

Chapter 104

The Procedure Window

Introduction

This chapter discusses the operation of the **NCSS Procedure Window**, one of the four main windows of the **NCSS** statistical analysis system. The other three windows are the *Data Window*, the *Output Window*, and the *Procedure Navigator Window*. These are described in other chapters. Each analysis or graphics procedure in **NCSS** (e.g., Descriptive Statistics, Two-Sample T-Test, Regression, Scatterplots, etc.) has its own Procedure Window, which contains all the settings, options, and parameters required to run the analysis. These options are separated into groups called *panels* or *tabs*. A particular panel is viewed by pressing the corresponding tab that appears at the left side of the window.

At most six procedure windows can be opened at a time. You can widen the window to increase the size of the immediate help window by dragging the corners of the window.

The Procedure Window is comprised of five main items: The *Options Tabs*, the *Run Button*, the *Help Pane*, the *Menu*, and the *Toolbar*. Each of these components will be described in the sections that follow.

Procedure Settings Files

The values of all options available for a procedure are stored in *settings files*. By creating and saving procedure settings files (formerly referred to as *templates*), you can tailor each procedure to your own specific needs. Each time you use a procedure, you simply load your settings from a file and run the calculations you have preset. You do not have to set all the options every time. You can save and load settings files anywhere on your computer or network.

Settings files have the extension ***.t[Procedure Number]**, where [Procedure Number] is replaced by the number of the procedure (e.g., *.t157 is the extension for all Multiple Regression procedure settings files). A complete list of all procedures by number is given at the end of this chapter. Each procedure's name and number are displayed near the bottom left of each procedure window when *Procedure Info* is selected to be shown. To display procedure info, click *View > Show Procedure Info* in the Procedure Window menu.

Default Settings

Whenever you run or close a procedure, the current settings are automatically saved in a default settings file. This file is automatically loaded when the procedure is next opened. This allows you to continue using the procedure without resetting all of the options.

Options Tabs

Your settings and selections that control a procedure are entered on the *Options Tabs*. The panel consists of several types of windows objects such as text boxes, check boxes, list boxes, and buttons. These control the variables used in an analysis or graph, how the analysis is performed, and which reports will be generated. Not all options are always required. Use the *Guide Me* panel in the lower right corner of the window to have the program show you which options are required by the procedure.

Entering Text

When text (either numeric or letters) is needed for a particular option, you will be allowed to type text in the box. Many of these text boxes also have a pull-down button on the right. Pressing this button will allow you to select an option from a list of typical values, rather than type in the value.

Selecting from a List

Some options require you to select from a list. In this case, a dropdown list will allow you to choose from the selections available.

Selecting One or More Variables

Variables in the Procedure Window correspond to columns in the dataset. When a procedure option requires one or more variable names, you can type the names directly into the box or click on the button to the right to bring up the Column Selection window. You can also bring up the Column Selection window by double-clicking inside the box. The Column Selection window allows you to select one or more columns from those in the current dataset.

When selecting multiple columns, you can use the *Shift* key to select a list of contiguous variables or use the *Ctrl* key to select disjoint (non-contiguous) variables.

At times, it may be more convenient to store the column numbers rather than the column names or to expand or collapse the list of columns selected. Use the *Long: List All Columns*, *Short: Collapse Adjoining Columns*, *Return Column Names*, and *Return Column Numbers* options in the *Result Style* dropdown to indicate how you want the columns to appear when written back to the Procedure Window.

Run Button

Click on the green *Run Button* located in the upper-left portion of the window to run the analysis or graphics procedure and obtain a report. While the procedure is running the green Run Button will change to a red *Abort Run* button. If the procedure is taking too long or you want to interrupt the calculations, click on the red button to immediately terminate the calculations. While a procedure is running, look for progress information in the Help Pane on the right.

Help Pane

The Help Pane is comprised of the Help Center, which contains links to useful help resources, and the Option Info display box, which displays information as you mouse over each input option.

Help Center

Click on the *Help Center* heading to expand or collapse the help options inside. The help center contains various links to procedure-specific help topics and examples as well as links to general training videos and documentation. It also contains an option to help you fill out the procedure input options by sequentially highlighting the primary options in the procedure. This is sometimes referred to as *Guide Me*.

Option Info

As you mouse over or set focus on each option on the Procedure Window, the *Option Info* box in the Help Pane on the right will be updated with important information about that option. Use this information to help you decide on how to complete each option. Look for option recommendations and descriptions of possible choices. While a procedure is running, look for progress information in the option info box.

Menus

We will now discuss the various options that appear in the Procedure Window menus.

File Menu

The File Menu is used for initializing, loading, and saving procedure settings files. Each set of options for a procedure may be saved for future use. In this way, you do not have to set the options every time you use a procedure. Instead, you set the options once, save them to a file, and re-load the settings whenever you re-use the procedure. You can save and load settings files anywhere on your computer or network.

- **Reset All Settings to Defaults**

This menu item resets all options to their default values.

- **Open Settings File**

This menu item opens a file selection dialog from which you can select a procedure settings file to open from anywhere on your computer or network.

- **Recent**

This menu item provides a list of recently saved and recently-opened procedure settings files. Click on any file in the list to open it.

- **Open Example Settings File**

This menu item opens a window from which you can select from the available example settings files for that procedure. This is particularly useful when following tutorials in the procedure documentation.

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- **Save Settings to a File**
This menu item opens a window with which you can name and save the current procedure settings to a file.
- **Autosave Settings**
Selecting this option causes the program to automatically save a procedure settings file each time a procedure is run. The name and location of the saved settings file is listed in the Procedure Input Settings Report at the end of the output (if requested).
- **System Options**
This menu item brings up the System Options window to set various system options.
- **Close This Procedure**
This menu item closes this procedure window. It does not terminate the **NCSS** system.
- **Exit NCSS**
This option terminates the **NCSS** system. If you have unsaved data or report galleries, you will be prompted to save them before the program closes.

Run Menu

The Run Procedure menu item runs the analysis, displaying the output in the Output document of the word processor. After you have set all options to their appropriate values, select this option to perform the analysis. The procedure may alternatively be run by pressing the *F9* function key or by pressing the green Run Button in the upper-left portion of the screen. While a procedure is running, look for progress information in the Help Pane on the right.

While the procedure is running this menu item will change to Abort and the green Run Button will change to a red *Abort Run* button. If the procedure is taking too long or you want to interrupt the calculations, click on the red button or select *Abort* from the *Run* menu to immediately terminate the calculations.

- **Run Procedure**
Click this option to run the analysis.
- **Create Page Breaks During Procedure Run**
Check this option to create page breaks at the end of each page of the report. This aids in formatting the report for printing.
- **Add the Procedure Input Settings to the Report**
Use this option to indicate whether to display a section at the end of the report documenting the procedure settings that were used to generate the report. This settings report will be displayed each time a procedure is run.

View Menu

The View Menu controls what objects are displayed on the Procedure Window. You can use this message to show or hide the toolbar and show or hide procedure info that contains procedure names and numbers and option numbers. This procedure information is particularly useful when writing macros. With this menu you can also increase the size of the text in all **NCSS** windows.

Data Menu

The Data Menu contains Filter and Group By options. The options are also accessible on the toolbar.

Analysis and Graphics Menus

These menus load the corresponding procedure windows.

Tools Menu

From this menu you can load various statistical calculators, data procedures, and the macro command center window. You can also play the active macro from this menu.

Window Menu

This menu lets you transfer to one of the other **NCSS** windows such as the Output window or one of the currently open procedure windows.

Help Menu

From this menu you can launch the **NCSS** Help System and view documentation, tutorials, and references. From this menu you can also view licensing information.

Toolbar

The *Toolbar* is provided for single-click access to the most commonly used menu options. You will find that each of the options on the toolbar can also be found in the menus. The Toolbar is located at the top of the screen just under the menus. On the left, the toolbar contains buttons that allow you to reset, open, and save procedure settings files. There is also an option that allows you to quickly choose whether to display a section at the end of the report that documents the procedure settings that were used to generate it. On the right, the toolbar contains navigation buttons to help you quickly move among windows in the system and load new procedures.

List of Procedures Sorted by Procedure Name

The following is a list of all **NCSS** procedures (with Procedure Number, Documentation Chapter Number, and Name) sorted by procedure name. Procedure settings files have the extension ***.t[Procedure Number]**, where [Procedure Number] is replaced by the number of the procedure given below.

Proc. #	Chapter #	Name
309	148	3D Bar Charts
310	148	3D Bar Charts (2 Factors)
314	149	3D Line Charts
315	149	3D Line Charts (2 Factors)
91	170	3D Scatter Plots
92	171	3D Surface Plots
375	238	Acceptance Sampling for Attributes
548	381	Age-Specific Reference Intervals
54	312	All Possible Regressions
145	234	Analysis of 2x2 Cross-Over Designs using T-Tests
417	237	Analysis of 2x2 Cross-Over Designs using T-Tests for Equivalence
415	235	Analysis of 2x2 Cross-Over Designs using T-Tests for Non-Inferiority
416	236	Analysis of 2x2 Cross-Over Designs using T-Tests for Superiority by a Margin
430	226	Analysis of Covariance (ANCOVA) with Two Groups
334	256	Analysis of Runs
27	213	Analysis of Two-Level Designs
370	600	Appraisal Ratio Studies
96	485	Appraisal Ratios (Old Version)
106	390	Area Under Curve
34	471	ARIMA (Box-Jenkins)
365	479	Assignment
35	472	Autocorrelations
36	474	Automatic ARMA
320	195	Back-to-Back Stem-and-Leaf Plots
1	211	Balanced Design Analysis of Variance
104	262	Balanced Incomplete Block Designs
87	141	Bar Charts
109	141	Bar Charts (2 Factors)
101	551	Beta Distribution Fitting
175	538	Binary Diagnostic Tests - Clustered Samples
174	536	Binary Diagnostic Tests - Paired Samples
172	535	Binary Diagnostic Tests - Single Sample
173	537	Binary Diagnostic Tests - Two Independent Samples
307	204	Bland-Altman Plot and Analysis
74	152	Box Plots
110	152	Box Plots (2 Factors)
300	190	Box-Cox Transformation
302	192	Box-Cox Transformation for Simple Linear Regression
301	191	Box-Cox Transformation for Two or More Groups (T-Test and One-Way ANOVA)
354	258	C Charts
44	400	Canonical Correlation

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Proc. #	Chapter #	Name
330	255	Capability Analysis
345	144	Chi-Square Probability Plots
261	230	Circular Data Analysis
398	231	Circular Data Correlation
424	270	Cluster Randomization - Create Cluster Means Dataset
425	271	Cluster Randomization - Create Cluster Proportions Dataset
426	272	Cluster Randomization - Create Cluster Rates Dataset
282	450	Clustered Heat Maps (Double Dendrograms)
305	521	Cochran's Q Test
116	145	Combo Charts
117	145	Combo Charts (2 Factors)
136	486	Comparables - Sales Price (Old Version)
371	601	Comparables Appraisal
378	548	Comparing Two ROC Curves - Independent Groups Design
379	547	Comparing Two ROC Curves - Paired Design
381	564	Conditional Logistic Regression
164	501	Contingency Tables (Crosstabs / Chi-Square Test)
75	172	Contour Plots
374	295	Correlation
431	401	Correlation Matrix
45	430	Correspondence Analysis
162	565	Cox Regression
37	473	Cross-Correlations
147	560	Cumulative Incidence
538	353	Curve Fitting - CDF
326	247	CUSUM Charts
93	117	Data List
299	123	Data Matching - Greedy
297	123	Data Matching - Optimal
23	118	Data Screening
287	122	Data Simulation
298	124	Data Stratification
38	469	Decomposition Forecasting
308	303	Deming Regression
82	154	Density Plots
114	154	Density Plots (2 Factors)
24	200	Descriptive Statistics
397	209	Descriptive Statistics - Summary Lists
393	201	Descriptive Statistics - Summary Tables
165	193	Descriptive Statistics - Summary Tables (Old Version)
86	268	Design Generator
46	440	Discriminant Analysis
102	550	Distribution (Weibull) Fitting
105	267	D-Optimal Designs
76	150	Dot Plots
112	150	Dot Plots (2 Factors)
47	402	Equality of Covariance
88	155	Error-Bar Charts

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Proc. #	Chapter #	Name
111	155	Error-Bar Charts (2 Factors)
391	156	Error-Bar Charts from Summary Data
392	156	Error-Bar Charts from Summary Data (2 Factors)
328	249	EWMA Charts
343	144	Exponential Probability Plots
39	465	Exponential Smoothing - Horizontal
40	466	Exponential Smoothing - Trend
41	467	Exponential Smoothing - Trend / Seasonal
537	109	Exporting Data to R
48	420	Factor Analysis
29	261	Fractional Factorial Designs
549	382	Fractional Polynomial Regression - Y vs One X
166	500	Frequency Tables
11	160	Function Plots
7	448	Fuzzy Clustering
100	552	Gamma Distribution Fitting
344	144	Gamma Probability Plots
544	351	General (Custom and Preset) Model Fit - Y vs One X
2	212	General Linear Models (GLM)
427	224	General Linear Models (GLM) for Fixed Factors
384	327	Geometric Regression
534	723	Group-Sequential Analysis for One Hazard Rate
517	730	Group-Sequential Analysis for One Mean with Known Variance
531	743	Group-Sequential Analysis for One Poisson Rate
525	713	Group-Sequential Analysis for One Proportion
503	720	Group-Sequential Analysis for Two Hazard Rates
500	700	Group-Sequential Analysis for Two Means with Known Variances
528	740	Group-Sequential Analysis for Two Poisson Rates
502	710	Group-Sequential Analysis for Two Proportions
535	724	Group-Sequential Non-Inferiority Analysis for One Hazard Rate
519	732	Group-Sequential Non-Inferiority Analysis for One Mean with Known Variance
532	744	Group-Sequential Non-Inferiority Analysis for One Poisson Rate
526	714	Group-Sequential Non-Inferiority Analysis for One Proportion
510	721	Group-Sequential Non-Inferiority Analysis for Two Hazard Rates
504	702	Group-Sequential Non-Inferiority Analysis for Two Means with Known Variances
529	741	Group-Sequential Non-Inferiority Analysis for Two Poisson Rates
508	711	Group-Sequential Non-Inferiority Analysis for Two Proportions
523	734	Group-Sequential Non-Inferiority T-Tests for One Mean
506	704	Group-Sequential Non-Inferiority T-Tests for Two Means
536	725	Group-Sequential Superiority by a Margin Analysis for One Hazard Rate
522	733	Group-Sequential Superiority by a Margin Analysis for One Mean with Known Variance
533	745	Group-Sequential Superiority by a Margin Analysis for One Poisson Rate
527	715	Group-Sequential Superiority by a Margin Analysis for One Proportion
516	722	Group-Sequential Superiority by a Margin Analysis for Two Hazard Rates
505	703	Group-Sequential Superiority by a Margin Analysis for Two Means with Known Variances
530	742	Group-Sequential Superiority by a Margin Analysis for Two Poisson Rates

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Proc. #	Chapter #	Name
509	712	Group-Sequential Superiority by a Margin Analysis for Two Proportions
524	735	Group-Sequential Superiority by a Margin T-Tests for One Mean
507	705	Group-Sequential Superiority by a Margin T-Tests for Two Means
518	731	Group-Sequential T-Tests for One Mean
501	701	Group-Sequential T-Tests for Two Means
311	203	Grubbs' Outlier Test
346	144	Half-Normal Probability Plots
318	460	Harmonic Regression
6	445	Hierarchical Clustering / Dendrograms
78	143	Histograms
176	151	Histograms - Comparative
115	151	Histograms - Comparative (2 Factors)
155	405	Hotelling's One-Sample T2
154	410	Hotelling's Two-Sample T2
372	602	Hybrid Appraisal Models
171	487	Hybrid Appraisal Models (Old Version)
329	241	Individuals and Moving Range Charts
49	505	Item Analysis
50	506	Item Response Analysis
150	555	Kaplan-Meier Curves (Logrank Tests)
8	446	K-Means Clustering
333	164	Lag Plots
99	263	Latin Square Designs
187	252	Levey-Jennings Charts
151	570	Life-Table Analysis
118	146	Line Charts
119	146	Line Charts (2 Factors)
361	481	Linear Programming with Bounds
84	480	Linear Programming with Tableau
540	300	Linear Regression and Correlation
153	299	Linear Regression and Correlation (Old Version)
121	301	Lin's Concordance Correlation Coefficient
390	321	Logistic Regression
161	320	Logistic Regression (Old Version)
3	530	Loglinear Models
347	144	Log-Normal Probability Plots
70	525	Mantel-Haenszel Test
368	491	Maximum Flow
152	317	Mediation Analysis
9	447	Medoid Partitioning
260	121	Merging Two Datasets
179	457	Meta-Analysis of Correlated Proportions
181	458	Meta-Analysis of Hazard Ratios
180	455	Meta-Analysis of Means (Old Version)
178	456	Meta-Analysis of Proportions (Old Version)
542	452	Meta-Analysis of Standardized Mean Differences
541	453	Meta-Analysis of Two Means
539	454	Meta-Analysis of Two Proportions

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Proc. #	Chapter #	Name
550	352	Michaelis-Menten Model Fit - Y vs One X
369	492	Minimum Cost Capacitated Flow
366	478	Minimum Spanning Tree
362	482	Mixed Integer Programming
288	220	Mixed Models - General
201	221	Mixed Models - No Repeated Measures
203	223	Mixed Models - Random Coefficients
202	222	Mixed Models - Repeated Measures
120	147	Mosaic Plots
327	248	Moving Average Charts
52	435	Multidimensional Scaling
157	305	Multiple Regression
382	304	Multiple Regression - Basic
156	309	Multiple Regression (Old Version)
373	603	Multiple Regression for Appraisal
286	306	Multiple Regression with Serial Correlation
4	415	Multivariate Analysis of Variance (MANOVA)
383	326	Negative Binomial Regression
262	240	Nondetects-Data Group Comparison
263	345	Nondetects-Data Regression
15	315	Nonlinear Regression
340	144	Normal Probability Plots
331	194	Normality Tests
353	257	NP Charts
57	510	One Proportion
420	513	One Proportion - Equivalence Tests
418	511	One Proportion - Non-Inferiority Tests
419	512	One Proportion - Superiority by a Margin Tests
377	546	One ROC Curve and Cutoff Analysis
51	205	One-Sample T-Test
413	218	One-Sample T-Test for Equivalence
411	216	One-Sample T-Test for Non-Inferiority
412	217	One-Sample T-Test for Superiority by a Margin
429	225	One-Way Analysis of Covariance (ANCOVA)
5	210	One-Way Analysis of Variance
376	239	Operating Characteristic Curves for Acceptance Sampling for Attributes
352	251	P Charts
21	208	Paired T-Test
312	202	Paired T-Test for Equivalence
313	199	Paired T-Test for Non-Inferiority
410	215	Paired T-Test for Superiority by a Margin
103	566	Parametric Survival (Weibull) Regression
63	253	Pareto Charts
395	313	Passing-Bablok Regression for Method Comparison
79	153	Percentile Plots
113	153	Percentile Plots (2 Factors)
89	142	Pie Charts
303	302	Point-Biserial and Biserial Correlations

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Proc. #	Chapter #	Name
160	325	Poisson Regression
547	376	Polynomial Model Fit - Y vs Multiple X's
543	375	Polynomial Model Fit - Y vs One X
546	371	Polynomial Model Search - Y vs Multiple X's
545	370	Polynomial Model Search - Y vs One X
53	425	Principal Components Analysis
98	340	Principal Components Regression
348	144	Probability Plot Comparison
83	575	Probit Analysis
363	483	Quadratic Programming
85	254	R & R Study
324	245	R Charts
511	269	Randomization Lists
552	586	Reference Intervals
10	449	Regression Clustering
108	214	Repeated Measures Analysis of Variance
30	264	Response Surface Designs
28	330	Response Surface Regression
97	335	Ridge Regression
396	314	Robust Linear Regression (Passing-Bablok Median-Slope)
158	308	Robust Regression
182	545	ROC Curves (Old Version)
325	246	s Charts
107	162	Scatter Plot Matrix
19	163	Scatter Plot Matrix for Curve Fitting
81	161	Scatter Plots
387	165	Scatter Plots with Error Bars
388	166	Scatter Plots with Error Bars from Summary Data
31	265	Screening Designs
367	490	Shortest Route
512	125	Simple Random Sampling
514	127	Simple Random Sampling with Group Assignment
42	468	Spectral Analysis
319	196	Stem-and-Leaf Plots
61	311	Stepwise Regression
513	126	Stratified Random Sampling
515	128	Stratified Random Sampling with Group Assignment
159	307	Subset Selection in Multiple Regression
58	310	Subset Selection in Multivariate Y Multiple Regression
551	380	Sum of Functions (of X) Model Fit - Y vs One X
32	266	Taguchi Designs
43	475	Theoretical ARMA
184	580	Time Calculator
186	585	Tolerance Intervals
364	484	Transportation
380	493	Transshipment
350	519	Two Correlated Proportions - Equivalence Tests
351	519	Two Correlated Proportions - Non-Inferiority Tests

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Proc. #	Chapter #	Name
349	519	Two Correlated Proportions - Superiority by a Margin Tests
339	520	Two Correlated Proportions (McNemar Test)
332	514	Two Proportions
338	516	Two Proportions - Equivalence Tests
335	516	Two Proportions - Non-Inferiority Tests
336	516	Two Proportions - Superiority by a Margin Tests
337	516	Two Proportions - Two-Sided Tests vs a Margin
33	260	Two-Level Designs
423	569	Two-Sample Equivalence Tests for Survival Data using Cox Regression
421	567	Two-Sample Non-Inferiority Tests for Survival Data using Cox Regression
422	568	Two-Sample Superiority by a Margin Tests for Survival Data using Cox Regression
12	206	Two-Sample T-Test
317	197	Two-Sample T-Test for Equivalence
316	198	Two-Sample T-Test for Non-Inferiority
414	219	Two-Sample T-Test for Superiority by a Margin
16	207	Two-Sample T-Test from Means and SD's
385	316	Two-Stage Least Squares
355	259	U Charts
342	144	Uniform Probability Plots
520	157	Violin Plots
521	157	Violin Plots (2 Factors)
341	144	Weibull Probability Plots
321	242	X-bar and R Charts
322	243	X-bar and s Charts
323	244	X-bar Charts
386	328	Zero-Inflated Negative Binomial Regression
389	329	Zero-Inflated Poisson Regression

List of Procedures Sorted by Procedure Number

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Proc. #	Chapter #	Name
1	211	Balanced Design Analysis of Variance
2	212	General Linear Models (GLM)
3	530	Loglinear Models
4	415	Multivariate Analysis of Variance (MANOVA)
5	210	One-Way Analysis of Variance
6	445	Hierarchical Clustering / Dendrograms
7	448	Fuzzy Clustering
8	446	K-Means Clustering
9	447	Medoid Partitioning
10	449	Regression Clustering
11	160	Function Plots
12	206	Two-Sample T-Test
15	315	Nonlinear Regression
16	207	Two-Sample T-Test from Means and SD's
19	163	Scatter Plot Matrix for Curve Fitting
21	208	Paired T-Test
23	118	Data Screening
24	200	Descriptive Statistics
27	213	Analysis of Two-Level Designs
28	330	Response Surface Regression
29	261	Fractional Factorial Designs
30	264	Response Surface Designs
31	265	Screening Designs
32	266	Taguchi Designs
33	260	Two-Level Designs
34	471	ARIMA (Box-Jenkins)
35	472	Autocorrelations
36	474	Automatic ARMA
37	473	Cross-Correlations
38	469	Decomposition Forecasting
39	465	Exponential Smoothing - Horizontal
40	466	Exponential Smoothing - Trend
41	467	Exponential Smoothing - Trend / Seasonal
42	468	Spectral Analysis
43	475	Theoretical ARMA
44	400	Canonical Correlation
45	430	Correspondence Analysis
46	440	Discriminant Analysis
47	402	Equality of Covariance
48	420	Factor Analysis
49	505	Item Analysis

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Proc. #	Chapter #	Name
50	506	Item Response Analysis
51	205	One-Sample T-Test
52	435	Multidimensional Scaling
53	425	Principal Components Analysis
54	312	All Possible Regressions
57	510	One Proportion
58	310	Subset Selection in Multivariate Y Multiple Regression
61	311	Stepwise Regression
63	253	Pareto Charts
70	525	Mantel-Haenszel Test
74	152	Box Plots
75	172	Contour Plots
76	150	Dot Plots
78	143	Histograms
79	153	Percentile Plots
81	161	Scatter Plots
82	154	Density Plots
83	575	Probit Analysis
84	480	Linear Programming with Tableau
85	254	R & R Study
86	268	Design Generator
87	141	Bar Charts
88	155	Error-Bar Charts
89	142	Pie Charts
91	170	3D Scatter Plots
92	171	3D Surface Plots
93	117	Data List
96	485	Appraisal Ratios (Old Version)
97	335	Ridge Regression
98	340	Principal Components Regression
99	263	Latin Square Designs
100	552	Gamma Distribution Fitting
101	551	Beta Distribution Fitting
102	550	Distribution (Weibull) Fitting
103	566	Parametric Survival (Weibull) Regression
104	262	Balanced Incomplete Block Designs
105	267	D-Optimal Designs
106	390	Area Under Curve
107	162	Scatter Plot Matrix
108	214	Repeated Measures Analysis of Variance
109	141	Bar Charts (2 Factors)
110	152	Box Plots (2 Factors)
111	155	Error-Bar Charts (2 Factors)
112	150	Dot Plots (2 Factors)
113	153	Percentile Plots (2 Factors)
114	154	Density Plots (2 Factors)
115	151	Histograms - Comparative (2 Factors)
116	145	Combo Charts

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Proc. #	Chapter #	Name
117	145	Combo Charts (2 Factors)
118	146	Line Charts
119	146	Line Charts (2 Factors)
120	147	Mosaic Plots
121	301	Lin's Concordance Correlation Coefficient
136	486	Comparables - Sales Price (Old Version)
145	234	Analysis of 2x2 Cross-Over Designs using T-Tests
147	560	Cumulative Incidence
150	555	Kaplan-Meier Curves (Logrank Tests)
151	570	Life-Table Analysis
152	317	Mediation Analysis
153	299	Linear Regression and Correlation (Old Version)
154	410	Hotelling's Two-Sample T2
155	405	Hotelling's One-Sample T2
156	309	Multiple Regression (Old Version)
157	305	Multiple Regression
158	308	Robust Regression
159	307	Subset Selection in Multiple Regression
160	325	Poisson Regression
161	320	Logistic Regression (Old Version)
162	565	Cox Regression
164	501	Contingency Tables (Crosstabs / Chi-Square Test)
165	193	Descriptive Statistics - Summary Tables (Old Version)
166	500	Frequency Tables
171	487	Hybrid Appraisal Models (Old Version)
172	535	Binary Diagnostic Tests - Single Sample
173	537	Binary Diagnostic Tests - Two Independent Samples
174	536	Binary Diagnostic Tests - Paired Samples
175	538	Binary Diagnostic Tests - Clustered Samples
176	151	Histograms - Comparative
178	456	Meta-Analysis of Proportions (Old Version)
179	457	Meta-Analysis of Correlated Proportions
180	455	Meta-Analysis of Means (Old Version)
181	458	Meta-Analysis of Hazard Ratios
182	545	ROC Curves (Old Version)
184	580	Time Calculator
186	585	Tolerance Intervals
187	252	Levey-Jennings Charts
201	221	Mixed Models - No Repeated Measures
202	222	Mixed Models - Repeated Measures
203	223	Mixed Models - Random Coefficients
260	121	Merging Two Datasets
261	230	Circular Data Analysis
262	240	Nondetects-Data Group Comparison
263	345	Nondetects-Data Regression
282	450	Clustered Heat Maps (Double Dendrograms)
286	306	Multiple Regression with Serial Correlation
287	122	Data Simulation

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Proc. #	Chapter #	Name
288	220	Mixed Models - General
297	123	Data Matching - Optimal
298	124	Data Stratification
299	123	Data Matching - Greedy
300	190	Box-Cox Transformation
301	191	Box-Cox Transformation for Two or More Groups (T-Test and One-Way ANOVA)
302	192	Box-Cox Transformation for Simple Linear Regression
303	302	Point-Biserial and Biserial Correlations
305	521	Cochran's Q Test
307	204	Bland-Altman Plot and Analysis
308	303	Deming Regression
309	148	3D Bar Charts
310	148	3D Bar Charts (2 Factors)
311	203	Grubbs' Outlier Test
312	202	Paired T-Test for Equivalence
313	199	Paired T-Test for Non-Inferiority
314	149	3D Line Charts
315	149	3D Line Charts (2 Factors)
316	198	Two-Sample T-Test for Non-Inferiority
317	197	Two-Sample T-Test for Equivalence
318	460	Harmonic Regression
319	196	Stem-and-Leaf Plots
320	195	Back-to-Back Stem-and-Leaf Plots
321	242	X-bar and R Charts
322	243	X-bar and s Charts
323	244	X-bar Charts
324	245	R Charts
325	246	s Charts
326	247	CUSUM Charts
327	248	Moving Average Charts
328	249	EWMA Charts
329	241	Individuals and Moving Range Charts
330	255	Capability Analysis
331	194	Normality Tests
332	514	Two Proportions
333	164	Lag Plots
334	256	Analysis of Runs
335	516	Two Proportions - Non-Inferiority Tests
336	516	Two Proportions - Superiority by a Margin Tests
337	516	Two Proportions - Two-Sided Tests vs a Margin
338	516	Two Proportions - Equivalence Tests
339	520	Two Correlated Proportions (McNemar Test)
340	144	Normal Probability Plots
341	144	Weibull Probability Plots
342	144	Uniform Probability Plots
343	144	Exponential Probability Plots
344	144	Gamma Probability Plots
345	144	Chi-Square Probability Plots

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Proc. #	Chapter #	Name
346	144	Half-Normal Probability Plots
347	144	Log-Normal Probability Plots
348	144	Probability Plot Comparison
349	519	Two Correlated Proportions - Superiority by a Margin Tests
350	519	Two Correlated Proportions - Equivalence Tests
351	519	Two Correlated Proportions - Non-Inferiority Tests
352	251	P Charts
353	257	NP Charts
354	258	C Charts
355	259	U Charts
361	481	Linear Programming with Bounds
362	482	Mixed Integer Programming
363	483	Quadratic Programming
364	484	Transportation
365	479	Assignment
366	478	Minimum Spanning Tree
367	490	Shortest Route
368	491	Maximum Flow
369	492	Minimum Cost Capacitated Flow
370	600	Appraisal Ratio Studies
371	601	Comparables Appraisal
372	602	Hybrid Appraisal Models
373	603	Multiple Regression for Appraisal
374	295	Correlation
375	238	Acceptance Sampling for Attributes
376	239	Operating Characteristic Curves for Acceptance Sampling for Attributes
377	546	One ROC Curve and Cutoff Analysis
378	548	Comparing Two ROC Curves - Independent Groups Design
379	547	Comparing Two ROC Curves - Paired Design
380	493	Transshipment
381	564	Conditional Logistic Regression
382	304	Multiple Regression - Basic
383	326	Negative Binomial Regression
384	327	Geometric Regression
385	316	Two-Stage Least Squares
386	328	Zero-Inflated Negative Binomial Regression
387	165	Scatter Plots with Error Bars
388	166	Scatter Plots with Error Bars from Summary Data
389	329	Zero-Inflated Poisson Regression
390	321	Logistic Regression
391	156	Error-Bar Charts from Summary Data
392	156	Error-Bar Charts from Summary Data (2 Factors)
393	201	Descriptive Statistics - Summary Tables
395	313	Passing-Bablok Regression for Method Comparison
396	314	Robust Linear Regression (Passing-Bablok Median-Slope)
397	209	Descriptive Statistics - Summary Lists
398	231	Circular Data Correlation
410	215	Paired T-Test for Superiority by a Margin

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Proc. #	Chapter #	Name
411	216	One-Sample T-Test for Non-Inferiority
412	217	One-Sample T-Test for Superiority by a Margin
413	218	One-Sample T-Test for Equivalence
414	219	Two-Sample T-Test for Superiority by a Margin
415	235	Analysis of 2x2 Cross-Over Designs using T-Tests for Non-Inferiority
416	236	Analysis of 2x2 Cross-Over Designs using T-Tests for Superiority by a Margin
417	237	Analysis of 2x2 Cross-Over Designs using T-Tests for Equivalence
418	511	One Proportion - Non-Inferiority Tests
419	512	One Proportion - Superiority by a Margin Tests
420	513	One Proportion - Equivalence Tests
421	567	Two-Sample Non-Inferiority Tests for Survival Data using Cox Regression
422	568	Two-Sample Superiority by a Margin Tests for Survival Data using Cox Regression
423	569	Two-Sample Equivalence Tests for Survival Data using Cox Regression
424	270	Cluster Randomization - Create Cluster Means Dataset
425	271	Cluster Randomization - Create Cluster Proportions Dataset
426	272	Cluster Randomization - Create Cluster Rates Dataset
427	224	General Linear Models (GLM) for Fixed Factors
429	225	One-Way Analysis of Covariance (ANCOVA)
430	226	Analysis of Covariance (ANCOVA) with Two Groups
431	401	Correlation Matrix
500	700	Group-Sequential Analysis for Two Means with Known Variances
501	701	Group-Sequential T-Tests for Two Means
502	710	Group-Sequential Analysis for Two Proportions
503	720	Group-Sequential Analysis for Two Hazard Rates
504	702	Group-Sequential Non-Inferiority Analysis for Two Means with Known Variances
505	703	Group-Sequential Superiority by a Margin Analysis for Two Means with Known Variances
506	704	Group-Sequential Non-Inferiority T-Tests for Two Means
507	705	Group-Sequential Superiority by a Margin T-Tests for Two Means
508	711	Group-Sequential Non-Inferiority Analysis for Two Proportions
509	712	Group-Sequential Superiority by a Margin Analysis for Two Proportions
510	721	Group-Sequential Non-Inferiority Analysis for Two Hazard Rates
511	269	Randomization Lists
512	125	Simple Random Sampling
513	126	Stratified Random Sampling
514	127	Simple Random Sampling with Group Assignment
515	128	Stratified Random Sampling with Group Assignment
516	722	Group-Sequential Superiority by a Margin Analysis for Two Hazard Rates
517	730	Group-Sequential Analysis for One Mean with Known Variance
518	731	Group-Sequential T-Tests for One Mean
519	732	Group-Sequential Non-Inferiority Analysis for One Mean with Known Variance
520	157	Violin Plots
521	157	Violin Plots (2 Factors)
522	733	Group-Sequential Superiority by a Margin Analysis for One Mean with Known Variance
523	734	Group-Sequential Non-Inferiority T-Tests for One Mean
524	735	Group-Sequential Superiority by a Margin T-Tests for One Mean

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Proc. #	Chapter #	Name
525	713	Group-Sequential Analysis for One Proportion
526	714	Group-Sequential Non-Inferiority Analysis for One Proportion
527	715	Group-Sequential Superiority by a Margin Analysis for One Proportion
528	740	Group-Sequential Analysis for Two Poisson Rates
529	741	Group-Sequential Non-Inferiority Analysis for Two Poisson Rates
530	742	Group-Sequential Superiority by a Margin Analysis for Two Poisson Rates
531	743	Group-Sequential Analysis for One Poisson Rate
532	744	Group-Sequential Non-Inferiority Analysis for One Poisson Rate
533	745	Group-Sequential Superiority by a Margin Analysis for One Poisson Rate
534	723	Group-Sequential Analysis for One Hazard Rate
535	724	Group-Sequential Non-Inferiority Analysis for One Hazard Rate
536	725	Group-Sequential Superiority by a Margin Analysis for One Hazard Rate
537	109	Exporting Data to R
538	353	Curve Fitting - CDF
539	454	Meta-Analysis of Two Proportions
540	300	Linear Regression and Correlation
541	453	Meta-Analysis of Two Means
542	452	Meta-Analysis of Standardized Mean Differences
543	375	Polynomial Model Fit - Y vs One X
544	351	General (Custom and Preset) Model Fit - Y vs One X
545	370	Polynomial Model Search - Y vs One X
546	371	Polynomial Model Search - Y vs Multiple X's
547	376	Polynomial Model Fit - Y vs Multiple X's
548	381	Age-Specific Reference Intervals
549	382	Fractional Polynomial Regression - Y vs One X
550	352	Michaelis-Menten Model Fit - Y vs One X
551	380	Sum of Functions (of X) Model Fit - Y vs One X
552	586	Reference Intervals

List of Procedures Sorted by Documentation Chapter Number

The following is a list of all **NCSS** procedures (with Procedure Number, Documentation Chapter Number, and Name) sorted by documentation chapter number. Procedure settings files have the extension ***.t[Procedure Number]**, where [Procedure Number] is replaced by the number of the procedure given below.

Proc. #	Chapter #	Name
537	109	Exporting Data to R
93	117	Data List
23	118	Data Screening
260	121	Merging Two Datasets
287	122	Data Simulation
297	123	Data Matching - Optimal
299	123	Data Matching - Greedy
298	124	Data Stratification
512	125	Simple Random Sampling
513	126	Stratified Random Sampling
514	127	Simple Random Sampling with Group Assignment
515	128	Stratified Random Sampling with Group Assignment
87	141	Bar Charts
109	141	Bar Charts (2 Factors)
89	142	Pie Charts
78	143	Histograms
340	144	Normal Probability Plots
341	144	Weibull Probability Plots
342	144	Uniform Probability Plots
343	144	Exponential Probability Plots
344	144	Gamma Probability Plots
345	144	Chi-Square Probability Plots
346	144	Half-Normal Probability Plots
347	144	Log-Normal Probability Plots
348	144	Probability Plot Comparison
116	145	Combo Charts
117	145	Combo Charts (2 Factors)
118	146	Line Charts
119	146	Line Charts (2 Factors)
120	147	Mosaic Plots
309	148	3D Bar Charts
310	148	3D Bar Charts (2 Factors)
314	149	3D Line Charts
315	149	3D Line Charts (2 Factors)
76	150	Dot Plots
112	150	Dot Plots (2 Factors)
115	151	Histograms - Comparative (2 Factors)
176	151	Histograms - Comparative
74	152	Box Plots

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Proc. #	Chapter #	Name
110	152	Box Plots (2 Factors)
79	153	Percentile Plots
113	153	Percentile Plots (2 Factors)
82	154	Density Plots
114	154	Density Plots (2 Factors)
88	155	Error-Bar Charts
111	155	Error-Bar Charts (2 Factors)
391	156	Error-Bar Charts from Summary Data
392	156	Error-Bar Charts from Summary Data (2 Factors)
520	157	Violin Plots
521	157	Violin Plots (2 Factors)
11	160	Function Plots
81	161	Scatter Plots
107	162	Scatter Plot Matrix
19	163	Scatter Plot Matrix for Curve Fitting
333	164	Lag Plots
387	165	Scatter Plots with Error Bars
388	166	Scatter Plots with Error Bars from Summary Data
91	170	3D Scatter Plots
92	171	3D Surface Plots
75	172	Contour Plots
300	190	Box-Cox Transformation
301	191	Box-Cox Transformation for Two or More Groups (T-Test and One-Way ANOVA)
302	192	Box-Cox Transformation for Simple Linear Regression
165	193	Descriptive Statistics - Summary Tables (Old Version)
331	194	Normality Tests
320	195	Back-to-Back Stem-and-Leaf Plots
319	196	Stem-and-Leaf Plots
317	197	Two-Sample T-Test for Equivalence
316	198	Two-Sample T-Test for Non-Inferiority
313	199	Paired T-Test for Non-Inferiority
24	200	Descriptive Statistics
393	201	Descriptive Statistics - Summary Tables
312	202	Paired T-Test for Equivalence
311	203	Grubbs' Outlier Test
307	204	Bland-Altman Plot and Analysis
51	205	One-Sample T-Test
12	206	Two-Sample T-Test
16	207	Two-Sample T-Test from Means and SD's
21	208	Paired T-Test
397	209	Descriptive Statistics - Summary Lists
5	210	One-Way Analysis of Variance
1	211	Balanced Design Analysis of Variance
2	212	General Linear Models (GLM)
27	213	Analysis of Two-Level Designs
108	214	Repeated Measures Analysis of Variance
410	215	Paired T-Test for Superiority by a Margin
411	216	One-Sample T-Test for Non-Inferiority

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Proc. #	Chapter #	Name
412	217	One-Sample T-Test for Superiority by a Margin
413	218	One-Sample T-Test for Equivalence
414	219	Two-Sample T-Test for Superiority by a Margin
288	220	Mixed Models - General
201	221	Mixed Models - No Repeated Measures
202	222	Mixed Models - Repeated Measures
203	223	Mixed Models - Random Coefficients
427	224	General Linear Models (GLM) for Fixed Factors
429	225	One-Way Analysis of Covariance (ANCOVA)
430	226	Analysis of Covariance (ANCOVA) with Two Groups
261	230	Circular Data Analysis
398	231	Circular Data Correlation
145	234	Analysis of 2x2 Cross-Over Designs using T-Tests
415	235	Analysis of 2x2 Cross-Over Designs using T-Tests for Non-Inferiority
416	236	Analysis of 2x2 Cross-Over Designs using T-Tests for Superiority by a Margin
417	237	Analysis of 2x2 Cross-Over Designs using T-Tests for Equivalence
375	238	Acceptance Sampling for Attributes
376	239	Operating Characteristic Curves for Acceptance Sampling for Attributes
262	240	Nondetects-Data Group Comparison
329	241	Individuals and Moving Range Charts
321	242	X-bar and R Charts
322	243	X-bar and s Charts
323	244	X-bar Charts
324	245	R Charts
325	246	s Charts
326	247	CUSUM Charts
327	248	Moving Average Charts
328	249	EWMA Charts
352	251	P Charts
187	252	Levey-Jennings Charts
63	253	Pareto Charts
85	254	R & R Study
330	255	Capability Analysis
334	256	Analysis of Runs
353	257	NP Charts
354	258	C Charts
355	259	U Charts
33	260	Two-Level Designs
29	261	Fractional Factorial Designs
104	262	Balanced Incomplete Block Designs
99	263	Latin Square Designs
30	264	Response Surface Designs
31	265	Screening Designs
32	266	Taguchi Designs
105	267	D-Optimal Designs
86	268	Design Generator
511	269	Randomization Lists
424	270	Cluster Randomization - Create Cluster Means Dataset

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Proc. #	Chapter #	Name
425	271	Cluster Randomization - Create Cluster Proportions Dataset
426	272	Cluster Randomization - Create Cluster Rates Dataset
374	295	Correlation
153	299	Linear Regression and Correlation (Old Version)
540	300	Linear Regression and Correlation
121	301	Lin's Concordance Correlation Coefficient
303	302	Point-Biserial and Biserial Correlations
308	303	Deming Regression
382	304	Multiple Regression - Basic
157	305	Multiple Regression
286	306	Multiple Regression with Serial Correlation
159	307	Subset Selection in Multiple Regression
158	308	Robust Regression
156	309	Multiple Regression (Old Version)
58	310	Subset Selection in Multivariate Y Multiple Regression
61	311	Stepwise Regression
54	312	All Possible Regressions
395	313	Passing-Bablok Regression for Method Comparison
396	314	Robust Linear Regression (Passing-Bablok Median-Slope)
15	315	Nonlinear Regression
385	316	Two-Stage Least Squares
152	317	Mediation Analysis
161	320	Logistic Regression (Old Version)
390	321	Logistic Regression
160	325	Poisson Regression
383	326	Negative Binomial Regression
384	327	Geometric Regression
386	328	Zero-Inflated Negative Binomial Regression
389	329	Zero-Inflated Poisson Regression
28	330	Response Surface Regression
97	335	Ridge Regression
98	340	Principal Components Regression
263	345	Nondetects-Data Regression
544	351	General (Custom and Preset) Model Fit - Y vs One X
550	352	Michaelis-Menten Model Fit - Y vs One X
538	353	Curve Fitting - CDF
545	370	Polynomial Model Search - Y vs One X
546	371	Polynomial Model Search - Y vs Multiple X's
543	375	Polynomial Model Fit - Y vs One X
547	376	Polynomial Model Fit - Y vs Multiple X's
551	380	Sum of Functions (of X) Model Fit - Y vs One X
548	381	Age-Specific Reference Intervals
549	382	Fractional Polynomial Regression - Y vs One X
106	390	Area Under Curve
44	400	Canonical Correlation
431	401	Correlation Matrix
47	402	Equality of Covariance
155	405	Hotelling's One-Sample T2

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Proc. #	Chapter #	Name
154	410	Hotelling's Two-Sample T2
4	415	Multivariate Analysis of Variance (MANOVA)
48	420	Factor Analysis
53	425	Principal Components Analysis
45	430	Correspondence Analysis
52	435	Multidimensional Scaling
46	440	Discriminant Analysis
6	445	Hierarchical Clustering / Dendrograms
8	446	K-Means Clustering
9	447	Medoid Partitioning
7	448	Fuzzy Clustering
10	449	Regression Clustering
282	450	Clustered Heat Maps (Double Dendrograms)
542	452	Meta-Analysis of Standardized Mean Differences
541	453	Meta-Analysis of Two Means
539	454	Meta-Analysis of Two Proportions
180	455	Meta-Analysis of Means (Old Version)
178	456	Meta-Analysis of Proportions (Old Version)
179	457	Meta-Analysis of Correlated Proportions
181	458	Meta-Analysis of Hazard Ratios
318	460	Harmonic Regression
39	465	Exponential Smoothing - Horizontal
40	466	Exponential Smoothing - Trend
41	467	Exponential Smoothing - Trend / Seasonal
42	468	Spectral Analysis
38	469	Decomposition Forecasting
34	471	ARIMA (Box-Jenkins)
35	472	Autocorrelations
37	473	Cross-Correlations
36	474	Automatic ARMA
43	475	Theoretical ARMA
366	478	Minimum Spanning Tree
365	479	Assignment
84	480	Linear Programming with Tableau
361	481	Linear Programming with Bounds
362	482	Mixed Integer Programming
363	483	Quadratic Programming
364	484	Transportation
96	485	Appraisal Ratios (Old Version)
136	486	Comparables - Sales Price (Old Version)
171	487	Hybrid Appraisal Models (Old Version)
367	490	Shortest Route
368	491	Maximum Flow
369	492	Minimum Cost Capacitated Flow
380	493	Transshipment
166	500	Frequency Tables
164	501	Contingency Tables (Crosstabs / Chi-Square Test)
49	505	Item Analysis

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Proc. #	Chapter #	Name
50	506	Item Response Analysis
57	510	One Proportion
418	511	One Proportion - Non-Inferiority Tests
419	512	One Proportion - Superiority by a Margin Tests
420	513	One Proportion - Equivalence Tests
332	514	Two Proportions
335	516	Two Proportions - Non-Inferiority Tests
336	516	Two Proportions - Superiority by a Margin Tests
337	516	Two Proportions - Two-Sided Tests vs a Margin
338	516	Two Proportions - Equivalence Tests
349	519	Two Correlated Proportions - Superiority by a Margin Tests
350	519	Two Correlated Proportions - Equivalence Tests
351	519	Two Correlated Proportions - Non-Inferiority Tests
339	520	Two Correlated Proportions (McNemar Test)
305	521	Cochran's Q Test
70	525	Mantel-Haenszel Test
3	530	Loglinear Models
172	535	Binary Diagnostic Tests - Single Sample
174	536	Binary Diagnostic Tests - Paired Samples
173	537	Binary Diagnostic Tests - Two Independent Samples
175	538	Binary Diagnostic Tests - Clustered Samples
182	545	ROC Curves (Old Version)
377	546	One ROC Curve and Cutoff Analysis
379	547	Comparing Two ROC Curves - Paired Design
378	548	Comparing Two ROC Curves - Independent Groups Design
102	550	Distribution (Weibull) Fitting
101	551	Beta Distribution Fitting
100	552	Gamma Distribution Fitting
150	555	Kaplan-Meier Curves (Logrank Tests)
147	560	Cumulative Incidence
381	564	Conditional Logistic Regression
162	565	Cox Regression
103	566	Parametric Survival (Weibull) Regression
421	567	Two-Sample Non-Inferiority Tests for Survival Data using Cox Regression
422	568	Two-Sample Superiority by a Margin Tests for Survival Data using Cox Regression
423	569	Two-Sample Equivalence Tests for Survival Data using Cox Regression
151	570	Life-Table Analysis
83	575	Probit Analysis
184	580	Time Calculator
186	585	Tolerance Intervals
552	586	Reference Intervals
370	600	Appraisal Ratio Studies
371	601	Comparables Appraisal
372	602	Hybrid Appraisal Models
373	603	Multiple Regression for Appraisal
500	700	Group-Sequential Analysis for Two Means with Known Variances
501	701	Group-Sequential T-Tests for Two Means

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Proc. #	Chapter #	Name
504	702	Group-Sequential Non-Inferiority Analysis for Two Means with Known Variances
505	703	Group-Sequential Superiority by a Margin Analysis for Two Means with Known Variances
506	704	Group-Sequential Non-Inferiority T-Tests for Two Means
507	705	Group-Sequential Superiority by a Margin T-Tests for Two Means
502	710	Group-Sequential Analysis for Two Proportions
508	711	Group-Sequential Non-Inferiority Analysis for Two Proportions
509	712	Group-Sequential Superiority by a Margin Analysis for Two Proportions
525	713	Group-Sequential Analysis for One Proportion
526	714	Group-Sequential Non-Inferiority Analysis for One Proportion
527	715	Group-Sequential Superiority by a Margin Analysis for One Proportion
503	720	Group-Sequential Analysis for Two Hazard Rates
510	721	Group-Sequential Non-Inferiority Analysis for Two Hazard Rates
516	722	Group-Sequential Superiority by a Margin Analysis for Two Hazard Rates
534	723	Group-Sequential Analysis for One Hazard Rate
535	724	Group-Sequential Non-Inferiority Analysis for One Hazard Rate
536	725	Group-Sequential Superiority by a Margin Analysis for One Hazard Rate
517	730	Group-Sequential Analysis for One Mean with Known Variance
518	731	Group-Sequential T-Tests for One Mean
519	732	Group-Sequential Non-Inferiority Analysis for One Mean with Known Variance
522	733	Group-Sequential Superiority by a Margin Analysis for One Mean with Known Variance
523	734	Group-Sequential Non-Inferiority T-Tests for One Mean
524	735	Group-Sequential Superiority by a Margin T-Tests for One Mean
528	740	Group-Sequential Analysis for Two Poisson Rates
529	741	Group-Sequential Non-Inferiority Analysis for Two Poisson Rates
530	742	Group-Sequential Superiority by a Margin Analysis for Two Poisson Rates
531	743	Group-Sequential Analysis for One Poisson Rate
532	744	Group-Sequential Non-Inferiority Analysis for One Poisson Rate
533	745	Group-Sequential Superiority by a Margin Analysis for One Poisson Rate