```
UNIANOVA Distance BY Bg Model Display
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /POSTHOC=Display(BONFERRONI)
  /EMMEANS=TABLES(Bg) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Model) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Display) COMPARE ADJ(BONFERRONI)
  /PRINT=DESCRIPTIVE
  /CRITERIA=ALPHA(.05)
  /DESIGN=Bg Model Display Bg*Model Bg*Display Model*Display Bg*Model*Display
.
```

Univariate Analysis of Variance

Notes

Output Created		20-May-2013 14:17:52
Comments		
Input	Data	C:\Users\common\Desktop\Color Correction\p3700_predicitionAnova.csv
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	231288
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		UNIANOVA Distance BY Bg Model Display /METHOD=SSTYPE(3) /INTERCEPT=INCLUDE /POSTHOC=Display (BONFERRONI) /EMMEANS=TABLES(Bg) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES(Model) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES(Display) COMPARE ADJ(BONFERRONI) /PRINT=DESCRIPTIVE /CRITERIA=ALPHA(.05) /DESIGN=Bg Model Display Bg*Model Bg*Display Model*Display Bg*Model*Display.
Resources	Processor Time	0:00:01.185
	Elapsed Time	0:00:01.187

[DataSet1]

Between-Subjects Factors

		N
Bg	Behind	115644
	front	115644
Model	BinModel	115644
	DirectModel	115644
Display	BigPro	77096
	Phone	77096
	SmallP	77096

Descriptive Statistics

Dependent Variable:Distance

Bg	Model	Display	Mean	Std. Deviation	N
Behind	BinModel	BigPro	2.7753E0	1.90897523E0	19274
		Phone	8.2471E0	1.13913430E1	19274
		SmallP	4.9806E0	2.40874089E0	19274
		Total	5.3343E0	7.17315432E0	57822
	DirectModel	BigPro	1.3674E1	6.43769901E0	19274
		Phone	3.2268E1	1.82482083E1	19274
		SmallP	2.2066E1	1.50438686E1	19274
		Total	2.2669E1	1.60638801E1	57822
	Total	BigPro	8.2250E0	7.22795509E0	38548
		Phone	2.0257E1	1.93811562E1	38548
		SmallP	1.3523E1	1.37491281E1	38548
		Total	1.4002E1	1.51617547E1	115644
front	BinModel	BigPro	1.0289E1	5.39049108E0	19274
		Phone	2.5632E1	1.06479439E1	19274
		SmallP	1.0029E1	2.76259266E0	19274
		Total	1.5317E1	1.01605097E1	57822
	DirectModel	BigPro	1.7507E1	7.27691790E0	19274
		Phone	3.4374E1	1.26669587E1	19274
		SmallP	2.2716E1	1.22542038E1	19274
		Total	2.4866E1	1.30735193E1	57822
	Total	BigPro	1.3898E1	7.35046795E0	38548
		Phone	3.0003E1	1.24907763E1	38548
		SmallP	1.6373E1	1.09150243E1	38548

Descriptive Statistics

Dependent Variable:Distance

Bg	Model	Display	Mean	Std. Deviation	N
front	Total	Total	2.0091E1	1.26440419E1	115644
Total	BinModel	BigPro	6.5323E0	5.51956687E0	38548
		Phone	1.6939E1	1.40403849E1	38548
		SmallP	7.5052E0	3.61807588E0	38548
		Total	1.0325E1	1.01123113E1	115644
	DirectModel	BigPro	1.5590E1	7.13229787E0	38548
		Phone	3.3321E1	1.57425460E1	38548
		SmallP	2.2391E1	1.37237993E1	38548
		Total	2.3768E1	1.46862868E1	115644
	Total	BigPro	1.1061E1	7.82190381E0	77096
		Phone	2.5130E1	1.70166918E1	77096
		SmallP	1.4948E1	1.24946622E1	77096
		Total	1.7046E1	1.42879563E1	231288

Tests of Between-Subjects Effects

Dependent Variable:Distance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.306E7	11	2095952.746	20063.254	.000
Intercept	6.721E7	1	6.721E7	643374.832	.000
Bg	2144316.701	1	2144316.701	20526.212	.000
Model	1.045E7	1	1.045E7	100012.525	.000
Display	8139368.031	2	4069684.016	38956.557	.000
Bg * Model	876366.053	1	876366.053	8388.908	.000
Bg * Display	463332.736	2	231666.368	2217.598	.000
Model * Display	577090.791	2	288545.396	2762.066	.000
Bg * Model * Display	406973.387	2	203486.694	1947.852	.000
Error	2.416E7	231276	104.467		
Total	1.144E8	231288			
Corrected Total	4.722E7	231287			

a. R Squared = .488 (Adjusted R Squared = .488)

Estimated Marginal Means

1. Bg

Estimates

Dependent Variable:Distance

Bg	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Behind	14.002	.030	13.943	14.061
front	20.092	.030	20.033	20.151

Pairwise Comparisons

Dependent Variable:Distance

(I) Bg	(J) Bg	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
Behind	front	-6.090*	.043	.000	-6.173	-6.006
front	Behind	6.090*	.043	.000	6.006	6.173

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Dependent Variable:Distance

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	2144316.701	1	2144316.701	20526.212	.000
Error	2.416E7	231276	104.467		

The F tests the effect of Bg. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

2. Model

Estimates

Dependent Variable:Distance

Model	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
BinModel	10.326	.030	10.267	10.385
DirectModel	23.768	.030	23.709	23.827

Pairwise Comparisons

Dependent Variable:Distance

(I) Model	(J) Model	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
BinModel	DirectModel	-13.442*	.043	.000	-13.526	-13.359
DirectModel	BinModel	13.442*	.043	.000	13.359	13.526

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Dependent Variable:Distance

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	1.045E7	1	1.045E7	100012.525	.000
Error	2.416E7	231276	104.467		

The F tests the effect of Model. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

3. Display

Estimates

Dependent Variable:Distance

Display	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
BigPro	11.062	.037	10.989	11.134
Phone	25.131	.037	25.059	25.203
SmallP	14.948	.037	14.876	15.021

Pairwise Comparisons

Dependent Variable:Distance

(I) Display	(J) Display	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
BigPro	Phone	-14.069*	.052	.000	-14.194	-13.944
	SmallP	-3.887*	.052	.000	-4.011	-3.762
Phone	BigPro	14.069*	.052	.000	13.944	14.194
	SmallP	10.182*	.052	.000	10.058	10.307
SmallP	BigPro	3.887*	.052	.000	3.762	4.011
	Phone	-10.182*	.052	.000	-10.307	-10.058

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Dependent Variable:Distance

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	8139368.031	2	4069684.016	38956.557	.000
Error	2.416E7	231276	104.467		

The F tests the effect of Display. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Post Hoc Tests

Display

Multiple Comparisons

Distance
Bonferroni

(I) Display	(J) Display	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BigPro	Phone	-1.4069038E1	…	.000	-1.4193665E1	-1.3944410E1
	SmallP	-3.8867732E0	…	.000	-4.0114004E0	-3.7621460E0
Phone	BigPro	1.40690381E1	…	.000	1.3944410E1	1.4193665E1
	SmallP	1.01822648E1	…	.000	1.0057637E1	1.0306892E1
SmallP	BigPro	3.88677325E0	…	.000	3.7621460E0	4.0114004E0
	Phone	-1.0182264E1	…	.000	-1.0306892E1	-1.0057637E1

Based on observed means.
The error term is Mean Square(Error) = 104.467.

*. The mean difference is significant at the .05 level.

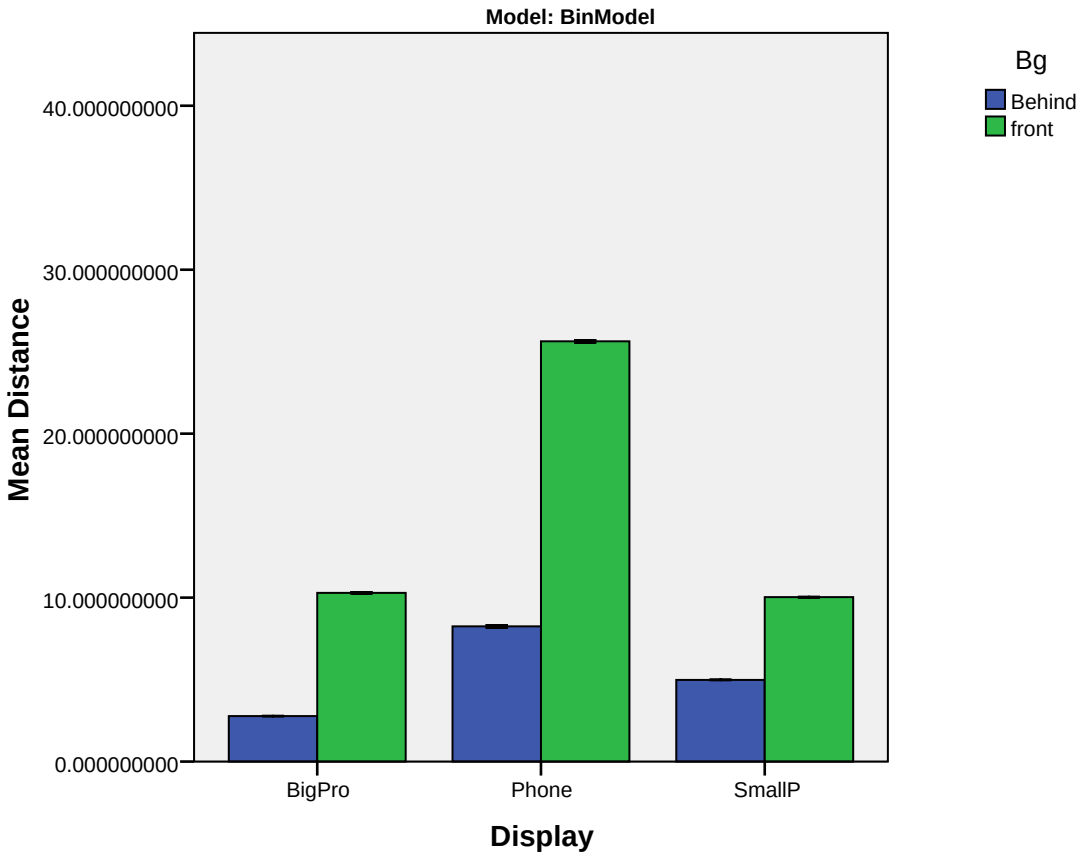
```
* Chart Builder.
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=Display MEANSE(Distance, 1)[nam
e="MEAN_Distance" LOW="MEAN_Distance_LOW" HIGH="MEAN_Distance_HIGH"] Bg MISSI
NG=LISTWISE REPORTMISSING=NO
  /GRAPHSPEC SOURCE=INLINE.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: Display=col(source(s), name("Display"), unit.category())
  DATA: MEAN_Distance=col(source(s), name("MEAN_Distance"))
  DATA: Bg=col(source(s), name("Bg"), unit.category())
  DATA: LOW=col(source(s), name("MEAN_Distance_LOW"))
  DATA: HIGH=col(source(s), name("MEAN_Distance_HIGH"))
  COORD: rect(dim(1,2), cluster(3,0))
  GUIDE: axis(dim(3), label("Display"))
  GUIDE: axis(dim(2), label("Mean Distance"))
  GUIDE: legend(aesthetic(aesthetic.color.interior), label("Bg"))
  GUIDE: text.footnote(label("Error Bars: +/- 1 SE"))
  SCALE: linear(dim(2), include(0), max(40))
  ELEMENT: interval(position(Bg*MEAN_Distance*Display), color.interior(Bg), s
hape.interior(shape.square))
  ELEMENT: interval(position(region.spread.range(Bg*(LOW+HIGH)*Display)), sha
pe.interior(shape.ibeam))
END GPL.
```

GGraph

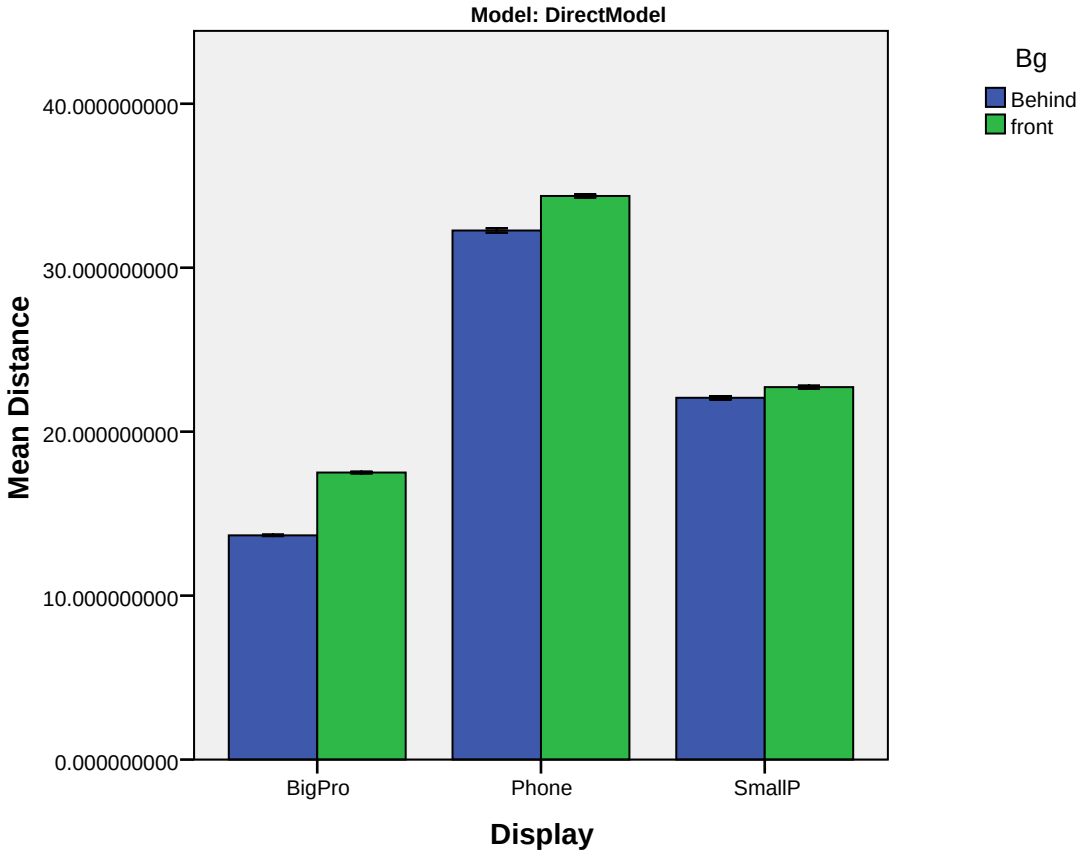
Notes

Output Created		20-May-2013 14:27:30
Comments		
Input	Data	C:\Users\common\Desktop\Color Correction\p3700_predicitionAnova.csv
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	Model
	N of Rows in Working Data File	231288
Syntax		GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Display MEANSE(Distance, 1)[name="MEAN_Distance" LOW="MEAN_Distance_LOW" HIGH="MEAN_Distance_HIGH"] Bg MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource(id("graphdataset")) DATA: Display=col(source(s), name("Display"), unit.category()) DATA: MEAN_Distance=col(source(s), name("MEAN_Distance")) DATA: Bg=col(source(s), name("Bg"), unit.category()) DATA: LOW=col(source(s), name("MEAN_Distance_LOW")) DATA: HIGH=col(source(s), name("MEAN_Distance_HIGH")) COORD: rect(dim(1,2), cluster(3,0)) GUIDE: axis(dim(3), label("Display")) GUIDE: axis(dim(2), label("Mean Distance")) GUIDE: legend(aesthetic(aesthetic.color.interior), label("Bg")) GUIDE: text.footnote(label("Error Bars: +/- 1 SE")) SCALE: linear(dim(2), include(0), max(40)) ELEMENT: interval(position(Bg*MEAN_Distance*Display), color.interior(Bg), shape.interior(shape.square)) ELEMENT: interval(position(region.spread.range(Bg*(LOW+HIGH)*Display)), shape.interior(shape.ibeam)) END GPL.
Resources	Processor Time	0:00:00.327
	Elapsed Time	0:00:00.328

[DataSet1]



Error Bars: +/- 1 SE



Error Bars: +/- 1 SE