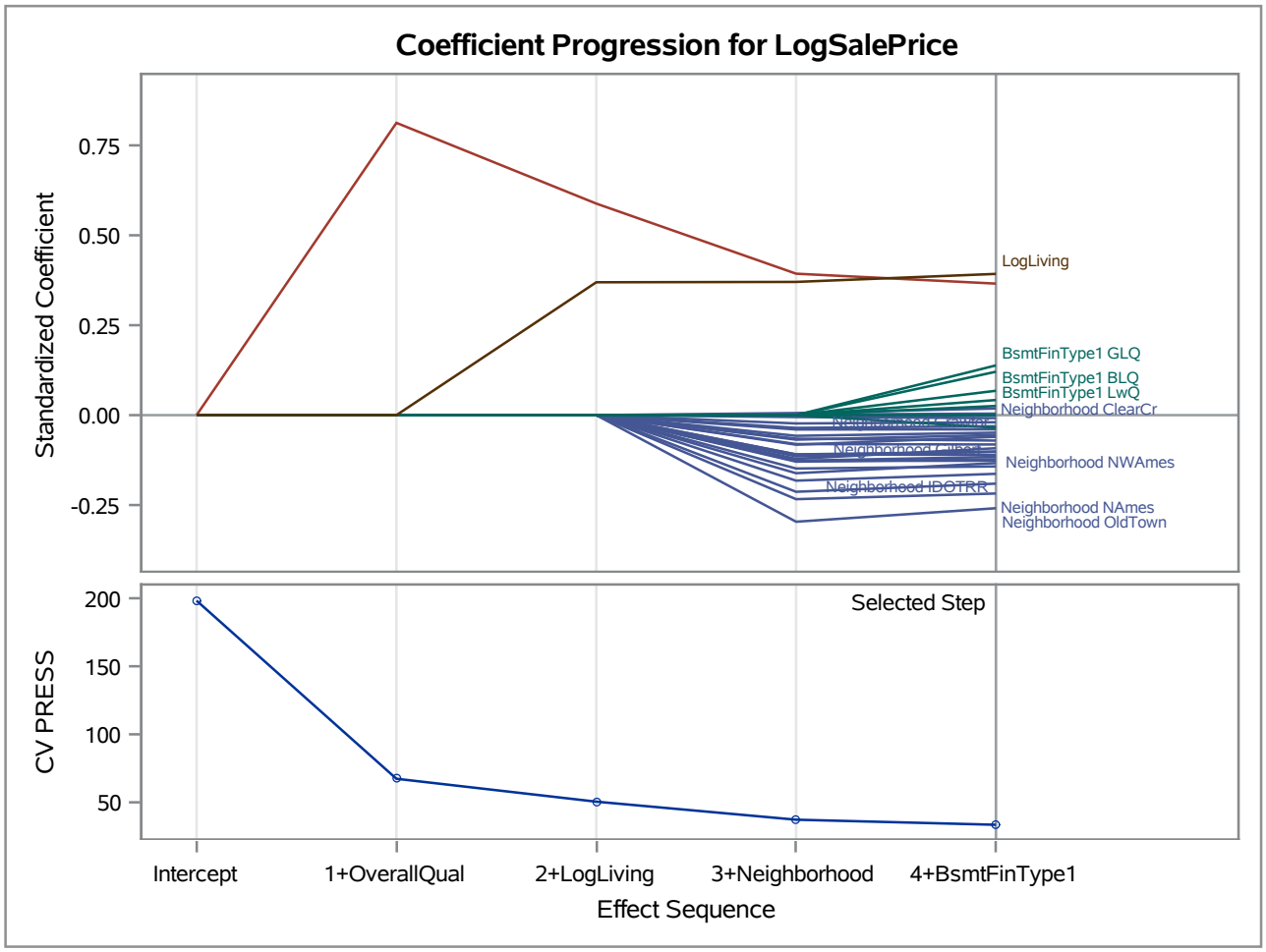
Step	Effect Entered	Number Effects In	Number Parms In	Adjusted R-Square	ASE	Test ASE	CV PRESS
0	Intercept	1	1	0.0000	0.1444	.	198.2204
1	OverallQual	2	2	0.6601	0.0490	.	67.3101
2	LogLiving	3	3	0.7460	0.0366	.	50.4942
3	Neighborhood	4	27	0.8185	0.0257	.	37.2300
4	BsmtFinType1	5	33	0.8370*	0.0230	.	33.5121*

* Optimal Value of Criterion

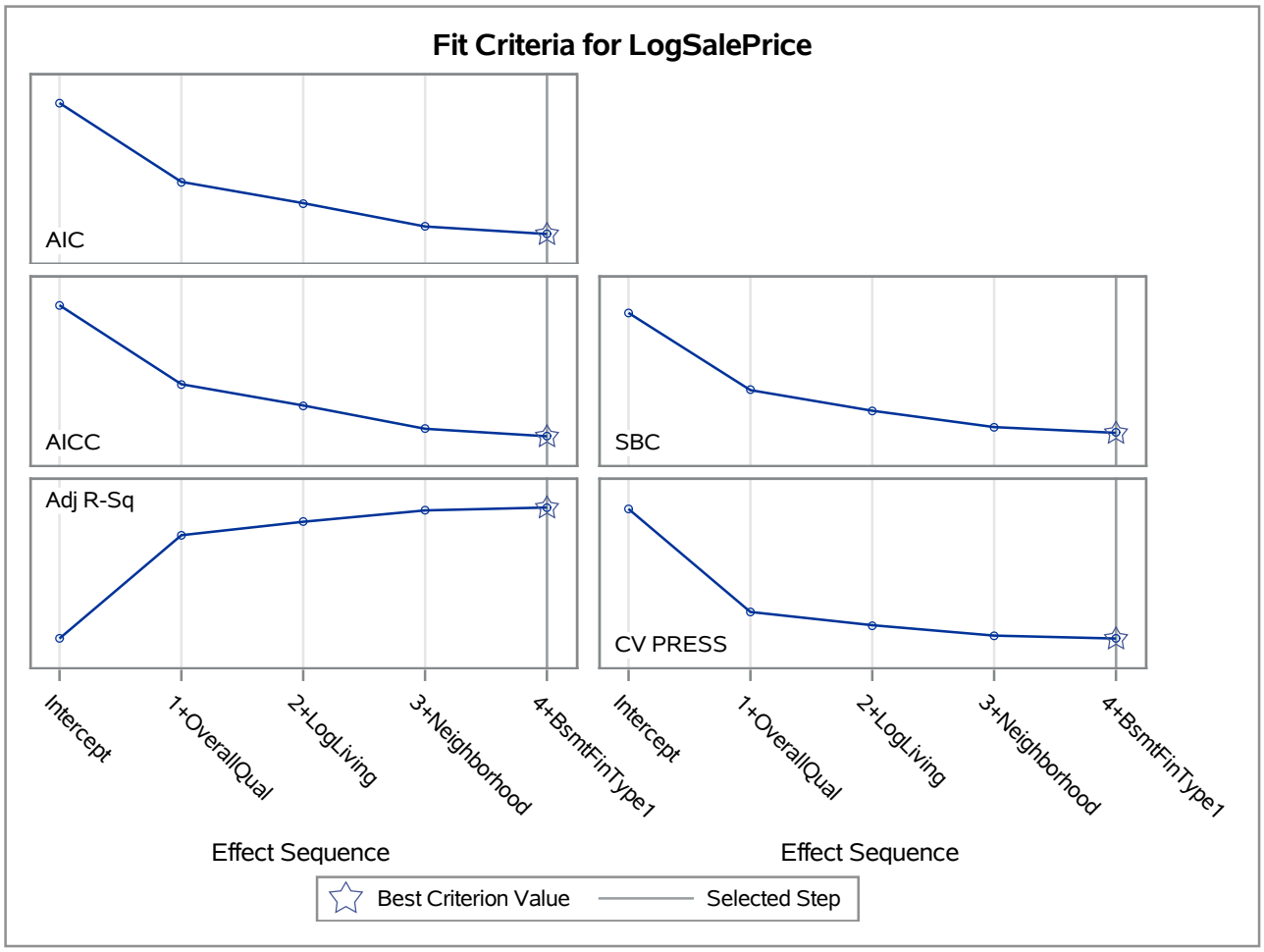
Selection stopped at a local minimum of the cross validation PRESS.

Stop Details

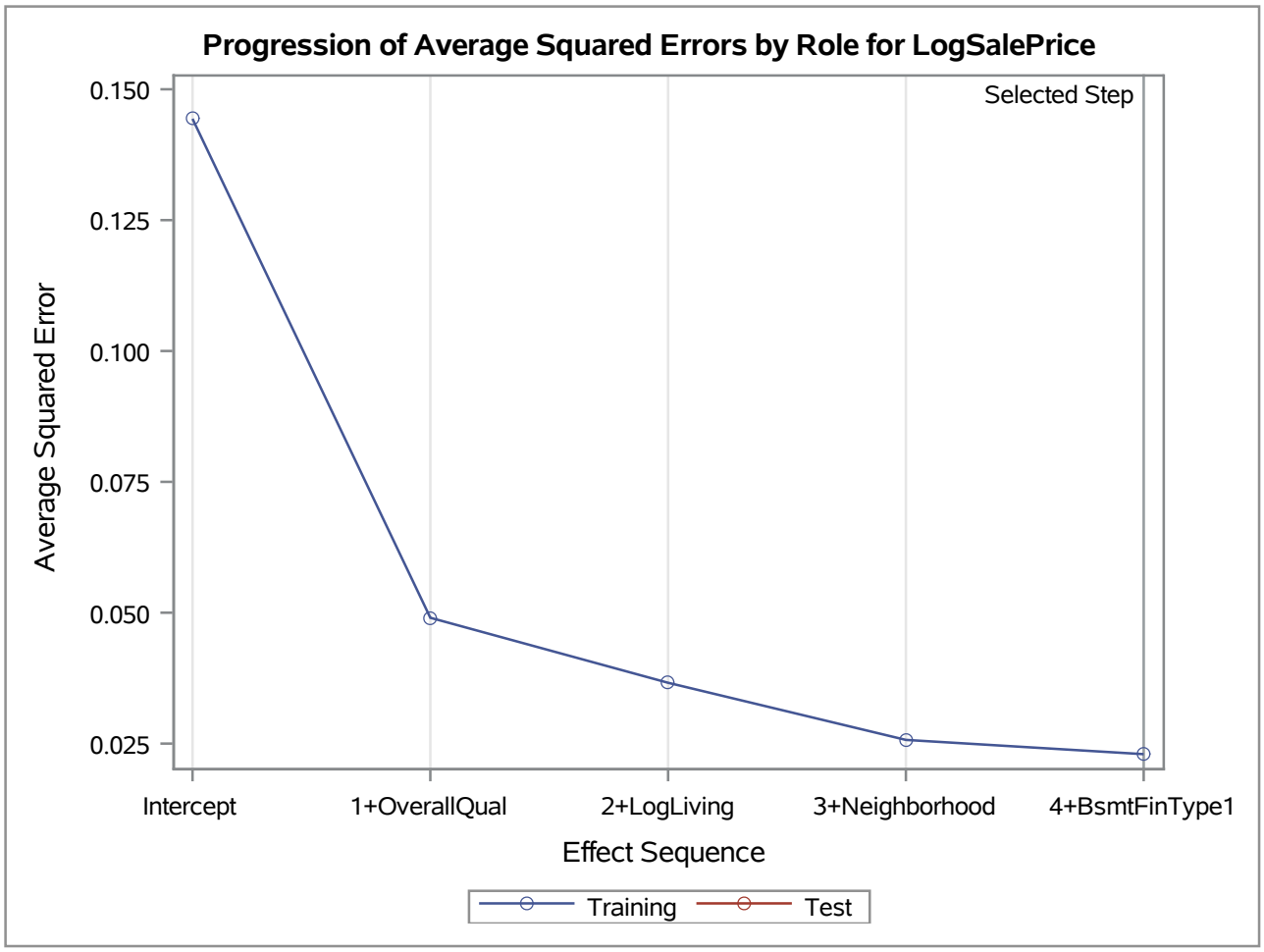
Candidate For	Effect	Candidate CV PRESS		Compare CV PRESS
Entry	LotFrontage	36.8259	>	33.5121



The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model is the model at the last step (Step 4).

Effects:	Intercept Neighborhood OverallQual BsmtFinType1 LogLiving

Analysis of Variance				
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**
Model	32	166.41511	5.20047	220.86
Error	1338	31.50522	0.02355	
Corrected Total	1370	197.92032		

Root MSE	0.15345
Dependent Mean	12.05374
R-Square	0.8408
Adj R-Sq	0.8370
AIC	-3733.97842
AICC	-3732.19698
SBC	-4934.60966
ASE (Train)	0.02298
ASE (Test)	.
CV PRESS	33.51214

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	10.299776	0.064584	159.48
Neighborhood Blmngtn	1	-0.167477	0.059781	-2.80
Neighborhood Blueste	1	-0.393421	0.118184	-3.33
Neighborhood BrDale	1	-0.521026	0.061280	-8.50
Neighborhood BrkSide	1	-0.275486	0.052054	-5.29
Neighborhood ClearCr	1	-0.054117	0.055311	-0.98
Neighborhood CollgCr	1	-0.124410	0.048343	-2.57
Neighborhood Crawfor	1	-0.112379	0.051473	-2.18
Neighborhood Edwards	1	-0.312443	0.050098	-6.24
Neighborhood Gilbert	1	-0.150920	0.049939	-3.02
Neighborhood IDOTRR	1	-0.430830	0.055413	-7.77
Neighborhood MeadowV	1	-0.450159	0.064994	-6.93
Neighborhood Mitchel	1	-0.176073	0.052113	-3.38
Neighborhood NAmes	1	-0.226014	0.048017	-4.71
Neighborhood NPkVill	1	-0.332628	0.069351	-4.80
Neighborhood NWAmes	1	-0.214491	0.049860	-4.30
Neighborhood NoRidge	1	-0.018353	0.053098	-0.35
Neighborhood NridgHt	1	0.030622	0.050276	0.61
Neighborhood OldTown	1	-0.376363	0.049512	-7.60
Neighborhood SWISU	1	-0.368107	0.058230	-6.32
Neighborhood Sawyer	1	-0.210800	0.050459	-4.18
Neighborhood SawyerW	1	-0.193573	0.050856	-3.81
Neighborhood Somerst	1	-0.096258	0.049721	-1.94
Neighborhood StoneBr	1	0.011962	0.056162	0.21
Neighborhood Timber	1	-0.071450	0.052735	-1.35
Neighborhood Veenker	0	0	.	.
OverallQual	1	0.103396	0.005353	19.31
BsmtFinType1 ALQ	1	0.127562	0.014584	8.75
BsmtFinType1 BLQ	1	0.084710	0.016428	5.16
BsmtFinType1 GLQ	1	0.115267	0.011952	9.64
BsmtFinType1 LwQ	1	0.044263	0.020724	2.14
BsmtFinType1 NA	1	-0.091237	0.030762	-2.97
BsmtFinType1 Rec	1	0.055506	0.017024	3.26

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	**DF**	**Estimate**	**Standard Error**	**t Value**
BsmtFinType1 Unf	0	0	.	.
LogLiving	1	0.462127	0.017529	26.36

The GLMSELECT Procedure

Data Set	WORK.COMBINED
Dependent Variable	LogSalePrice
Selection Method	Backward
Select Criterion	Adj R-Sq
Stop Criterion	Cross Validation
Choose Criterion	Cross Validation
Cross Validation Method	Random
Cross Validation Fold	5
Effect Hierarchy Enforced	None
Random Number Seed	649206868

Number of Observations Read	2919
Number of Observations Used	1371
Number of Observations Used for Training	1371
Number of Observations Used for Testing	0

Class Level Information		
Class	**Levels**	**Values**
Alley	3	Gr NA Pa
BldgType	5	1Fam 2fmCon Duplex Twnhs TwnhsE
BsmtCond	5	Fa Gd NA Po TA
BsmtExposure	5	Av Gd Mn NA No
BsmtFinType1	7	ALQ BLQ GLQ LwQ NA Rec Unf
BsmtFinType2	7	ALQ BLQ GLQ LwQ NA Rec Unf
BsmtQual	5	Ex Fa Gd NA TA
CentralAir	2	N Y
Condition1	9	Artery Feedr Norm PosA PosN RRAe RRAn RRNe RRNn
Condition2	8	Artery Feedr Norm PosA PosN RRAe RRAn RRNn
Electrical	6	FuseA FuseF FuseP Mix NA SBrkr
ExterCond	5	Ex Fa Gd Po TA
ExterQual	4	Ex Fa Gd TA
Exterior1st	14	AsbShng BrkComm BrkFace CBlock CemntBd HdBoard ImStucc MetalSd Plywood Stone Stucco VinylSd Wd Sdng WdShing
Exterior2nd	16	AsbShng AsphShn Brk Cmn BrkFace CBlock CmentBd HdBoard ImStucc MetalSd Other Plywood Stone Stucco VinylSd Wd Sdng Wd Shng
Fence	5	GdPrv GdWo MnPrv MnWw NA
FireplaceQu	6	Ex Fa Gd NA Po TA
Foundation	6	BrkTil CBlock PConc Slab Stone Wood
Functional	8	Maj1 Maj2 Min1 Min2 Mod NA Sev Typ

The GLMSELECT Procedure

Class Level Information		
Class	**Levels**	**Values**
GarageCond	5	Ex Fa Gd Po TA
GarageFinish	3	Fin RFn Unf
GarageQual	5	Ex Fa Gd Po TA
GarageType	6	2Types Attchd Basment BuiltIn CarPort Detchd
Heating	6	Floor GasA GasW Grav OthW Wall
HeatingQC	5	Ex Fa Gd Po TA
HouseStyle	8	1.5Fin 1.5Unf 1Story 2.5Fin 2.5Unf 2Story SFoyer SLvl
KitchenQual	5	Ex Fa Gd NA TA
LandContour	4	Bnk HLS Low Lvl
LandSlope	3	Gtl Mod Sev
LotConfig	5	Corner CulDSac FR2 FR3 Inside
LotFrontage	88	10 11 12 13 14 15 16 17 18 19 20 21 22 24 25 26 28 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 ...
LotShape	4	IR1 IR2 IR3 Reg
MSZoning	6	C (a FV NA RH RL RM
MasVnrType	5	BrkCmn BrkFace NA None Stone
MiscFeature	5	Gar2 NA Othr Shed TenC
Neighborhood	25	Blmngtn Blueste BrDale BrkSide ClearCr CollgCr Crawfor Edwards Gilbert IDOTRR MeadowV Mitchel NAmes NPkVill NWAmes NoRidge NridgHt OldTown SWISU Sawyer SawyerW Somerst StoneBr Timber Veenker
PavedDrive	3	N P Y
PoolQC	4	Ex Fa Gd NA
RoofMatl	8	ClyTile CompShg Membran Metal Roll Tar&Grv WdShake WdShngl
RoofStyle	6	Flat Gable Gambrel Hip Mansard Shed
SaleCondition	6	Abnorml AdjLand Alloca Family Normal Partial
SaleType	10	COD CWD Con ConLD ConLI ConLw NA New Oth WD
Street	2	Grvl Pave
Utilities	3	AllPub NA NoSeWa

Dimensions	
Number of Effects	81
Number of Parameters	379

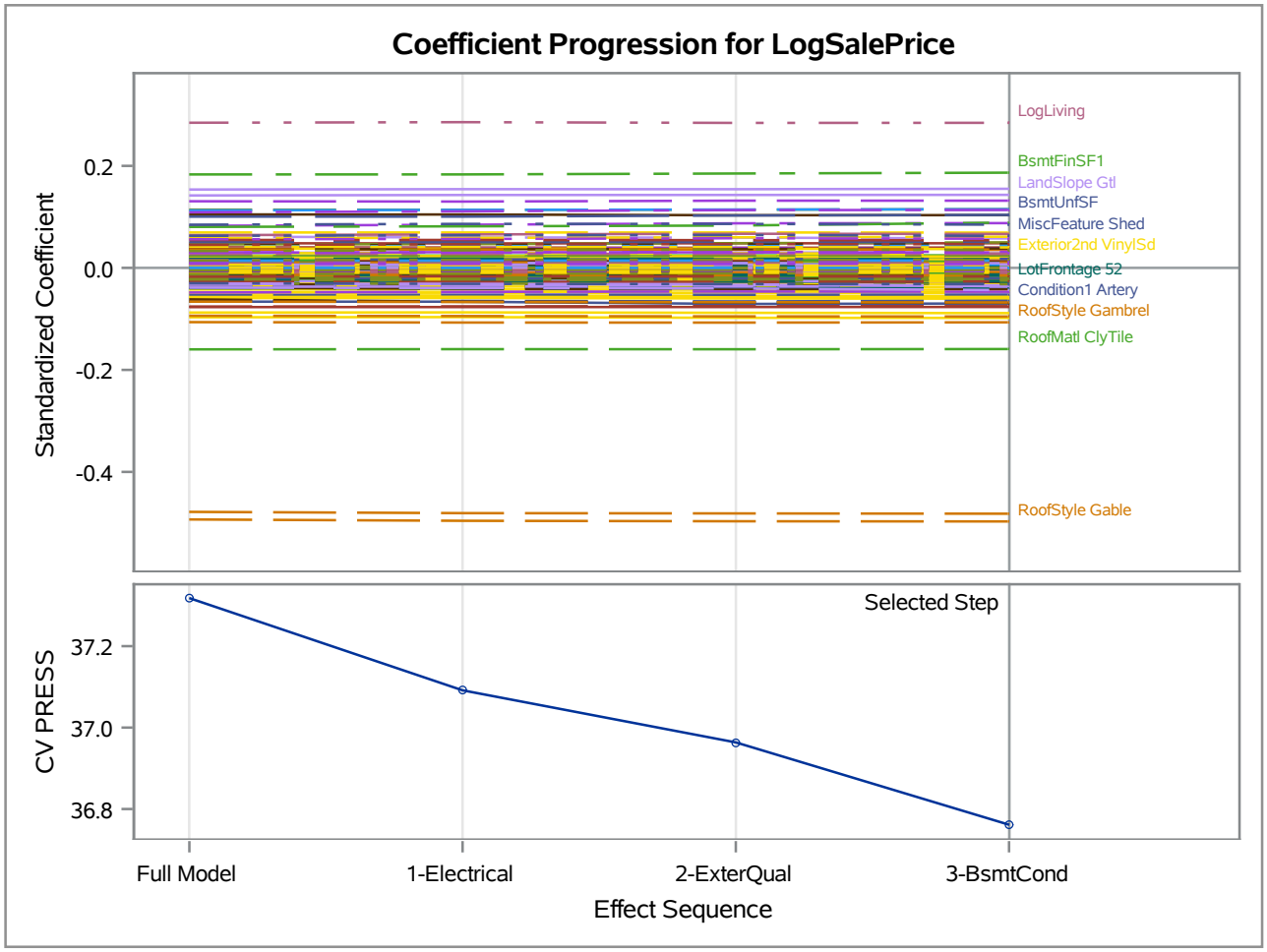
The GLMSELECT Procedure

Backward Selection Summary							
Step	Effect Removed	Number Effects In	Number Parms In	Adjusted R-Square	ASE	Test ASE	CV PRESS
0		81	329	0.9386	0.0067	.	37.3182
	Living	80	329	0.9386	0.0067	.	37.3182
	TotalBsmtSF	79	329	0.9386	0.0067	.	37.3182
1	Electrical	78	325	0.9388	0.0067	.	37.0915
2	ExterQual	77	322	0.9389	0.0068	.	36.9635
3	BsmtCond	76	319	0.9390*	0.0068	.	36.7612*
* Optimal Value of Criterion							

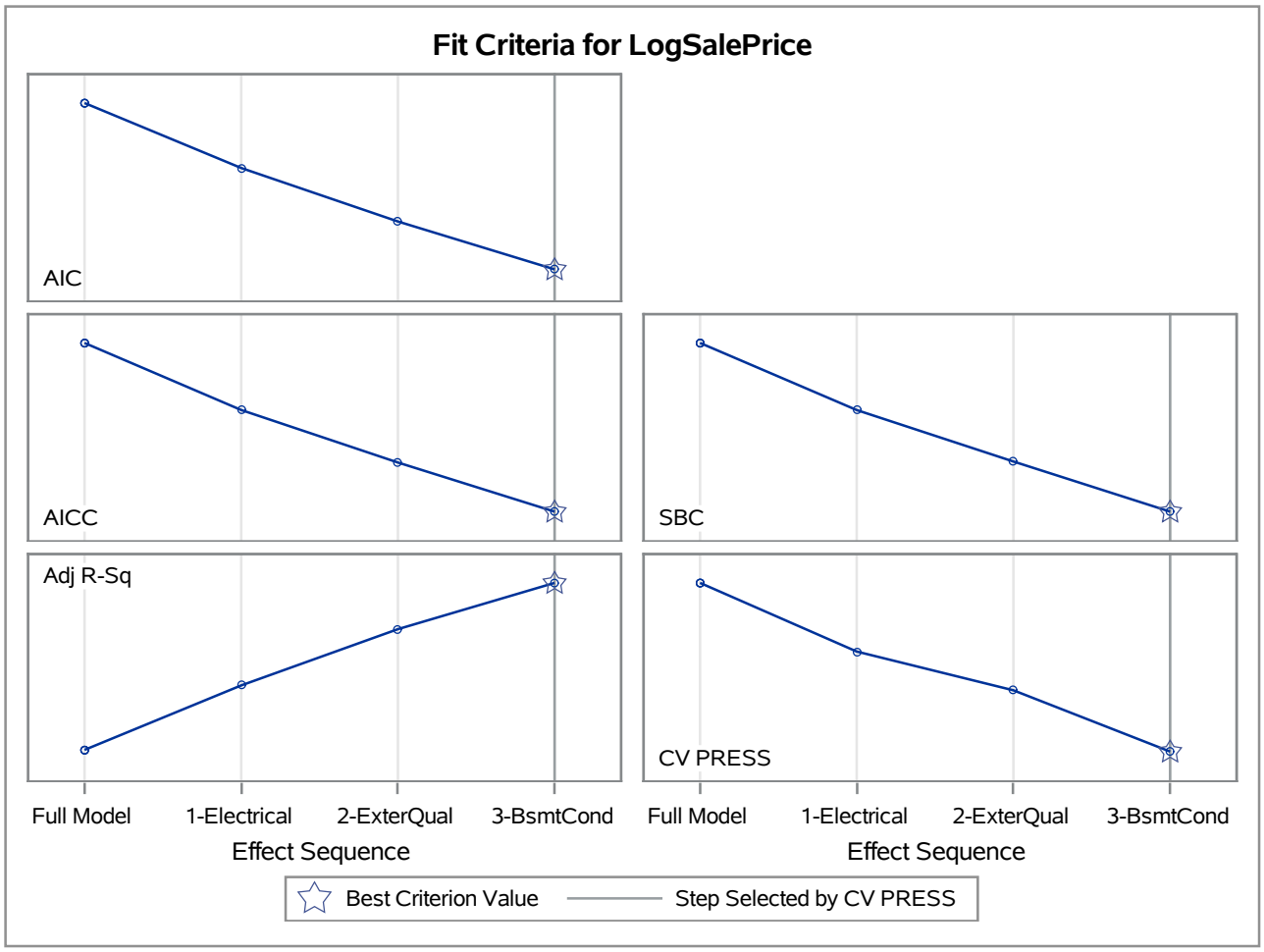
Note: Effects dropped at step 0 are redundant.

Selection stopped at a local minimum of the cross validation PRESS.

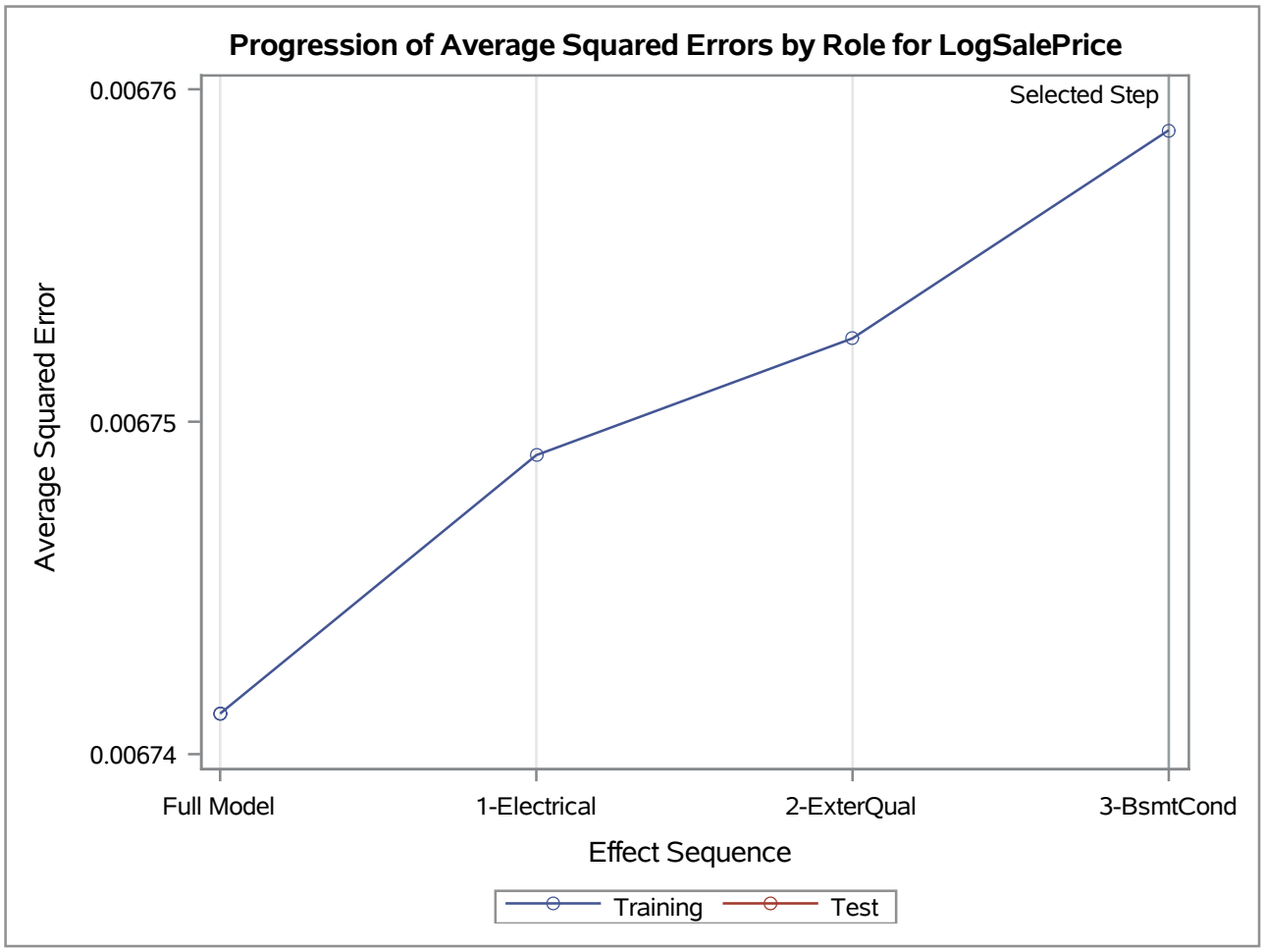
Stop Details				
Candidate For	Effect	Candidate CV PRESS		Compare CV PRESS
Removal	FireplaceQu	36.8497	>	36.7612



The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model, based on Cross Validation, is the model at Step 3.

Effects:	Intercept MSSubClass MSZoning LotFrontage LotArea Street Alley LotShape LandContour Utilities LotConfig LandSlope Neighborhood Condition1 Condition2 BldgType HouseStyle OverallQual OverallCond YearBuilt YearRemodAdd RoofStyle RoofMatl Exterior1st Exterior2nd MasVnrType MasVnrArea ExterCond Foundation BsmtQual BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2 BsmtFinSF2 BsmtUnfSF Heating HeatingQC CentralAir _1stFlrSF _2ndFlrSF LowQualFinSF BsmtFullBath BsmtHalfBath FullBath HalfBath BedroomAbvGr KitchenAbvGr KitchenQual TotRmsAbvGrd Functional Fireplaces FireplaceQu GarageType GarageYrBlt GarageFinish GarageCars GarageArea GarageQual GarageCond PavedDrive WoodDeckSF OpenPorchSF EnclosedPorch _3SsnPorch ScreenPorch PoolArea PoolQC Fence MiscFeature MiscVal MoSold YrSold SaleType SaleCondition LogLiving

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value
Model	318	188.65405	0.59325	67.35
Error	1052	9.26627	0.00881	
Corrected Total	1370	197.92032		

Root MSE	0.09385
Dependent Mean	12.05374
R-Square	0.9532
Adj R-Sq	0.9390
AIC	-4839.76979
AICC	-4644.11265
SBC	-4546.53847
ASE (Train)	0.00676
ASE (Test)	.
CV PRESS	36.76125

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	9.913759	4.662119	2.13
MSSubClass	1	-0.000646	0.000362	-1.79
MSZoning C (a	1	-0.382431	0.045489	-8.41
MSZoning FV	1	0.088213	0.033871	2.60
MSZoning RH	1	0.028862	0.037701	0.77
MSZoning RL	1	0.037941	0.017645	2.15
MSZoning RM	0	0	.	.
LotFrontage 10	1	0.025976	0.018056	1.44
LotFrontage 11	1	0.066631	0.027360	2.44
LotFrontage 12	1	-0.010828	0.027530	-0.39
LotFrontage 13	1	-0.101334	0.044804	-2.26
LotFrontage 14	1	0.068507	0.051202	1.34
LotFrontage 15	1	-0.219091	0.097798	-2.24
LotFrontage 16	1	0.147404	0.094654	1.56
LotFrontage 17	1	0.084912	0.088064	0.96
LotFrontage 18	1	0.142810	0.107765	1.33
LotFrontage 21	1	-0.051731	0.056995	-0.91
LotFrontage 24	1	-0.036691	0.042237	-0.87
LotFrontage 30	1	-0.024079	0.046453	-0.52
LotFrontage 31	1	-0.048948	0.123104	-0.40
LotFrontage 32	1	-0.001287	0.052954	-0.02
LotFrontage 34	1	0.011950	0.037291	0.32
LotFrontage 35	1	0.029959	0.047922	0.63
LotFrontage 36	1	-0.063763	0.047277	-1.35
LotFrontage 37	1	-0.010988	0.045510	-0.24
LotFrontage 38	1	-0.009641	0.107637	-0.09
LotFrontage 39	1	-0.136536	0.100491	-1.36
LotFrontage 40	1	-0.041680	0.034001	-1.23
LotFrontage 41	1	-0.098415	0.044858	-2.19
LotFrontage 42	1	0.005398	0.060636	0.09
LotFrontage 43	1	-0.061518	0.037447	-1.64
LotFrontage 44	1	-0.045289	0.036276	-1.25
LotFrontage 45	1	-0.151025	0.081640	-1.85
LotFrontage 46	1	0.068122	0.098706	0.69

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
LotFrontage 47	1	-0.012861	0.047767	-0.27
LotFrontage 48	1	0.033963	0.041514	0.82
LotFrontage 49	1	0.063603	0.057309	1.11
LotFrontage 50	1	-0.040797	0.018594	-2.19
LotFrontage 51	1	-0.053904	0.032894	-1.64
LotFrontage 52	1	-0.098942	0.030578	-3.24
LotFrontage 53	1	-0.080721	0.039632	-2.04
LotFrontage 54	1	0.092770	0.047160	1.97
LotFrontage 55	1	0.021921	0.033135	0.66
LotFrontage 56	1	0.030241	0.060648	0.50
LotFrontage 57	1	-0.006256	0.030745	-0.20
LotFrontage 58	1	-0.083182	0.044927	-1.85
LotFrontage 59	1	-0.016432	0.029156	-0.56
LotFrontage 60	1	-0.019029	0.013750	-1.38
LotFrontage 61	1	0.058571	0.036953	1.59
LotFrontage 62	1	-0.006457	0.036155	-0.18
LotFrontage 63	1	0.009313	0.028144	0.33
LotFrontage 64	1	0.046026	0.026557	1.73
LotFrontage 65	1	-0.016240	0.018039	-0.90
LotFrontage 66	1	0.024023	0.028934	0.83
LotFrontage 67	1	-0.031021	0.037029	-0.84
LotFrontage 68	1	-0.022291	0.025178	-0.89
LotFrontage 69	1	0.040387	0.034356	1.18
LotFrontage 70	1	0.016562	0.015630	1.06
LotFrontage 71	1	-0.023541	0.031498	-0.75
LotFrontage 72	1	-0.005225	0.026513	-0.20
LotFrontage 73	1	-0.036359	0.025633	-1.42
LotFrontage 74	1	0.008102	0.027682	0.29
LotFrontage 75	1	0.005462	0.017008	0.32
LotFrontage 76	1	-0.011580	0.033432	-0.35
LotFrontage 77	1	0.006460	0.038454	0.17
LotFrontage 78	1	0.013106	0.022571	0.58
LotFrontage 79	1	0.008128	0.025990	0.31
LotFrontage 80	1	0.003927	0.015161	0.26

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
LotFrontage 81	1	0.008816	0.046663	0.19
LotFrontage 82	1	0.007720	0.032139	0.24
LotFrontage 83	1	0.020480	0.045246	0.45
LotFrontage 84	1	0.040110	0.035342	1.13
LotFrontage 85	1	-0.040419	0.019157	-2.11
LotFrontage 86	1	0.016166	0.033163	0.49
LotFrontage 87	1	0.028574	0.047275	0.60
LotFrontage 88	1	0.024463	0.032544	0.75
LotFrontage 89	1	0.013114	0.049345	0.27
LotFrontage 90	1	-0.035431	0.024890	-1.42
LotFrontage 91	1	0.074620	0.041668	1.79
LotFrontage 92	1	-0.022907	0.040031	-0.57
LotFrontage 93	1	-0.000805	0.035926	-0.02
LotFrontage 94	1	-0.056177	0.045022	-1.25
LotFrontage 95	1	-0.087403	0.045635	-1.92
LotFrontage 96	1	0.005663	0.038330	0.15
LotFrontage 97	1	-0.000063445	0.077239	-0.00
LotFrontage 98	1	-0.046519	0.036883	-1.26
LotFrontage 99	1	0.031559	0.059057	0.53
LotFrontage NA	0	0	.	.
LotArea	1	0.000003845	0.000000514	7.48
Street Grvl	1	-0.169695	0.058369	-2.91
Street Pave	0	0	.	.
Alley Gr	1	-0.005946	0.028592	-0.21
Alley NA	1	-0.003983	0.022203	-0.18
Alley Pa	0	0	.	.
LotShape IR1	1	-0.007778	0.007576	-1.03
LotShape IR2	1	0.012145	0.019863	0.61
LotShape IR3	1	-0.034902	0.041799	-0.83
LotShape Reg	0	0	.	.
LandContour Bnk	1	-0.007756	0.017117	-0.45
LandContour HLS	1	0.014678	0.018711	0.78
LandContour Low	1	-0.040550	0.025104	-1.62
LandContour Lvl	0	0	.	.

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Utilities AllPub	1	0.314573	0.110243	2.85
Utilities NoSeWa	0	0	.	.
LotConfig Corner	1	0.011593	0.008060	1.44
LotConfig CulDSac	1	0.037404	0.013669	2.74
LotConfig FR2	1	-0.042950	0.017071	-2.52
LotConfig FR3	1	-0.077092	0.054952	-1.40
LotConfig Inside	0	0	.	.
LandSlope Gtl	1	0.242309	0.049067	4.94
LandSlope Mod	1	0.285693	0.049063	5.82
LandSlope Sev	0	0	.	.
Neighborhood Blmngtn	1	-0.008369	0.052784	-0.16
Neighborhood Blueste	1	-0.064241	0.089020	-0.72
Neighborhood BrDale	1	-0.082633	0.063627	-1.30
Neighborhood BrkSide	1	0.005575	0.043881	0.13
Neighborhood ClearCr	1	-0.053690	0.043045	-1.25
Neighborhood CollgCr	1	-0.071157	0.037446	-1.90
Neighborhood Crawfor	1	0.045324	0.040267	1.13
Neighborhood Edwards	1	-0.145575	0.038522	-3.78
Neighborhood Gilbert	1	-0.061299	0.038986	-1.57
Neighborhood IDOTRR	1	-0.042468	0.049016	-0.87
Neighborhood MeadowV	1	-0.224125	0.058042	-3.86
Neighborhood Mitchel	1	-0.092380	0.039309	-2.35
Neighborhood NAmes	1	-0.101786	0.036560	-2.78
Neighborhood NPkVill	1	-0.008111	0.065336	-0.12
Neighborhood NWAmes	1	-0.102271	0.037162	-2.75
Neighborhood NoRidge	1	0.019315	0.041617	0.46
Neighborhood NridgHt	1	0.028078	0.040360	0.70
Neighborhood OldTown	1	-0.068986	0.043806	-1.57
Neighborhood SWISU	1	-0.045470	0.047114	-0.97
Neighborhood Sawyer	1	-0.083943	0.037615	-2.23
Neighborhood SawyerW	1	-0.051223	0.038303	-1.34
Neighborhood Somerst	1	-0.050985	0.044485	-1.15
Neighborhood StoneBr	1	0.104706	0.043799	2.39
Neighborhood Timber	1	-0.039348	0.040608	-0.97

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Neighborhood Veenker	0	0	.	.
Condition1 Artery	1	-0.139033	0.056569	-2.46
Condition1 Feedr	1	-0.090139	0.054492	-1.65
Condition1 Norm	1	-0.039400	0.052658	-0.75
Condition1 PosA	1	-0.050202	0.066895	-0.75
Condition1 PosN	1	-0.019804	0.058452	-0.34
Condition1 RRAe	1	-0.166835	0.063791	-2.62
Condition1 RRAn	1	-0.059112	0.055279	-1.07
Condition1 RRNe	1	-0.114023	0.089284	-1.28
Condition1 RRNn	0	0	.	.
Condition2 Artery	1	-0.046516	0.122561	-0.38
Condition2 Feedr	1	-0.043669	0.099557	-0.44
Condition2 Norm	1	0.025580	0.081358	0.31
Condition2 PosA	1	0.202924	0.180625	1.12
Condition2 PosN	1	-0.747472	0.115377	-6.48
Condition2 RRAe	1	-0.275127	0.306653	-0.90
Condition2 RRAn	1	-0.029576	0.127783	-0.23
Condition2 RRNn	0	0	.	.
BldgType 1Fam	1	-0.024807	0.040050	-0.62
BldgType 2fmCon	1	0.018868	0.037883	0.50
BldgType Duplex	1	-0.060158	0.043740	-1.38
BldgType Twnhs	1	-0.036377	0.028616	-1.27
BldgType TwnhsE	0	0	.	.
HouseStyle 1.5Fin	1	-0.044529	0.025051	-1.78
HouseStyle 1.5Unf	1	-0.012658	0.043893	-0.29
HouseStyle 1Story	1	-0.032193	0.026437	-1.22
HouseStyle 2.5Fin	1	-0.123940	0.069213	-1.79
HouseStyle 2.5Unf	1	-0.000457	0.048708	-0.01
HouseStyle 2Story	1	-0.056352	0.023797	-2.37
HouseStyle SFoyer	1	0.006376	0.024522	0.26
HouseStyle SLvl	0	0	.	.
OverallQual	1	0.037252	0.004564	8.16
OverallCond	1	0.040443	0.003899	10.37
YearBuilt	1	0.001488	0.000376	3.96

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	**DF**	**Estimate**	**Standard Error**	**t Value**
YearRemodAdd	1	0.000378	0.000253	1.49
RoofStyle Flat	1	-0.389039	0.145639	-2.67
RoofStyle Gable	1	-0.452615	0.128238	-3.53
RoofStyle Gambrel	1	-0.476599	0.132974	-3.58
RoofStyle Hip	1	-0.455473	0.128326	-3.55
RoofStyle Mansard	1	-0.389940	0.127561	-3.06
RoofStyle Shed	0	0	.	.
RoofMatl ClyTile	1	-2.239601	0.265266	-8.44
RoofMatl CompShg	1	-0.072968	0.049594	-1.47
RoofMatl Membran	1	0.319782	0.149075	2.15
RoofMatl Metal	1	0.213524	0.142672	1.50
RoofMatl Roll	1	0.112355	0.127532	0.88
RoofMatl Tar&Grv	1	-0.072165	0.090416	-0.80
RoofMatl WdShake	1	-0.103306	0.080891	-1.28
RoofMatl WdShngl	0	0	.	.
Exterior1st AsbShng	1	-0.012718	0.062662	-0.20
Exterior1st BrkComm	1	-0.263837	0.119212	-2.21
Exterior1st BrkFace	1	0.061166	0.035898	1.70
Exterior1st CBlock	1	-0.093520	0.107887	-0.87
Exterior1st CemntBd	1	-0.095122	0.070707	-1.35
Exterior1st HdBoard	1	-0.015827	0.033269	-0.48
Exterior1st ImStucc	1	-0.037556	0.122025	-0.31
Exterior1st MetalSd	1	0.061526	0.049271	1.25
Exterior1st Plywood	1	-0.019515	0.033888	-0.58
Exterior1st Stone	1	0.014202	0.096590	0.15
Exterior1st Stucco	1	0.020119	0.043272	0.46
Exterior1st VinylSd	1	-0.007357	0.042149	-0.17
Exterior1st Wd Sdng	1	-0.040767	0.031709	-1.29
Exterior1st WdShing	0	0	.	.
Exterior2nd AsbShng	1	-0.050597	0.057680	-0.88
Exterior2nd AsphShn	1	0.012151	0.088540	0.14
Exterior2nd Brk Cmn	1	0.004666	0.084279	0.06
Exterior2nd BrkFace	1	-0.034578	0.038561	-0.90
Exterior2nd CBlock	0	0	.	.

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Exterior2nd CmentBd	1	0.138938	0.068726	2.02
Exterior2nd HdBoard	1	-0.005348	0.031383	-0.17
Exterior2nd ImStucc	1	0.004347	0.045659	0.10
Exterior2nd MetalSd	1	-0.049715	0.047569	-1.05
Exterior2nd Other	1	-0.148993	0.112648	-1.32
Exterior2nd Plywood	1	-0.001250	0.030304	-0.04
Exterior2nd Stone	1	0.029092	0.064660	0.45
Exterior2nd Stucco	1	-0.002063	0.040671	-0.05
Exterior2nd VinylSd	1	0.018560	0.038730	0.48
Exterior2nd Wd Sdng	1	0.031026	0.027313	1.14
Exterior2nd Wd Shng	0	0	.	.
MasVnrType BrkCmn	1	-0.074011	0.030955	-2.39
MasVnrType BrkFace	1	-0.008428	0.012825	-0.66
MasVnrType None	1	-0.010055	0.013916	-0.72
MasVnrType Stone	0	0	.	.
MasVnrArea	1	0.000030239	0.000025334	1.19
ExterCond Ex	1	0.025377	0.106369	0.24
ExterCond Fa	1	-0.036150	0.028584	-1.26
ExterCond Gd	1	-0.034790	0.010294	-3.38
ExterCond TA	0	0	.	.
Foundation BrkTil	1	0.050299	0.070675	0.71
Foundation CBlock	1	0.067366	0.069329	0.97
Foundation PConc	1	0.086557	0.068972	1.25
Foundation Slab	1	0.075302	0.082054	0.92
Foundation Stone	1	0.114031	0.085283	1.34
Foundation Wood	0	0	.	.
BsmtQual Ex	1	0.032154	0.018133	1.77
BsmtQual Fa	1	0.006763	0.021429	0.32
BsmtQual Gd	1	0.000390	0.011330	0.03
BsmtQual NA	1	0.130116	0.154722	0.84
BsmtQual TA	0	0	.	.
BsmtExposure Av	1	0.013166	0.009646	1.36
BsmtExposure Gd	1	0.036174	0.013549	2.67
BsmtExposure Mn	1	0.014672	0.011005	1.33

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
BsmtExposure NA	1	-0.025753	0.096634	-0.27
BsmtExposure No	0	0	.	.
BsmtFinType1 ALQ	1	0.009870	0.013035	0.76
BsmtFinType1 BLQ	1	0.015491	0.013937	1.11
BsmtFinType1 GLQ	1	0.029508	0.012080	2.44
BsmtFinType1 LwQ	1	-0.008468	0.016920	-0.50
BsmtFinType1 NA	0	0	.	.
BsmtFinType1 Rec	1	0.007206	0.014259	0.51
BsmtFinType1 Unf	0	0	.	.
BsmtFinSF1	1	0.000155	0.000024479	6.31
BsmtFinType2 ALQ	1	0.013042	0.032142	0.41
BsmtFinType2 BLQ	1	-0.030794	0.022029	-1.40
BsmtFinType2 GLQ	1	0.017969	0.041152	0.44
BsmtFinType2 LwQ	1	-0.020036	0.020047	-1.00
BsmtFinType2 NA	1	-0.087412	0.105546	-0.83
BsmtFinType2 Rec	1	-0.008769	0.020818	-0.42
BsmtFinType2 Unf	0	0	.	.
BsmtFinSF2	1	0.000141	0.000039918	3.53
BsmtUnfSF	1	0.000088902	0.000022783	3.90
Heating Floor	1	-0.212578	0.126755	-1.68
Heating GasA	1	-0.072937	0.063319	-1.15
Heating GasW	1	0.010899	0.068017	0.16
Heating Grav	1	-0.084424	0.094876	-0.89
Heating OthW	1	-0.036310	0.131018	-0.28
Heating Wall	0	0	.	.
HeatingQC Ex	1	0.029015	0.009220	3.15
HeatingQC Fa	1	0.025775	0.020457	1.26
HeatingQC Gd	1	0.007794	0.009724	0.80
HeatingQC Po	1	-0.014644	0.114439	-0.13
HeatingQC TA	0	0	.	.
CentralAir N	1	-0.081111	0.018981	-4.27
CentralAir Y	0	0	.	.
_1stFlrSF	1	0.000006619	0.000043081	0.15
_2ndFlrSF	1	0.000057589	0.000035354	1.63

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	**DF**	**Estimate**	**Standard Error**	**t Value**
LowQualFinSF	1	-0.000074991	0.000109	-0.69
BsmtFullBath	1	0.014950	0.008863	1.69
BsmtHalfBath	1	0.014815	0.013418	1.10
FullBath	1	0.013476	0.010042	1.34
HalfBath	1	0.013468	0.009464	1.42
BedroomAbvGr	1	-0.001655	0.006336	-0.26
KitchenAbvGr	1	-0.059061	0.030901	-1.91
KitchenQual Ex	1	0.069165	0.017061	4.05
KitchenQual Fa	1	0.005450	0.024132	0.23
KitchenQual Gd	1	0.001622	0.009079	0.18
KitchenQual TA	0	0	.	.
TotRmsAbvGrd	1	0.007602	0.004273	1.78
Functional Maj1	1	-0.061833	0.036702	-1.68
Functional Maj2	1	-0.224888	0.059449	-3.78
Functional Min1	1	-0.045343	0.020768	-2.18
Functional Min2	1	-0.040426	0.020770	-1.95
Functional Mod	1	-0.097513	0.033731	-2.89
Functional Sev	1	-0.314016	0.123582	-2.54
Functional Typ	0	0	.	.
Fireplaces	1	0.025482	0.011348	2.25
FireplaceQu Ex	1	-0.033199	0.024915	-1.33
FireplaceQu Fa	1	-0.017116	0.019881	-0.86
FireplaceQu Gd	1	0.000476	0.009765	0.05
FireplaceQu NA	1	0.005587	0.015905	0.35
FireplaceQu Po	1	-0.006000	0.026999	-0.22
FireplaceQu TA	0	0	.	.
GarageType 2Types	1	-0.084711	0.048561	-1.74
GarageType Attchd	1	0.002355	0.010321	0.23
GarageType Basment	1	0.033824	0.030260	1.12
GarageType BuiltIn	1	-0.000968	0.017838	-0.05
GarageType CarPort	1	0.022276	0.042204	0.53
GarageType Detchd	0	0	.	.
GarageYrBlt	1	0.000064217	0.000276	0.23
GarageFinish Fin	1	0.006004	0.010437	0.58

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	**DF**	**Estimate**	**Standard Error**	**t Value**
GarageFinish RFn	1	0.005176	0.009332	0.55
GarageFinish Unf	0	0	.	.
GarageCars	1	0.024170	0.010038	2.41
GarageArea	1	0.000104	0.000034532	3.00
GarageQual Ex	1	0.440333	0.132915	3.31
GarageQual Fa	1	-0.055123	0.021589	-2.55
GarageQual Gd	1	0.045925	0.033109	1.39
GarageQual Po	1	-0.136244	0.088024	-1.55
GarageQual TA	0	0	.	.
GarageCond Ex	1	-0.394408	0.151629	-2.60
GarageCond Fa	1	-0.023088	0.023767	-0.97
GarageCond Gd	1	-0.002488	0.039191	-0.06
GarageCond Po	1	0.092257	0.062121	1.49
GarageCond TA	0	0	.	.
PavedDrive N	1	-0.005222	0.017001	-0.31
PavedDrive P	1	-0.030398	0.022217	-1.37
PavedDrive Y	0	0	.	.
WoodDeckSF	1	0.000090323	0.000025917	3.49
OpenPorchSF	1	0.000072325	0.000053784	1.34
EnclosedPorch	1	0.000088614	0.000057064	1.55
_3SsnPorch	1	0.000111	0.000099782	1.11
ScreenPorch	1	0.000239	0.000054329	4.41
PoolArea	1	0.000814	0.001005	0.81
PoolQC Ex	1	-0.347179	0.546773	-0.63
PoolQC Fa	1	-0.433595	0.661970	-0.66
PoolQC Gd	1	-0.293549	0.652185	-0.45
PoolQC NA	0	0	.	.
Fence GdPrv	1	-0.010823	0.016000	-0.68
Fence GdWo	1	-0.019440	0.015679	-1.24
Fence MnPrv	1	0.007011	0.010129	0.69
Fence MnWw	1	-0.030825	0.032231	-0.96
Fence NA	0	0	.	.
MiscFeature Gar2	1	-0.316018	0.481622	-0.66
MiscFeature NA	1	0.170120	0.208971	0.81

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	**DF**	**Estimate**	**Standard Error**	**t Value**
MiscFeature Othr	1	0.213243	0.231356	0.92
MiscFeature Shed	1	0.131167	0.204080	0.64
MiscFeature TenC	0	0	.	.
MiscVal	1	0.000035114	0.000031898	1.10
MoSold	1	-0.000777	0.001089	-0.71
YrSold	1	-0.001732	0.002296	-0.75
SaleType COD	1	0.016975	0.017937	0.95
SaleType CWD	1	0.104876	0.051334	2.04
SaleType Con	1	0.091369	0.076666	1.19
SaleType ConLD	1	0.158324	0.043598	3.63
SaleType ConLI	1	-0.046152	0.055555	-0.83
SaleType ConLw	1	-0.016934	0.052875	-0.32
SaleType New	1	0.077949	0.064605	1.21
SaleType Oth	1	0.211076	0.105834	1.99
SaleType WD	0	0	.	.
SaleCondition Abnorml	1	-0.017824	0.064628	-0.28
SaleCondition AdjLand	1	0.228712	0.120934	1.89
SaleCondition Alloca	1	-0.014499	0.076256	-0.19
SaleCondition Family	1	-0.011090	0.067943	-0.16
SaleCondition Normal	1	0.035064	0.063866	0.55
SaleCondition Partial	0	0	.	.
LogLiving	1	0.334777	0.057545	5.82

The GLMSELECT Procedure

Data Set	WORK.COMBINED
Dependent Variable	LogSalePrice
Selection Method	Stepwise
Select Criterion	Adj R-Sq
Stop Criterion	Cross Validation
Cross Validation Method	Random
Cross Validation Fold	5
Effect Hierarchy Enforced	None
Random Number Seed	668071202

Number of Observations Read	2919
Number of Observations Used	1371
Number of Observations Used for Training	1371
Number of Observations Used for Testing	0

Class Level Information		
Class	**Levels**	**Values**
Alley	3	Gr NA Pa
BldgType	5	1Fam 2fmCon Duplex Twnhs TwnhsE
BsmtCond	5	Fa Gd NA Po TA
BsmtExposure	5	Av Gd Mn NA No
BsmtFinType1	7	ALQ BLQ GLQ LwQ NA Rec Unf
BsmtFinType2	7	ALQ BLQ GLQ LwQ NA Rec Unf
BsmtQual	5	Ex Fa Gd NA TA
CentralAir	2	N Y
Condition1	9	Artery Feedr Norm PosA PosN RRAe RRAn RRNe RRNn
Condition2	8	Artery Feedr Norm PosA PosN RRAe RRAn RRNn
Electrical	6	FuseA FuseF FuseP Mix NA SBrkr
ExterCond	5	Ex Fa Gd Po TA
ExterQual	4	Ex Fa Gd TA
Exterior1st	14	AsbShng BrkComm BrkFace CBlock CemntBd HdBoard ImStucc MetalSd Plywood Stone Stucco VinylSd Wd Sdng WdShing
Exterior2nd	16	AsbShng AsphShn Brk Cmn BrkFace CBlock CmentBd HdBoard ImStucc MetalSd Other Plywood Stone Stucco VinylSd Wd Sdng Wd Shng
Fence	5	GdPrv GdWo MnPrv MnWw NA
FireplaceQu	6	Ex Fa Gd NA Po TA
Foundation	6	BrkTil CBlock PConc Slab Stone Wood
Functional	8	Maj1 Maj2 Min1 Min2 Mod NA Sev Typ
GarageCond	5	Ex Fa Gd Po TA

The GLMSELECT Procedure

Class Level Information		
Class	**Levels**	**Values**
GarageFinish	3	Fin RFn Unf
GarageQual	5	Ex Fa Gd Po TA
GarageType	6	2Types Attchd Basment BuiltIn CarPort Detchd
Heating	6	Floor GasA GasW Grav OthW Wall
HeatingQC	5	Ex Fa Gd Po TA
HouseStyle	8	1.5Fin 1.5Unf 1Story 2.5Fin 2.5Unf 2Story SFoyer SLvl
KitchenQual	5	Ex Fa Gd NA TA
LandContour	4	Bnk HLS Low Lvl
LandSlope	3	Gtl Mod Sev
LotConfig	5	Corner CulDSac FR2 FR3 Inside
LotFrontage	88	10 11 12 13 14 15 16 17 18 19 20 21 22 24 25 26 28 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 ...
LotShape	4	IR1 IR2 IR3 Reg
MSZoning	6	C (a FV NA RH RL RM
MasVnrType	5	BrkCmn BrkFace NA None Stone
MiscFeature	5	Gar2 NA Othr Shed TenC
Neighborhood	25	Blmngtn Blueste BrDale BrkSide ClearCr CollgCr Crawfor Edwards Gilbert IDOTRR MeadowV Mitchel NAmes NPkVill NWAmes NoRidge NridgHt OldTown SWISU Sawyer SawyerW Somerst StoneBr Timber Veenker
PavedDrive	3	N P Y
PoolQC	4	Ex Fa Gd NA
RoofMatl	8	ClyTile CompShg Membran Metal Roll Tar&Grv WdShake WdShngl
RoofStyle	6	Flat Gable Gambrel Hip Mansard Shed
SaleCondition	6	Abnorml AdjLand Alloca Family Normal Partial
SaleType	10	COD CWD Con ConLD ConLI ConLw NA New Oth WD
Street	2	Grvl Pave
Utilities	3	AllPub NA NoSeWa

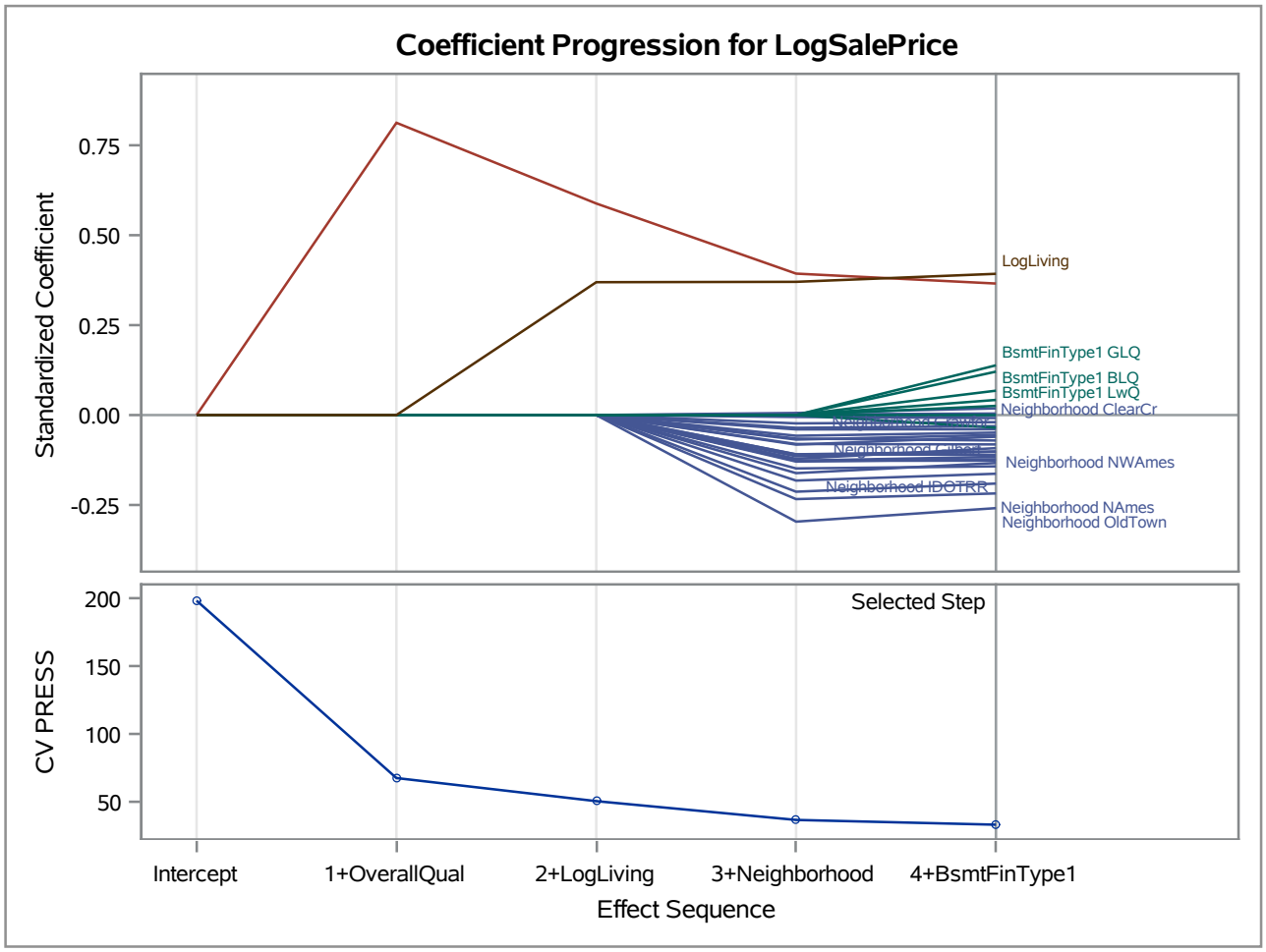
Dimensions	
Number of Effects	81
Number of Parameters	379

The GLMSELECT Procedure

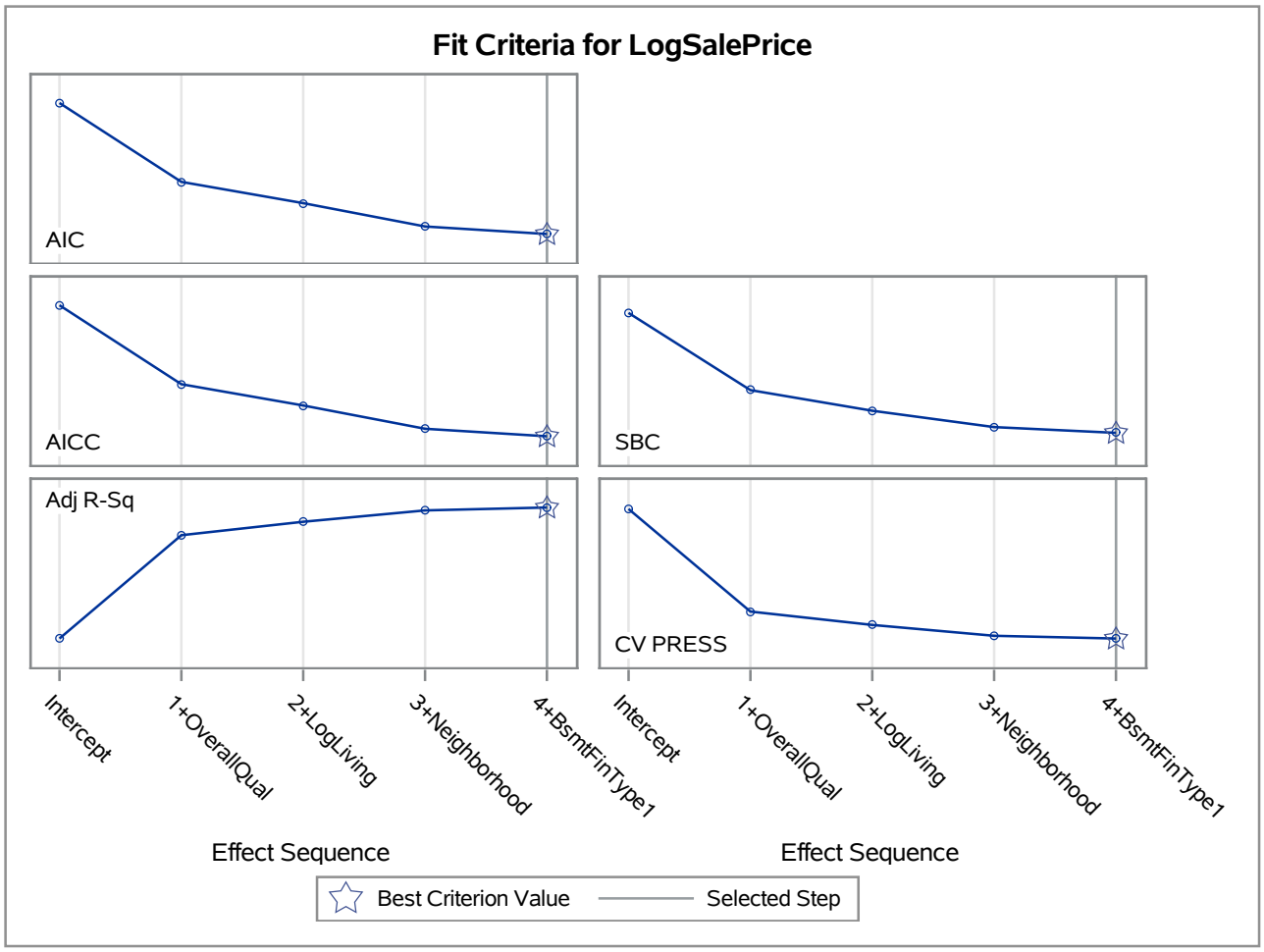
Stepwise Selection Summary								
Step	Effect Entered	Effect Removed	Number Effects In	Number Parms In	Adjusted R-Square	ASE	Test ASE	CV PRESS
0	Intercept		1	1	0.0000	0.1444	.	198.1788
1	OverallQual		2	2	0.6601	0.0490	.	67.4840
2	LogLiving		3	3	0.7460	0.0366	.	50.4548
3	Neighborhood		4	27	0.8185	0.0257	.	36.6234
4	BsmtFinType1		5	33	0.8370*	0.0230	.	33.1198*
* Optimal Value of Criterion								

Selection stopped at a local minimum of the cross validation PRESS.

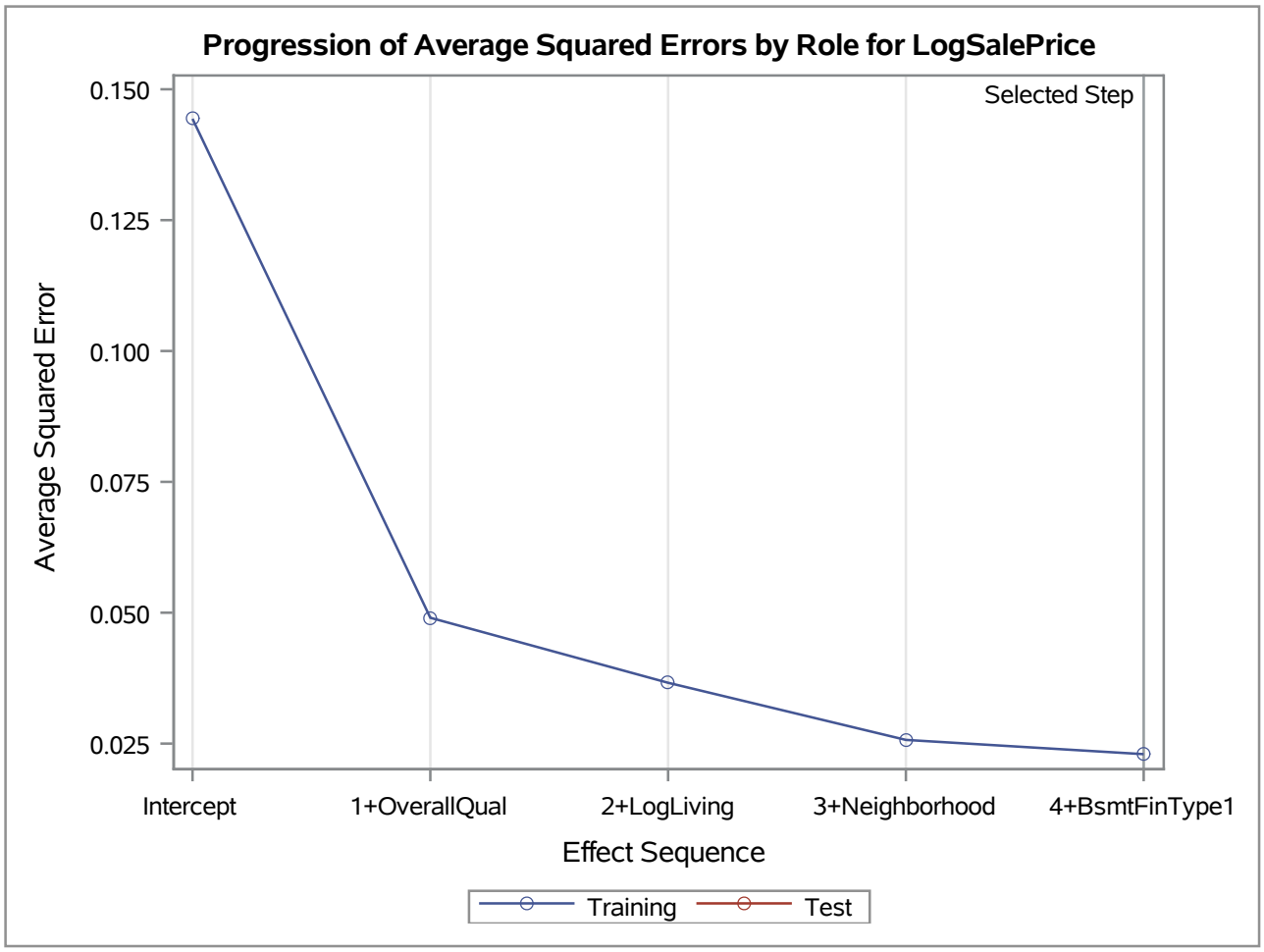
Stop Details				
Candidate For	Effect	Candidate CV PRESS		Compare CV PRESS
Entry	LotFrontage	36.3297	>	33.1198
Removal	BsmtFinType1	36.6234	>	33.1198



The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model is the model at the last step (Step 4).

Effects:	Intercept Neighborhood OverallQual BsmtFinType1 LogLiving

Analysis of Variance				
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**
Model	32	166.41511	5.20047	220.86
Error	1338	31.50522	0.02355	
Corrected Total	1370	197.92032		

Root MSE	0.15345
Dependent Mean	12.05374
R-Square	0.8408
Adj R-Sq	0.8370
AIC	-3733.97842
AICC	-3732.19698
SBC	-4934.60966
ASE (Train)	0.02298
ASE (Test)	.
CV PRESS	33.11983

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	DF	Estimate	Standard Error	t Value
Intercept	1	10.299776	0.064584	159.48
Neighborhood Blmngtn	1	-0.167477	0.059781	-2.80
Neighborhood Blueste	1	-0.393421	0.118184	-3.33
Neighborhood BrDale	1	-0.521026	0.061280	-8.50
Neighborhood BrkSide	1	-0.275486	0.052054	-5.29
Neighborhood ClearCr	1	-0.054117	0.055311	-0.98
Neighborhood CollgCr	1	-0.124410	0.048343	-2.57
Neighborhood Crawfor	1	-0.112379	0.051473	-2.18
Neighborhood Edwards	1	-0.312443	0.050098	-6.24
Neighborhood Gilbert	1	-0.150920	0.049939	-3.02
Neighborhood IDOTRR	1	-0.430830	0.055413	-7.77
Neighborhood MeadowV	1	-0.450159	0.064994	-6.93
Neighborhood Mitchel	1	-0.176073	0.052113	-3.38
Neighborhood NAmes	1	-0.226014	0.048017	-4.71
Neighborhood NPkVill	1	-0.332628	0.069351	-4.80
Neighborhood NWAmes	1	-0.214491	0.049860	-4.30
Neighborhood NoRidge	1	-0.018353	0.053098	-0.35
Neighborhood NridgHt	1	0.030622	0.050276	0.61
Neighborhood OldTown	1	-0.376363	0.049512	-7.60
Neighborhood SWISU	1	-0.368107	0.058230	-6.32
Neighborhood Sawyer	1	-0.210800	0.050459	-4.18
Neighborhood SawyerW	1	-0.193573	0.050856	-3.81
Neighborhood Somerst	1	-0.096258	0.049721	-1.94
Neighborhood StoneBr	1	0.011962	0.056162	0.21
Neighborhood Timber	1	-0.071450	0.052735	-1.35
Neighborhood Veenker	0	0	.	.
OverallQual	1	0.103396	0.005353	19.31
BsmtFinType1 ALQ	1	0.127562	0.014584	8.75
BsmtFinType1 BLQ	1	0.084710	0.016428	5.16
BsmtFinType1 GLQ	1	0.115267	0.011952	9.64
BsmtFinType1 LwQ	1	0.044263	0.020724	2.14
BsmtFinType1 NA	1	-0.091237	0.030762	-2.97
BsmtFinType1 Rec	1	0.055506	0.017024	3.26

The GLMSELECT Procedure
Selected Model

Parameter Estimates				
Parameter	**DF**	**Estimate**	**Standard Error**	**t Value**
BsmtFinType1 Unf	0	0	.	.
LogLiving	1	0.462127	0.017529	26.36

The GLMSELECT Procedure

Data Set	WORK.COMBINED
Dependent Variable	LogSalePrice
Selection Method	Stepwise
Select Criterion	SBC
Stop Criterion	Cross Validation
Choose Criterion	Adj R-Sq
Cross Validation Method	Random
Cross Validation Fold	5
Effect Hierarchy Enforced	None
Random Number Seed	674875012

Number of Observations Read	2919
Number of Observations Used	1460
Number of Observations Used for Training	1460
Number of Observations Used for Testing	0

Class Level Information		
Class	**Levels**	**Values**
Neighborhood	25	Blmngtn Blueste BrDale BrkSide ClearCr CollgCr Crawfor Edwards Gilbert IDOTRR MeadowV Mitchel NAmes NPkVill NWAmes NoRidge NridgHt OldTown SWISU Sawyer SawyerW Somerst StoneBr Timber Veenker
MSZoning	6	C (a FV NA RH RL RM
HouseStyle	8	1.5Fin 1.5Unf 1Story 2.5Fin 2.5Unf 2Story SFoyer SLvl
CentralAir	2	N Y
GarageFinish	4	Fin NA RFn Unf
SaleCondition	6	Abnorml AdjLand Alloca Family Normal Partial
BsmtQual	5	Ex Fa Gd NA TA
ExterQual	4	Ex Fa Gd TA
KitchenQual	5	Ex Fa Gd NA TA
LotFrontage	88	10 11 12 13 14 15 16 17 18 19 20 21 22 24 25 26 28 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 ...
BsmtFinType1	7	ALQ BLQ GLQ LwQ NA Rec Unf

Dimensions	
Number of Effects	24
Number of Parameters	195

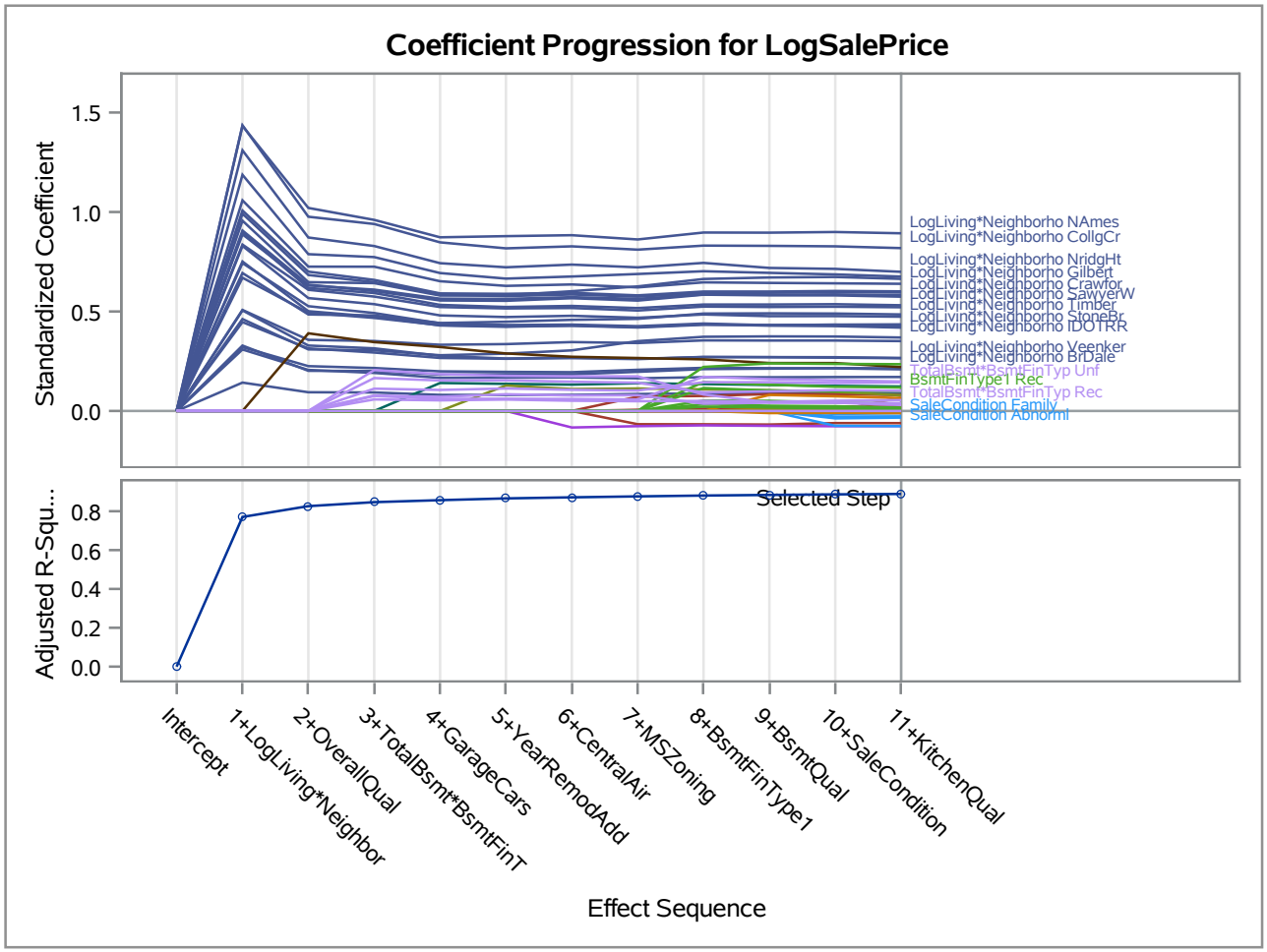
The GLMSELECT Procedure

Stepwise Selection Summary

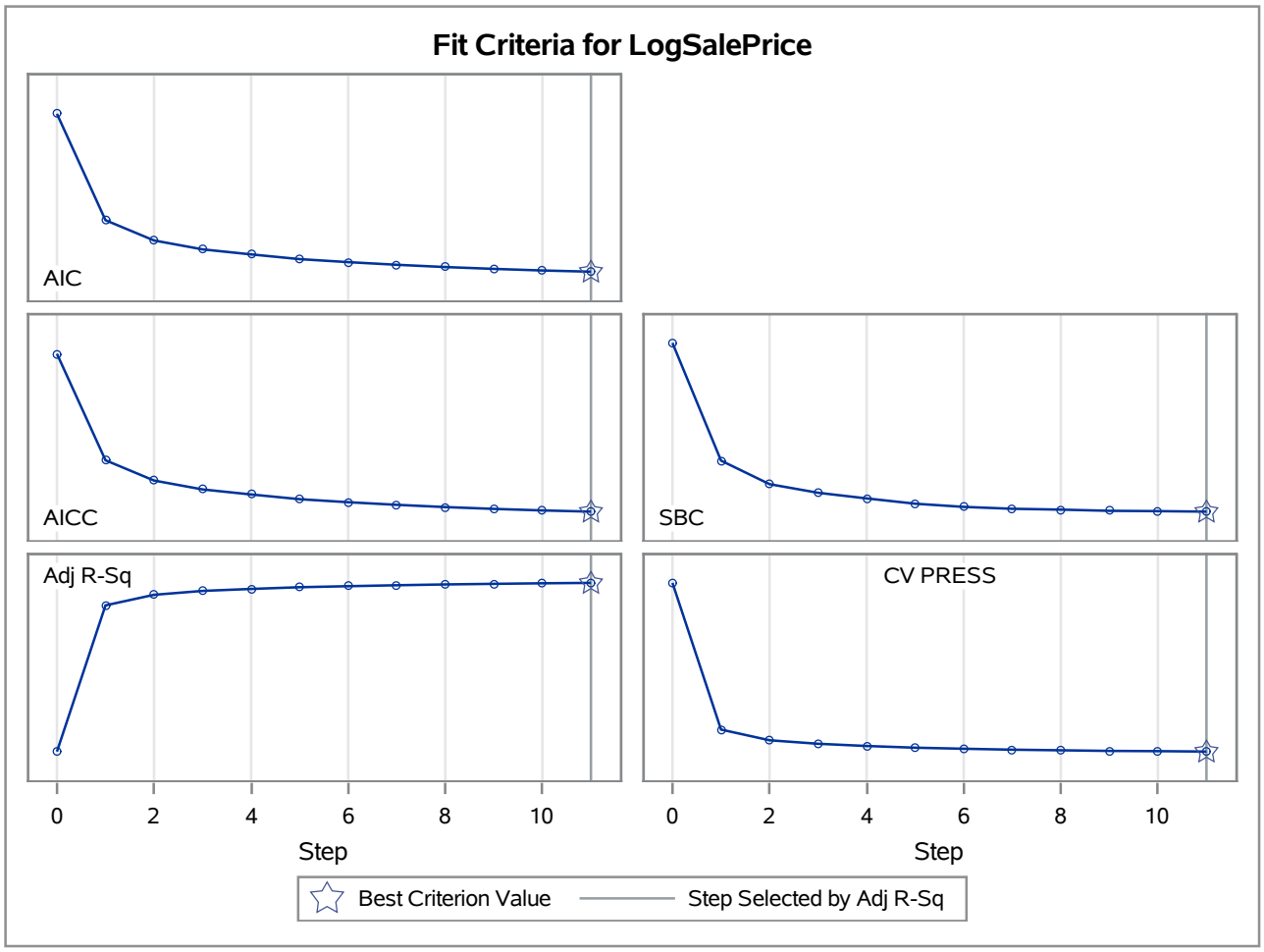
Step	Effect Entered	Effect Removed	Number Effects In	Number Parms In	Adjusted R-Square	SBC	ASE	Test ASE	CV PRESS
0	Intercept		1	1	0.0000	-2673.2872	0.1595	.	233.5270
1	LogLiving*Neighborho		2	26	0.7706	-4665.6267	0.0360	.	54.7910
2	OverallQual		3	27	0.8262	-5065.0473	0.0272	.	41.7634
3	TotalBsmt*BsmtFinTyp		4	33	0.8468	-5211.2080	0.0239	.	37.4704
4	GarageCars		5	34	0.8571	-5306.4092	0.0223	.	34.7571
5	YearRemodAdd		6	35	0.8661	-5395.6863	0.0209	.	32.6878
6	CentralAir		7	36	0.8716	-5450.1284	0.0200	.	31.4147
7	MSZoning		8	40	0.8765	-5482.0517	0.0192	.	30.2689
8	BsmtFinType1		9	46	0.8808	-5495.9686	0.0184	.	29.5402
9	BsmtQual		10	49	0.8839	-5516.6241	0.0179	.	28.7780
10	SaleCondition		11	54	0.8868	-5521.7779	0.0174	.	28.4943
11	KitchenQual		12	57	0.8889*	-5530.2052*	0.0170	.	27.9788*

*** Optimal Value of Criterion**

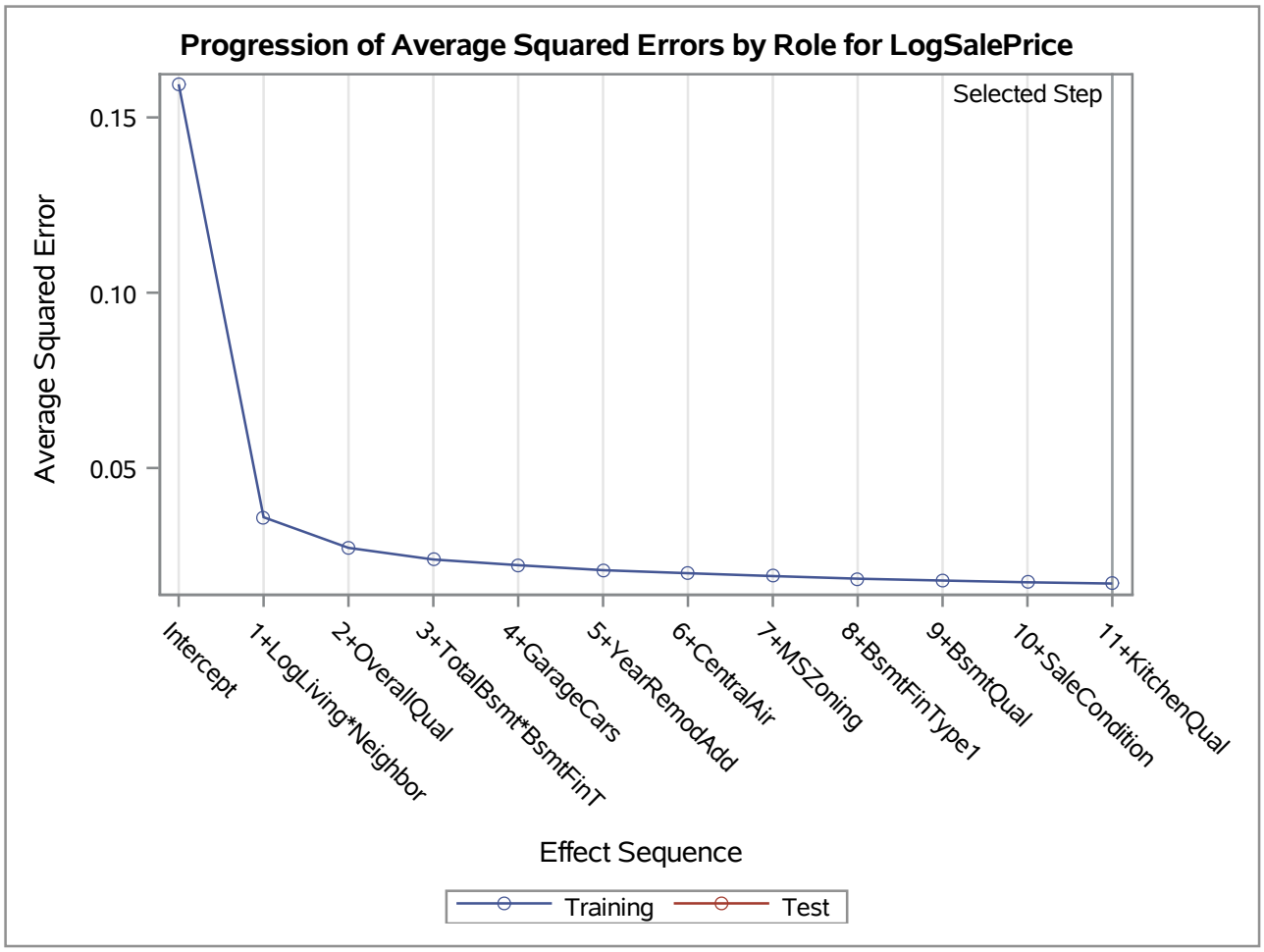
Selection stopped as adding or dropping any effect does not improve the selection criterion.



The GLMSELECT Procedure



The GLMSELECT Procedure



The GLMSELECT Procedure
Selected Model

The selected model, based on Adj R-Sq, is the model at Step 11.

Effects:	Intercept LogLiving*Neighborho MSZoning GarageCars OverallQual CentralAir YearRemodAdd SaleCondition KitchenQual BsmtQual BsmtFinType1 TotalBsmt*BsmtFinTyp

Analysis of Variance				
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**
Model	56	207.92427	3.71293	209.41
Error	1403	24.87639	0.01773	
Corrected Total	1459	232.80066		

Root MSE	0.13316
Dependent Mean	12.02405
R-Square	0.8931
Adj R-Sq	0.8889
AIC	-4369.51814
AICC	-4364.63305
SBC	-5530.20521
ASE (Train)	0.01704
ASE (Test)	.
CV PRESS	27.97884

The GLMSELECT Procedure
Selected Model

Parameter Estimates					
Parameter		DF	Estimate	Standard Error	t Value
Intercept		1	7.206355	0.510206	14.12
LogLiving*Neighborho Blmngtn		1	0.371547	0.021201	17.53
LogLiving*Neighborho Blueste		1	0.363621	0.039503	9.20
LogLiving*Neighborho BrDale		1	0.338173	0.021649	15.62
LogLiving*Neighborho BrkSide		1	0.403687	0.017332	23.29
LogLiving*Neighborho ClearCr		1	0.436121	0.017266	25.26
LogLiving*Neighborho CollgCr		1	0.403196	0.016937	23.81
LogLiving*Neighborho Crawfor		1	0.442645	0.016182	27.35
LogLiving*Neighborho Edwards		1	0.356026	0.016259	21.90
LogLiving*Neighborho Gilbert		1	0.404564	0.016634	24.32
LogLiving*Neighborho IDOTRR		1	0.388008	0.019428	19.97
LogLiving*Neighborho MeadowV		1	0.336578	0.021584	15.59
LogLiving*Neighborho Mitchel		1	0.380387	0.017800	21.37
LogLiving*Neighborho NAmes		1	0.387430	0.016302	23.77
LogLiving*Neighborho NPkVill		1	0.345651	0.024352	14.19
LogLiving*Neighborho NWAmes		1	0.388850	0.016205	23.99
LogLiving*Neighborho NoRidge		1	0.448688	0.016440	27.29
LogLiving*Neighborho NridgHt		1	0.425281	0.017795	23.90
LogLiving*Neighborho OldTown		1	0.373883	0.016091	23.24
LogLiving*Neighborho SWISU		1	0.379256	0.016963	22.36
LogLiving*Neighborho Sawyer		1	0.383149	0.017112	22.39
LogLiving*Neighborho SawyerW		1	0.393410	0.017049	23.08
LogLiving*Neighborho Somerst		1	0.414990	0.020089	20.66
LogLiving*Neighborho StoneBr		1	0.443575	0.019081	23.25
LogLiving*Neighborho Timber		1	0.417192	0.017887	23.32
LogLiving*Neighborho Veenker		1	0.451763	0.022228	20.32
MSZoning	C (a	1	-0.296699	0.048559	-6.11
MSZoning	FV	1	0.046097	0.038221	1.21
MSZoning	RH	1	0.058803	0.040221	1.46
MSZoning	RL	1	0.077851	0.018230	4.27
MSZoning	RM	0	0	.	.
GarageCars		1	0.065653	0.006749	9.73
OverallQual		1	0.063700	0.004969	12.82
CentralAir	N	1	-0.123150	0.016703	-7.37

The GLMSELECT Procedure
Selected Model

Parameter Estimates					
Parameter		DF	Estimate	Standard Error	t Value
CentralAir	Y	0	0	.	.
YearRemodAdd		1	0.001524	0.000257	5.93
SaleCondition	Abnorml	1	-0.120292	0.020298	-5.93
SaleCondition	AdjLand	1	-0.017982	0.070270	-0.26
SaleCondition	Alloca	1	-0.050886	0.042953	-1.18
SaleCondition	Family	1	-0.092940	0.033776	-2.75
SaleCondition	Normal	1	-0.034777	0.014931	-2.33
SaleCondition	Partial	0	0	.	.
KitchenQual	Ex	1	0.107812	0.020213	5.33
KitchenQual	Fa	1	-0.022974	0.023668	-0.97
KitchenQual	Gd	1	0.030981	0.010767	2.88
KitchenQual	TA	0	0	.	.
BsmtQual	Ex	1	0.093792	0.020974	4.47
BsmtQual	Fa	1	-0.027950	0.024661	-1.13
BsmtQual	Gd	1	0.011260	0.012216	0.92
BsmtQual	NA	0	0	.	.
BsmtQual	TA	0	0	.	.
BsmtFinType1	ALQ	1	0.131615	0.035886	3.67
BsmtFinType1	BLQ	1	0.022010	0.048732	0.45
BsmtFinType1	GLQ	1	0.207496	0.028274	7.34
BsmtFinType1	LwQ	1	0.067101	0.055247	1.21
BsmtFinType1	NA	1	0.025051	0.031482	0.80
BsmtFinType1	Rec	1	0.135882	0.048649	2.79
BsmtFinType1	Unf	0	0	.	.
TotalBsmt*BsmtFinTyp	ALQ	1	0.000102	0.000027508	3.70
TotalBsmt*BsmtFinTyp	BLQ	1	0.000183	0.000043729	4.19
TotalBsmt*BsmtFinTyp	GLQ	1	0.000018771	0.000015787	1.19
TotalBsmt*BsmtFinTyp	LwQ	1	0.000092235	0.000048784	1.89
TotalBsmt*BsmtFinTyp	NA	0	0	.	.
TotalBsmt*BsmtFinTyp	Rec	1	0.000051172	0.000042911	1.19
TotalBsmt*BsmtFinTyp	Unf	1	0.000121	0.000020650	5.86