StatXact Compared to SPSS Exact Tests and SAS Software

	StatXact	SPSS Exact	SAS Version 9
One-ample Goodness-of-Fit			
Chi-Square	YES	YES**	YES
Kolmogorov	YES	YES**	
Lilliefors	YES		
Runs	YES	YES**	
Paired Samples			
Sign	YES	YES**	YES
Wilcoxon Signed-Rank	YES	YES**	
Hodges Lehman Estimates	YES		
Permutation	YES		
McNemar - Conditional	YES	YES**	YES
McNemar - Unconditional	Yes		
Marginal Homogeneity	YES	YES**	
Two Independent Samples			
Wilcoxon-Mann-Whitney	YES	YES**	YES*
Hodges Lehman estimates	YES		
Normal Scores	YES		YES*
Savage Scores	YES		YES*
Siegel-Tukey	YES		YES
Ansari-Bradley	YES		YES
Klotz	YES		YES
Mood	YES		YES
Conover	YES		
Permutation	YES		YES*
Logrank	YES		
Wilcoxon-Gehan	YES		
Kolmogorov-Smirnov	YES	YES**	YES
Wald-Wolfowitz Runs	YES	YES**	
K Related Samples			
Friedman	YES	YES**	
Kendall's W	YES	YES**	
Cochran's Q	YES	YES**	
Quade	YES		
Page	YES		
K Independent Samples			
Median	YES	YES**	YES
Kruskall-Wallis	YES	YES**	YES
Normal Scores	YES		YES
Savage	YES		YES
ANOVA with General Scores	YES		YES
Jonckheere-Terpstra	YES	YES**	YES
Linear by Linear	YES	YES**	YES
Logrank	YES		
Wilcoxon-Gehan	YES		
Tarone and Ware Trend	YES		
One-Sample Rates and Proportions			
Binomial	YES	YES**	YES
Multinomial	YES		
Poisson	YES		

	StatXact	SPSS Exact	SAS Version 9
Poisson Rates			
Homogeneity of Relative Risks	YES		
CI on Common Relative Risk	YES		
Trend in C Ordered Poisson Rates	YES		
Two Independent Binomials			
Fisher's Exact	YES	YES**	YES
Pearson's Chi-Square	YES	YES**	YES
Likelihood Ratio	YES	YES**	YES
CI on Odds Ratio	YES		YES
Barnard's Test for Superiority	YES		
Tests of Non-inferiority	YES		
Tests of Equivalence	YES		
CI on Difference of Proportions	YES		
CI on Ratio of Proportions	YES		
Two Related Binomials			
McNemar	YES		YES
CI on odds Ratio	YES		
Test for Superiority	YES		
Tests of Non-inferiority	YES		
Tests of Equivalence	YES		
CI on Difference of Proportions	YES		
Stratified 2x2 Tables			
Homogeneity of Odds Ratios	YES		
CI on Common Odds Ratios	YES		
C Ordered Binomials (with or without strata)			
Cochran-Armitage Trend	YES		YES*
Permutation with General Scores	YES		YES*
Trend Test for Clustered Data	YES		
Test for Interaction Across Strata	YES		
Two Ordered Multinomials (with or without strata)			
Wilcoxon-Mann-Whitney	YES		YES*
Savage Scores	YES		YES*
Normal Scores	YES		YES*
Permutation with General Scores	YES		YES*
Test for Interaction Across Strata	YES		
Unordered RxC Table			
Pearson's Chi-Square	YES	YES**	YES
Likelihood Ratio	YES	YES**	YES
Fisher-Freeman-Halton	YES	YES**	YES
Single Ordered RxC Table			
Kruskal-Wallis	YES	YES**	YES
Normal Scores	YES		YES
Savage	YES		YES
ANOVA with Arbitrary Scores	YES		YES
Doubly Ordered RxC Table			
Jonckheere-Terpstra	YES	YES**	YES
Linear by Linear Association	YES	YES**	YES

	StatXact	SPSS Exact	SAS Version 9
Stratified RxC Tables			
Unordered RxC Table	YES		
Single Ordered RxC Table	YES		
Doubly Ordered RxC Table	YES		
Measures of Association (nominal)			
Contingency Coefficients	YES	YES**	
Goodman-Kruskal-Tau	YES	YES**	
Uncertainty Coefficient	YES	YES**	
Measures of Association (ordinal)			
Pearson's Correlation	YES	YES**	YES
Spearman's Correlation	YES	YES**	YES
Kendall's Concordance	YES	YES**	
Kendall's Tau and Somers' D	YES	YES**	
Gamma Coefficient	YES	YES**	
Measures of Agreement			
Cohen's Kappa	YES	YES**	YES
Weighted Kappa	YES		YES
Power & Sample Size			
One Binomial	YES		YES
Paired Binomials: Difference	YES		
Two Binomials: Difference (conditional)	YES		
Two Binomials: Difference (unconditional)	YES		
Two Binomials: Non-inferiority	YES		
Two Binomials: Equivalence	YES		
K ordered Binomials	YES		
Two Ordered Multinomials (power)	YES		

* StatXact can handle Stratified or Unstratified data SPSS, SAS can handle only unstratified data

** The exact algorithms in SPSS Exact Tests were developed by and are licensed from Cytel Software.

Cytel Software Corporation
675 Massachusetts Avenue
Cambridge, MA 02139-3309

www.cytel.com
Sales@cytel.com
T: +1.617.661.2011
F: +1.617.661.4405

$$P_1(\bar{R}_j^{opt}) \geq P_1(\bar{R}_j) \text{ for all}$$