```
EXAMINE VARIABLES=BFDis BFTime
  /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT
  /COMPARE GROUPS
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.
```

Explore

Notes

Output Created		16-Aug-2013 23:17:33
Comments		
Input	Data	C:\Users\common\Desktop\Color Correction\QuickCorrection.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1001
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.

Syntax		EXAMINE VARIABLES=BFDis BFTime
		  /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT
		  /COMPARE GROUPS
		  /STATISTICS DESCRIPTIVES
		  /CINTERVAL 95
		  /MISSING LISTWISE
		  /NOTOTAL.

Resources	Processor Time	0:00:01.139
	Elapsed Time	0:00:01.138

[DataSet1] C:\Users\common\Desktop\Color Correction\QuickCorrection.sav

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
BFDis	998	99.7%	3	.3%	1001	100.0%
BFTime	998	99.7%	3	.3%	1001	100.0%

Descriptives

			Statistic	Std. Error
BFDis	Mean		6.91583924E1	…
	95% Confidence Interval for Mean	Lower Bound	6.74327616E1	
		Upper Bound	7.08840231E1	
	5% Trimmed Mean		6.93792870E1	
	Median		7.03041921E1	
	Variance		771.747	
	Std. Deviation		2.77803366E1	
	Minimum		.00000000	
	Maximum		1.46710720E2	
	Range		1.46710720E2	
	Interquartile Range		35.48036157	
	Skewness		-.123	.077
	Kurtosis		.064	.155
BFTime	Mean		22682.84	21.021
	95% Confidence Interval for Mean	Lower Bound	22641.59	
		Upper Bound	22724.10	
	5% Trimmed Mean		22637.04	
	Median		22608.00	
	Variance		441017.760	
	Std. Deviation		664.092	
	Minimum		21145	
	Maximum		28169	
	Range		7024	
	Interquartile Range		521	
	Skewness		1.653	.077
	Kurtosis		6.791	.155

Tests of Normality

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BFDis	.025	998	.136	.994	998	.001
BFTime	.160	998	.000	.893	998	.000

a. Lilliefors Significance Correction

BFDis

Histogram

Mean =69.16
Std. Dev. =27.780
N =998

BFDis

BFTime

Histogram

Mean =22682.84
Std. Dev. =664.092
N =998

```
EXAMINE VARIABLES=QCHSCycles QCHSError QCHSTime QCHSRatio QCDCycles QCDError
QCDTime QCDRatio
  /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT
  /COMPARE GROUPS
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.
```

Explore

Notes

Output Created		16-Aug-2013 23:18:52
Comments		
Input	Data	C:\Users\common\Desktop\Color Correction\QuickCorrection.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1001
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.

Syntax		EXAMINE VARIABLES=QCHSCycles QCHSError QCHSTime QCHSRatio QCDCycles QCDError QCDTime QCDRatio
		  /PLOT BOXPLOT STEMLEAF HISTOGRAM NPPLOT
		  /COMPARE GROUPS
		  /STATISTICS DESCRIPTIVES
		  /CINTERVAL 95
		  /MISSING LISTWISE
		  /NOTOTAL.

Resources	Processor Time	0:00:04.461
	Elapsed Time	0:00:04.461

[DataSet1] C:\Users\common\Desktop\Color Correction\QuickCorrection.sav

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
QCHSCycles	998	99.7%	3	.3%	1001	100.0%
QCHSError	998	99.7%	3	.3%	1001	100.0%
QCHSTime	998	99.7%	3	.3%	1001	100.0%
QCHSRatio	998	99.7%	3	.3%	1001	100.0%
QCDCycles	998	99.7%	3	.3%	1001	100.0%
QCDError	998	99.7%	3	.3%	1001	100.0%
QCDTime	998	99.7%	3	.3%	1001	100.0%
QCDRatio	998	99.7%	3	.3%	1001	100.0%

Descriptives

			Statistic	Std. Error
QCHSCycles	Mean		10.50	.127
	95% Confidence Interval for Mean	Lower Bound	10.25	
		Upper Bound	10.75	
	5% Trimmed Mean		10.02	
	Median		9.00	
	Variance		16.220	
	Std. Deviation		4.027	
	Minimum		6	
	Maximum		33	
	Range		27	
	Interquartile Range		3	
	Skewness		2.316	.077
	Kurtosis		6.461	.155
QCHSError	Mean		6.53033879E0	…
	95% Confidence Interval for Mean	Lower Bound	5.69635419E0	
		Upper Bound	7.36432339E0	
	5% Trimmed Mean		4.36413692E0	
	Median		…	
	Variance		180.258	
	Std. Deviation		1.34260316E1	
	Minimum		.000000000	
	Maximum		1.62968855E2	
	Range		1.62968855E2	
	Interquartile Range		6.374029152	
	Skewness		4.247	.077
	Kurtosis		28.687	.155
QCHSTime	Mean		176.43	2.443
	95% Confidence Interval for Mean	Lower Bound	171.64	
		Upper Bound	181.23	
	5% Trimmed Mean		170.62	
	Median		163.00	
	Variance		5957.528	
	Std. Deviation		77.185	
	Minimum		76	
	Maximum		1036	
	Range		960	
	Interquartile Range		58	
	Skewness		6.184	.077
	Kurtosis		57.059	.155

Descriptives

			Statistic	Std. Error
QCHSRatio	Mean		141.52	1.375
	95% Confidence Interval for Mean	Lower Bound	138.82	
		Upper Bound	144.22	
	5% Trimmed Mean		137.79	
	Median		139.00	
	Variance		1887.598	
	Std. Deviation		43.446	
	Minimum		21	
	Maximum		311	
	Range		290	
	Interquartile Range		44	
	Skewness		1.322	.077
	Kurtosis		3.193	.155
QCDCycles	Mean		22.51	.111
	95% Confidence Interval for Mean	Lower Bound	22.30	
		Upper Bound	22.73	
	5% Trimmed Mean		22.13	
	Median		20.00	
	Variance		12.256	
	Std. Deviation		3.501	
	Minimum		19	
	Maximum		37	
	Range		18	
	Interquartile Range		5	
	Skewness		1.382	.077
	Kurtosis		1.086	.155
QCDError	Mean		8.39498967E0	…
	95% Confidence Interval for Mean	Lower Bound	7.35557268E0	
		Upper Bound	9.43440666E0	
	5% Trimmed Mean		5.71317525E0	
	Median		1.78674411E0	
	Variance		280.001	
	Std. Deviation		1.67332170E1	
	Minimum		.000000000	
	Maximum		1.82032561E2	
	Range		1.82032561E2	
	Interquartile Range		9.039215224	
	Skewness		4.175	.077
	Kurtosis		25.556	.155

Descriptives

			Statistic	Std. Error
QCDTime	Mean		241.82	4.417
	95% Confidence Interval for Mean	Lower Bound	233.15	
		Upper Bound	250.49	
	5% Trimmed Mean		223.82	
	Median		171.50	
	Variance		19471.269	
	Std. Deviation		139.539	
	Minimum		143	
	Maximum		1168	
	Range		1025	
	Interquartile Range		158	
	Skewness		2.962	.077
	Kurtosis		12.859	.155
QCDRatio	Mean		113.07	1.271
	95% Confidence Interval for Mean	Lower Bound	110.58	
		Upper Bound	115.57	
	5% Trimmed Mean		114.86	
	Median		132.50	
	Variance		1612.180	
	Std. Deviation		40.152	
	Minimum		18	
	Maximum		161	
	Range		143	
	Interquartile Range		76	
	Skewness		-.444	.077
	Kurtosis		-1.346	.155

Tests of Normality

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
QCHSCycles	.210	998	.000	.754	998	.000
QCHSError	.313	998	.000	.531	998	.000
QCHSTime	.154	998	.000	.577	998	.000
QCHSRatio	.105	998	.000	.888	998	.000
QCDCycles	.280	998	.000	.756	998	.000
QCDError	.308	998	.000	.539	998	.000
QCDTime	.242	998	.000	.673	998	.000
QCDRatio	.242	998	.000	.838	998	.000

a. Lilliefors Significance Correction

QCHSCycles
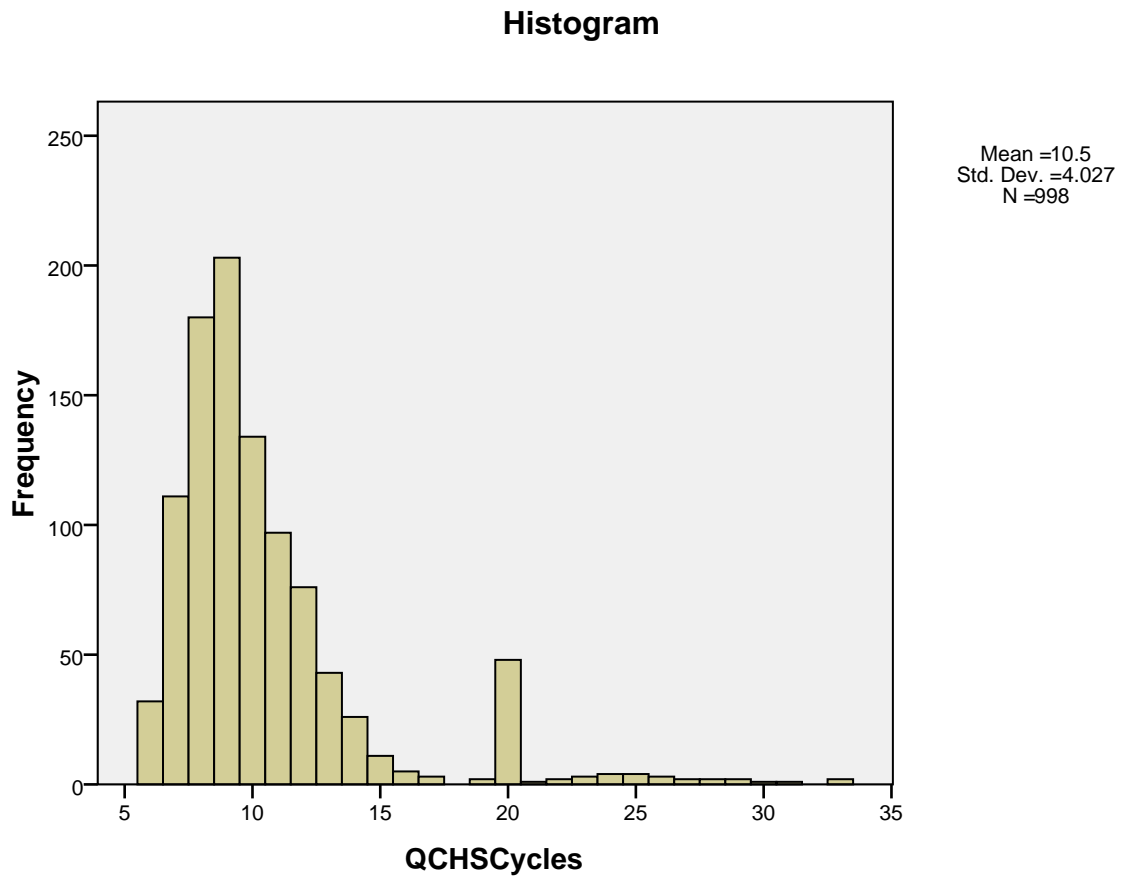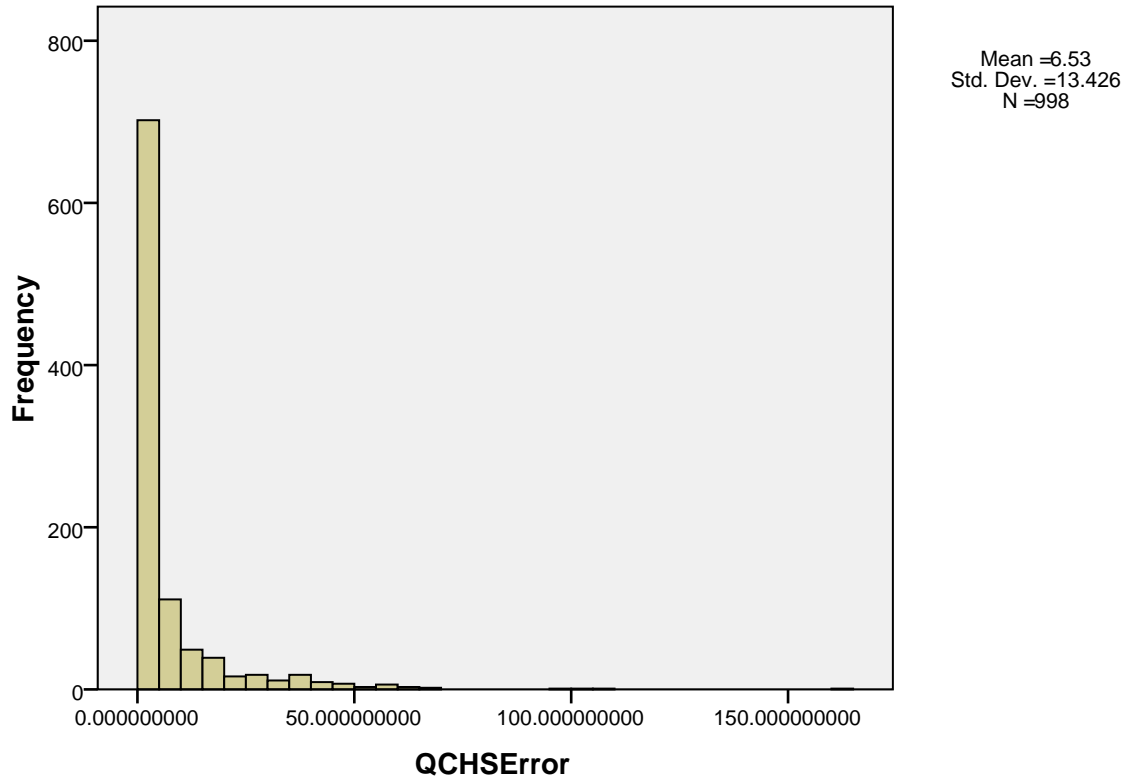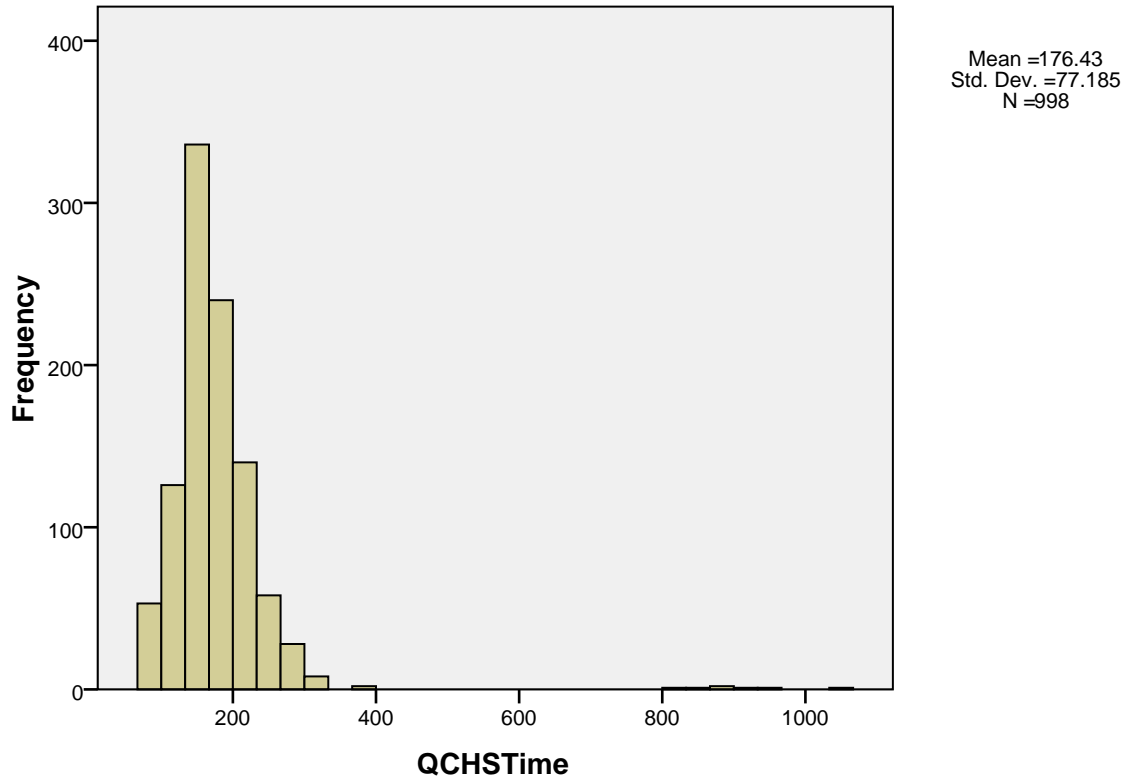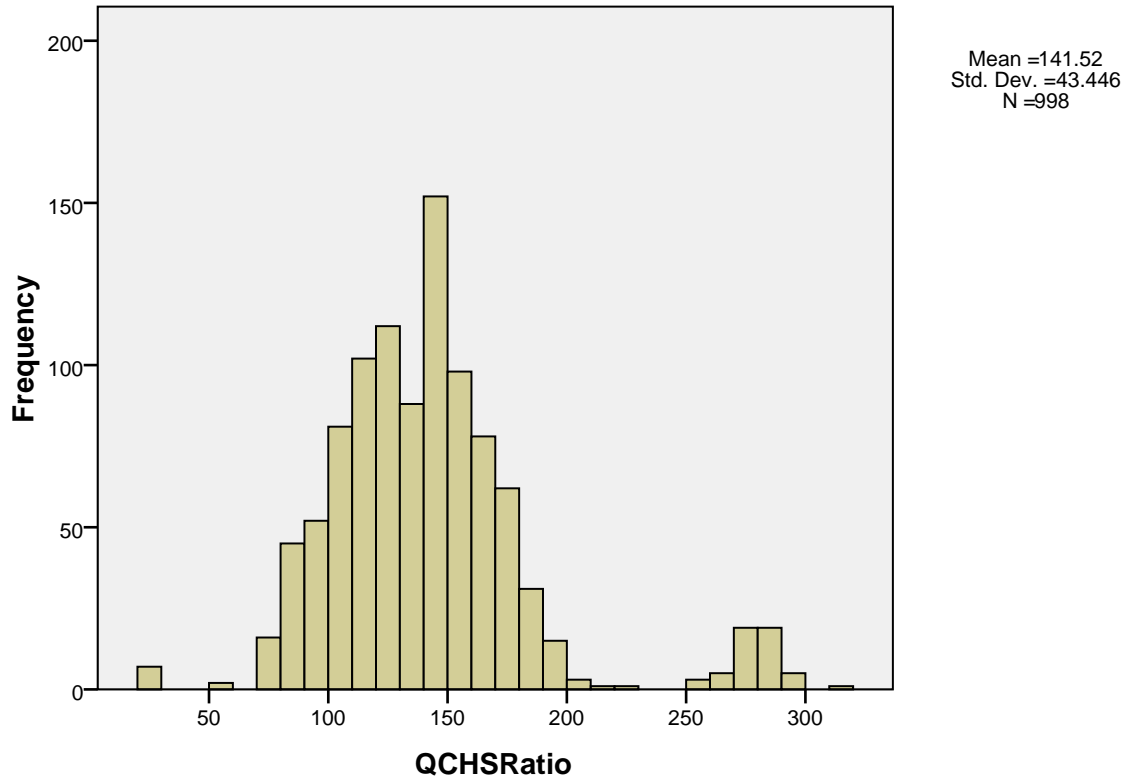
## Histogram

Mean =10.5
Std. Dev. =4.027
N =998

QCHSError

Histogram


Mean =6.53
Std. Dev. =13.426
N =998

Frequency axis: 0, 200, 400, 600, 800

QCHSError axis: 0.000000000, 50.000000000, 100.000000000, 150.000000000

QCHSTime

Histogram

Mean =176.43
Std. Dev. =77.185
N =998

QCHSRatio

Histogram

Mean =141.52
Std. Dev. =43.446
N =998

QCDCycles

Histogram

Mean =22.51
Std. Dev. =3.501
N =998

QCDCycles

QCDError

Histogram

Mean =8.39
Std. Dev. =16.733
N =998

QCDTime

Histogram

Mean =241.82
Std. Dev. =139.539
N =998

QCDRatio

Histogram

Mean =113.07
Std. Dev. =40.152
N =998
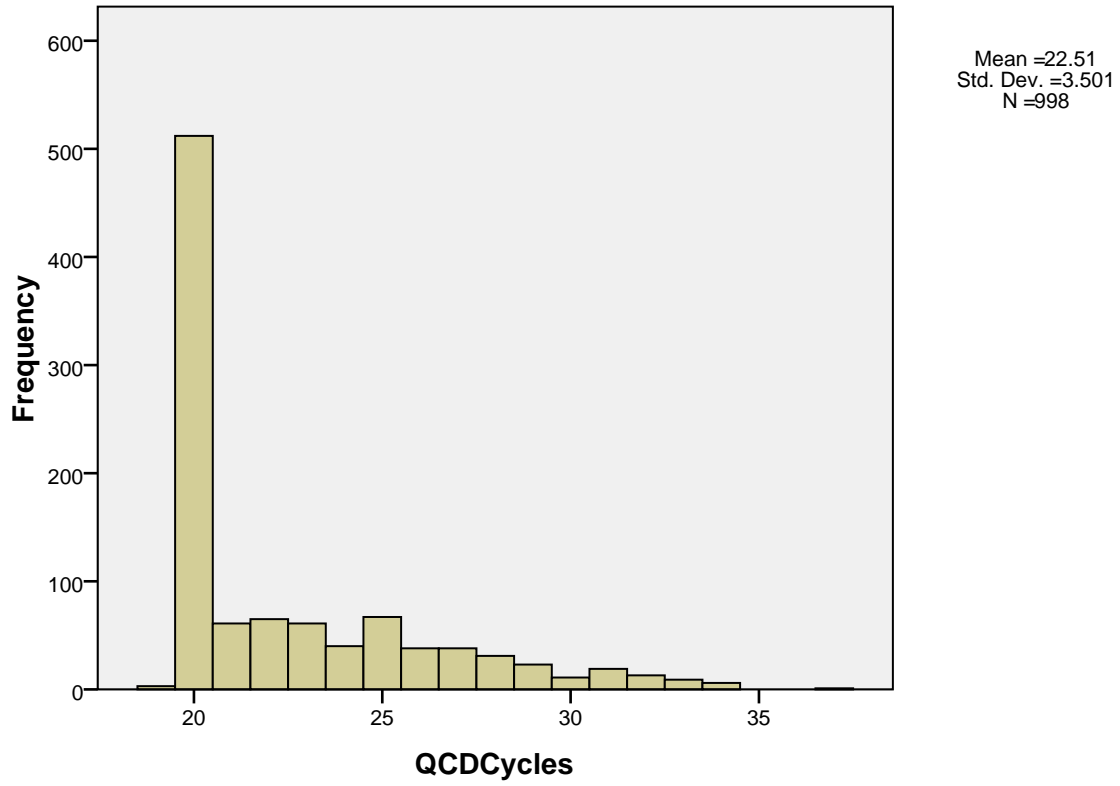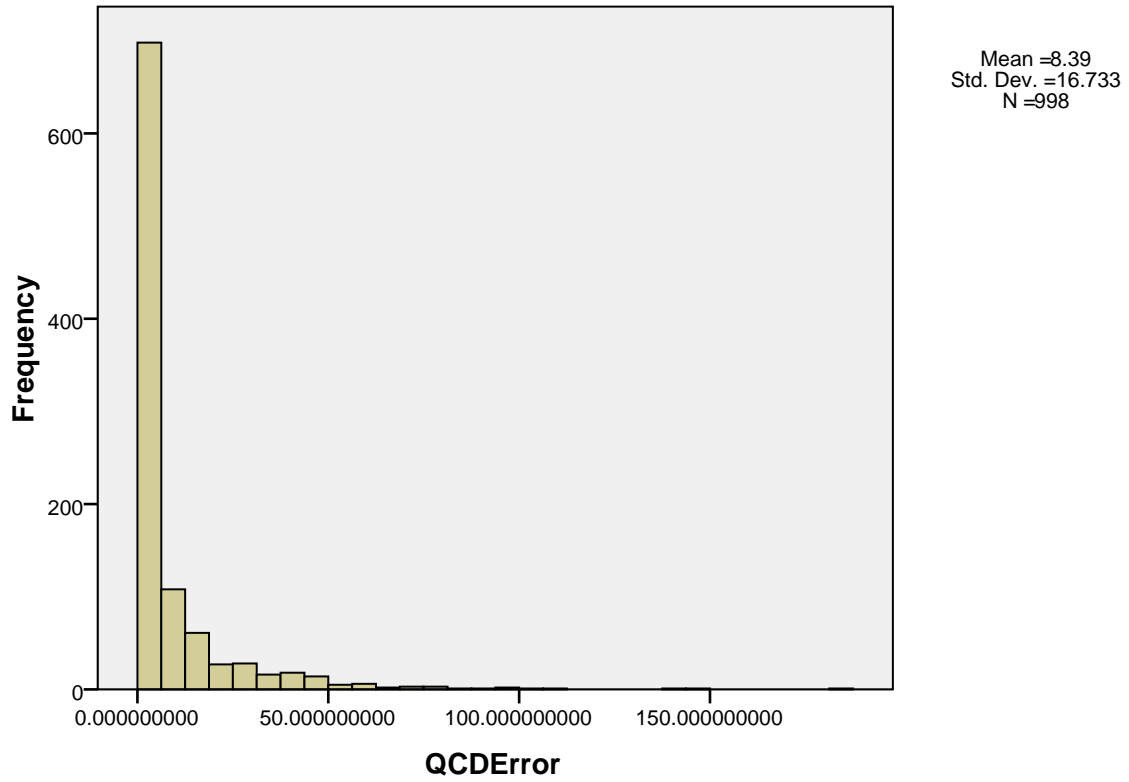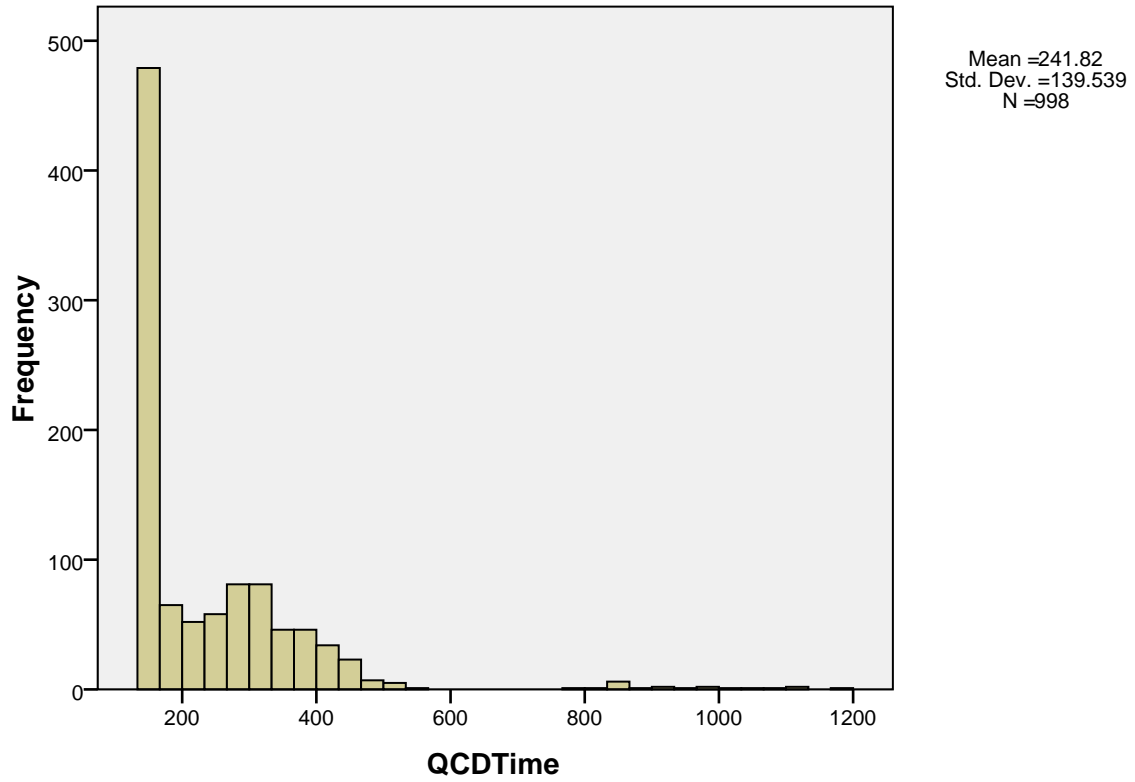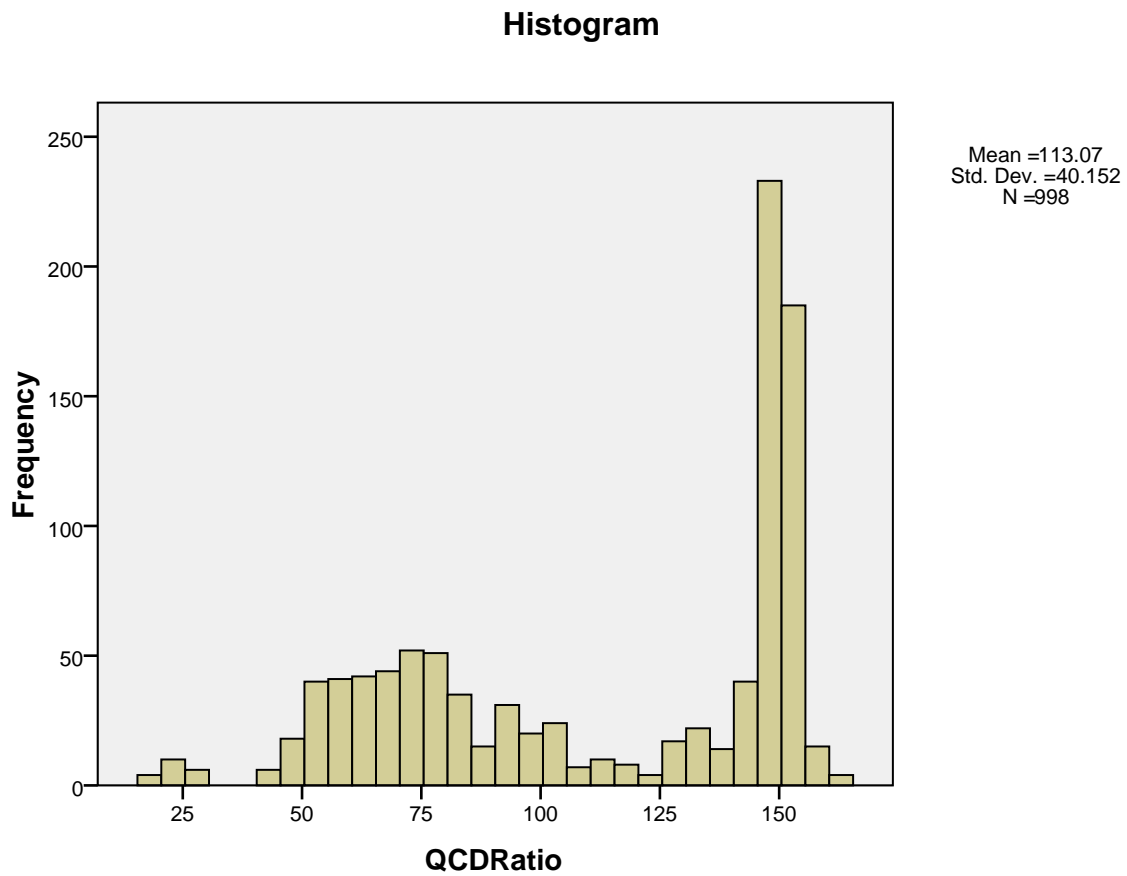
```
NPAR TESTS
  /WILCOXON=QCHSTime QCHSError WITH QCDTime QCDError (PAIRED)
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		16-Aug-2013 23:29:19
Comments		
Input	Data	C:\Users\common\Desktop\Color Correction\QuickCorrection.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1001
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /WILCOXON=QCHSTime QCHSError WITH QCDTime QCDError (PAIRED) /MISSING ANALYSIS.
Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.000
	Number of Cases Allowed[a]	87381

a. Based on availability of workspace memory.

```
[DataSet1] C:\Users\common\Desktop\Color Correction\QuickCorrection.sav
```

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
QCDTime - QCHSTime	Negative Ranks	295[a]	328.21	96821.50
	Positive Ranks	695[b]	566.51	393723.50
	Ties	8[c]		
	Total	998		
QCDError - QCHSError	Negative Ranks	329[d]	374.53	123219.00
	Positive Ranks	433[e]	386.80	167484.00
	Ties	236[f]		
	Total	998		

a. QCDTime < QCHSTime

b. QCDTime > QCHSTime

c. QCDTime = QCHSTime

d. QCDError < QCHSError

e. QCDError > QCHSError

f. QCDError = QCHSError

Test Statistics[b]

	QCDTime - QCHSTime	QCDError - QCHSError
Z	-16.497[a]	-3.641[a]
Asymp. Sig. (2-tailed)	.000	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test