

## **Figure 12: PROC GENMOD, PROC LOGISTIC, and PROC GLMSELECT Results**

Question 1: Do Particular Sensor Calibrations Affect the Platform's Ability to Detect Objects?

PROC GENMOD (Generalized Linear Model)

Analysis Of GEE Parameter Estimates					
Empirical Standard Error Estimates					
Parameter	Estimate	Standard Error	95% Confidence Limits		Pr >  Z
Intercept	492.6091	35.6612	422.7144	562.5038	13.81 <.0001
focal_length	-0.5810	0.0393	-0.6580	-0.5040	-14.79 <.0001
cx	0.0990	0.0095	0.0804	0.1176	10.44 <.0001
cy	0.0483	0.0154	0.0181	0.0786	3.13 0.0017

Score Statistics For Type 3 GEE Analysis			
Source	DF	Chi-Square	Pr > ChiSq
focal_length	1	218.59	<.0001
cx	1	108.91	<.0001
cy	1	9.81	0.0017

Evidence of individual variables strongly influencing the number of annotations observed.

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PROC LOGISTIC

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.0236	0.00763	9.5391	0.0020
BIN_focal_length	1	0.00338	0.000651	26.9522	<.0001
BIN_cx	1	-0.0125	0.000966	168.2570	<.0001
BIN_focal_len*BIN_cx	1	0.000178	0.000028	39.9332	<.0001
BIN_cy	1	-0.00456	0.00122	13.8720	0.0002
BIN_focal_len*BIN_cy	1	0.000021	0.000041	0.2556	0.6132
BIN_cx*BIN_cy	1	0.000351	0.000061	33.4779	<.0001
BIN_fo*BIN_cx*BIN_cy	1	-5.36E-6	1.968E-6	7.4134	0.0065

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	48.7	Somers' D	0.024
Percent Discordant	46.3	Gamma	0.025
Percent Tied	4.9	Tau-a	0.012
Pairs	57465169985	c	0.512

Direct evidence of interactions strongly influencing number of annotations observed.

## Question 1: Do Particular Sensor Calibrations Affect the Platform's Ability to Detect Objects?

Top 10 t-values for Three-Factor and Two-Factor Interactions

Parameter Estimates			
Parameter	Estimate	Standard Error	t Value
Intercept	59.267726	0.244797	242.11
BIN_fo*BIN_cx*BIN_cy 7 8 3	15.919524	0.715434	22.25
BIN_fo*BIN_cx*BIN_cy 3 3 4	14.857738	0.718729	20.67
BIN_fo*BIN_cx*BIN_cy 7 6 5	14.270092	0.729281	19.57
BIN_fo*BIN_cx*BIN_cy 4 3 6	12.820105	0.716809	17.88
BIN_fo*BIN_cx*BIN_cy 3 7 6	13.289088	0.744722	17.84
Parameter	Estimate	Standard Error	t Value
Intercept	59.267726	0.244797	242.11
BIN_focal_len*BIN_cx 7 8	32.285081	1.657493	19.48
BIN_focal_len*BIN_cx 4 3	12.820105	0.716809	17.88
BIN_focal_len*BIN_cx 5 3	24.628059	1.617804	15.22
BIN_focal_len*BIN_cx 6 4	17.914198	1.276252	14.04
BIN_focal_len*BIN_cx 6 8	16.468274	1.189067	13.85

More evidence of interactions strongly influencing number of annotations observed.