

# Sensory Computer Systems

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## **Description of the modules of the SIMS software system**

1. SIMS Designer
2. SIMS Data Collector
3. SIMS Basic Analysis
4. SIMS Advanced Analysis
5. SIMS Advanced Graphics

SIMS software has always been licensed as "SIMS Software Designers" and "SIMS Software Data Collectors".

"Designers" means any technician and/or professional user who needs to use SIMS for various activities, such as setting up questionnaires, experimental designs, starting tests, reporting, etc.

"Data Collectors" are simply your panelist PCs/Booths.

One way to think of a data collector user in contrast to designer users is that a data collector user station is just that, a data collector, just collecting test data, a panelist booth/table PC. All other SIMS activities are always performed by a Sensory professional and/or technician using a designer user license, such as ballot/questionnaire setups, experimental designs, test execution, test polling, panelist maintenance, statistical analysis, reports, etc.

All client sites need at least one SIMS Designer license and one Data Collector license. Our software licensing is 'concurrent', which is more advantageous to you the client, most flexible and economical.

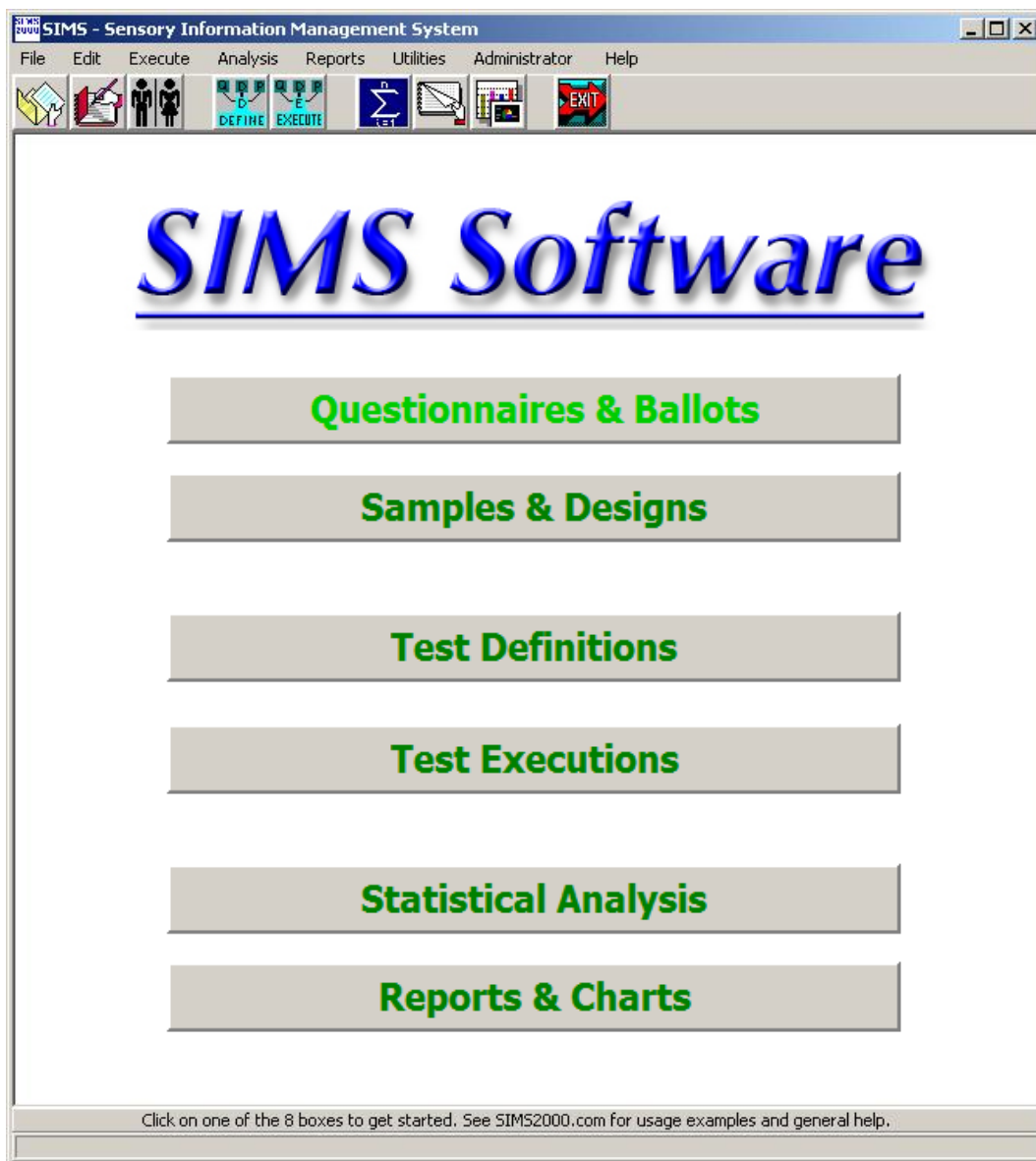
"Concurrent" means we don't need to count how many of your technicians have SIMS installed on their PCs, but we do care about how many need to use the application concurrently at the same time. The database keeps tabs on number of active designer users.

The cost of every license after the first of each type is steeply discounted which allows us to focus our customer base on established Sensory and Market Research organizations.

# 1. SIMS Designer - Main Menu Screen

Technicians Only. Design and prepare all aspects of your SIMS sensory tests. Ballots & questionnaires, experimental designs, sample rotations, blinding codes, panelist selections, test definitions, avery labels generation, test executions, reports, statistics, graphics.

Panelists are never in these main areas of the SIMS Software program.



## 2. SIMS Data Collector - Main Screen

Panelists Only. This is the panelists test Signin screen. There is also a similar Anonymous panelist welcome screen which does not need a Signin. Technicians can also access these areas.

After this screen panelists are presented with your SIMS ballot / questionnaire.

The screenshot shows a software window titled "SIMS - Location: Affective Room 1 Station: 1". The main content area has a blue header with the text "Please Enter Your Panelist Number #" and "or your Email Address" below it. A text input field is positioned below the header. A large green "Accept" button is centered below the input field. Below the "Accept" button are two buttons: "Exit" (with red text) and "Erase". At the bottom, there is a numeric keypad with buttons for digits 1 through 0, and a green "Lookup" button to its right.

SIMS - Location: Affective Room 1 Station: 1

Please Enter Your Panelist Number #  
or your Email Address

**Accept**

Exit Erase

Lookup

1 2 3 4 5  
6 7 8 9 0

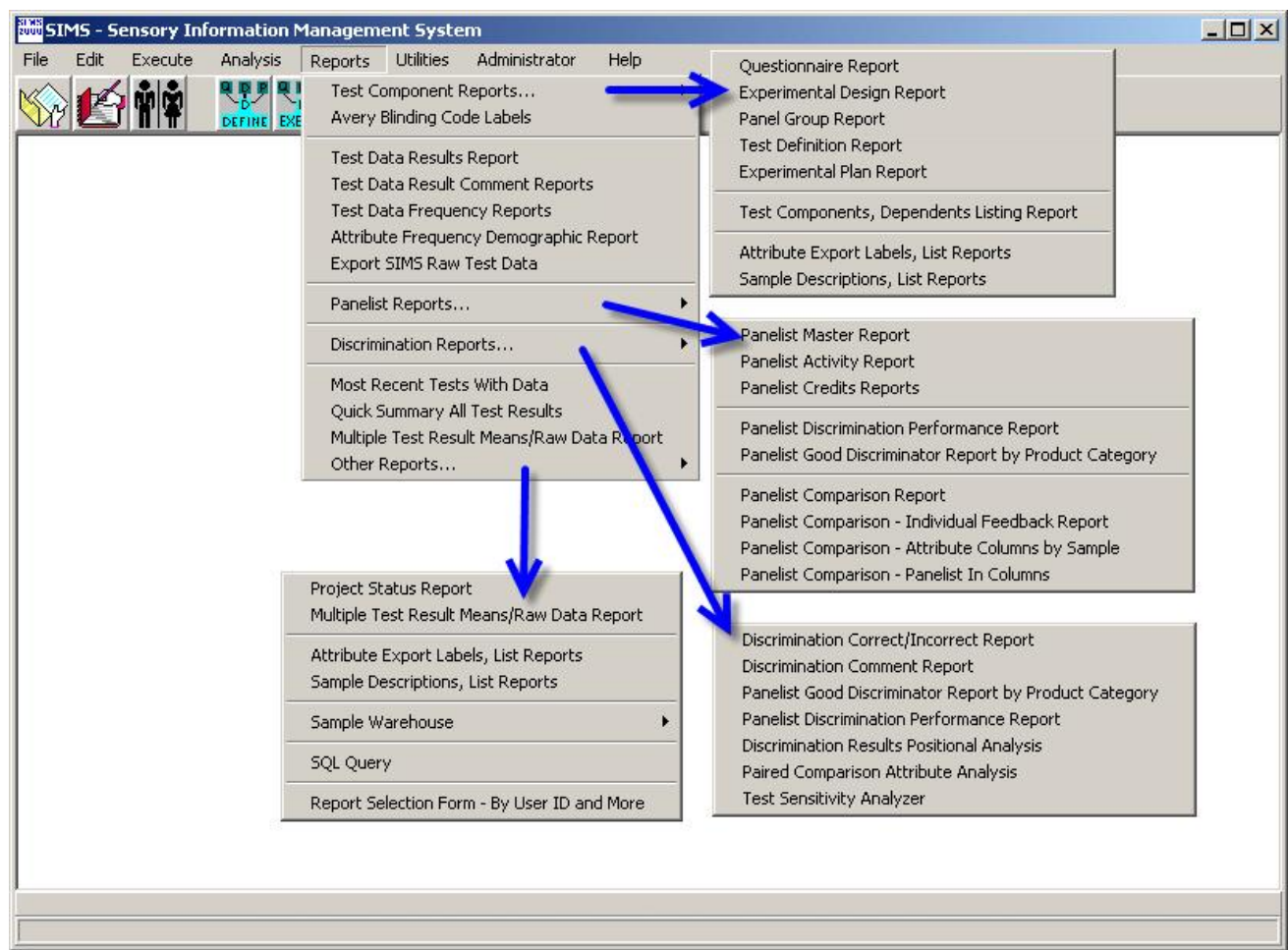
### 3. SIMS Basic Analysis

Technicians Only.

All Reports, not inclusive of statistics.

The value and convenience of many of our reports is impressive and widely popular with all of our clients, everyday! Additional information is available at <http://www.SIMS2000.com/Reports.asp>

Parts of these reports may include statistics, which will be included if Advanced Analysis is available.



# SIMS Basic Analysis

Many examples of these reports are available at <http://www.SIMS2000.com/Reports.asp>

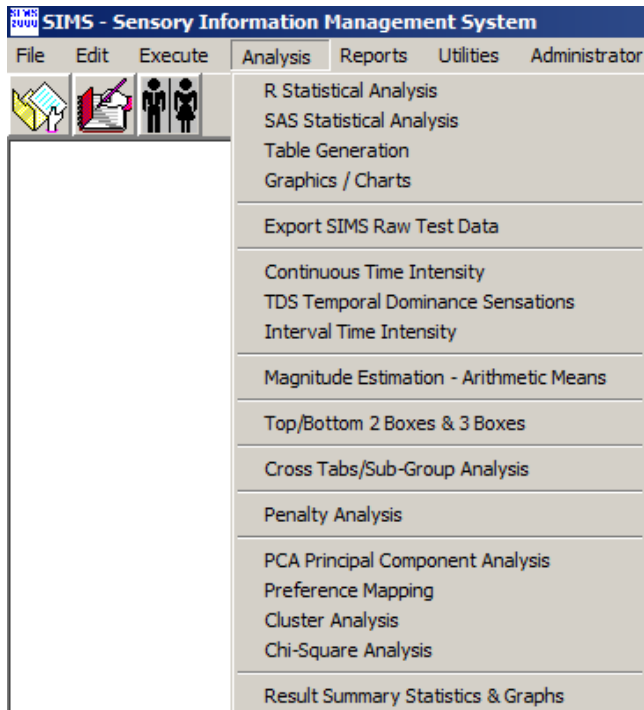
Including Data Frequency Report, Quick Summary Basic Stats, Panelist Comparison Reports, Panelist Immediate Feedback Reports, Panelist Credits Tracking Reports, Hedonic Frequency Reports, Hedonic Frequency Report Graphics, Penalty Analysis, Top 2, Bottom 2, Top 3 & Bottom 3 Box Analysis, CrossTabs/Sub-Group Analysis, Continuous Time Intensity Output, Test Sensitivity Analyzer, Paired Comparison Attribute Analysis Reports, and many others.

Raw Data Example: Exporting Raw Test Data to a variety of formats is available, including MS Excel and external statistical packages. This export capability is included with the SIMS Designer license.

	Rep	Block	Judge	Sample	Sample Description	Order	APPEARANCE LIKING	SIZE JAR	OVERALL LIKING	OVERALL FLAVOR LIKING	SWEET JAR	SOUR JAR	SALTINESS JAR	OVERALL TEXTURE LIKING	TENDERNESS JAR
2	1	21	ANONYMOUS001	4	Low Fat Dessert (457)	1	6	3	6	6	3	4	3	6	3
3	1	21	ANONYMOUS001	2	Healthy Dessert (235)	2	7	3	7	7	2	3	3	6	3
4	1	21	ANONYMOUS001	1	Control Dessert (124)	3	7	2	6	6	4	2	3	6	2
5	1	21	ANONYMOUS001	3	Low Cal Dessert (346)	4	8	3	8	8	3	3	3	8	3
6	1	19	ANONYMOUS002	4	Low Fat Dessert (457)	1	4	3	6	6	2	1	3	5	4
7	1	19	ANONYMOUS002	1	Control Dessert (124)	2	7	1	8	8	3	2	3	8	3
8	1	19	ANONYMOUS002	2	Healthy Dessert (235)	3	4	3	7	6	2	2	3	4	2
9	1	19	ANONYMOUS002	3	Low Cal Dessert (346)	4	8	3	6	3	2	1	3	4	3
10	1	14	ANONYMOUS003	3	Low Cal Dessert (346)	1	7	3	7	7	2	3	3	8	3
11	1	14	ANONYMOUS003	1	Control Dessert (124)	2	5	2	3	3	3	3	4	2	4
12	1	14	ANONYMOUS003	4	Low Fat Dessert (457)	3	3	3	1	2	2	1	3	1	1
13	1	14	ANONYMOUS003	2	Healthy Dessert (235)	4	4	3	6	6	3	3	3	6	3
14	1	23	ANONYMOUS004	4	Low Fat Dessert (457)	1	5	3	5	7	3	3	3	5	4
15	1	23	ANONYMOUS004	3	Low Cal Dessert (346)	2	5	3	8	8	3	2	3	5	3
16	1	23	ANONYMOUS004	1	Control Dessert (124)	3	4	2	4	3	4	3	4	3	4
17	1	23	ANONYMOUS004	2	Healthy Dessert (235)	4	2	3	5	3	2	2	2	3	2
18	1	15	ANONYMOUS005	3	Low Cal Dessert (346)	1	7	3	7	6	2	2	3	6	4
19	1	15	ANONYMOUS005	2	Healthy Dessert (235)	2	6	3	6	4	1	2	2	4	4
20	1	15	ANONYMOUS005	1	Control Dessert (124)	3	8	2	8	7	3	3	3	8	4
21	1	15	ANONYMOUS005	4	Low Fat Dessert (457)	4	4	3	4	4	2	2	3	4	3
22	1	2	ANONYMOUS006	1	Control Dessert (124)	1	4	2	3	3	1	3	3	3	5
23	1	2	ANONYMOUS006	2	Healthy Dessert (235)	2	6	3	6	7	3	3	3	4	3
24	1	2	ANONYMOUS006	4	Low Fat Dessert (457)	3	6	3	2	2	1	1	2	1	5
25	1	2	ANONYMOUS006	3	Low Cal Dessert (346)	4	9	3	9	9	3	3	3	8	3
26	1	18	ANONYMOUS007	3	Low Cal Dessert (346)	1	5	3	7	5	2	3	3	5	3
27	1	18	ANONYMOUS007	4	Low Fat Dessert (457)	2	2	3	5	4	2	2	4	5	4
28	1	18	ANONYMOUS007	2	Healthy Dessert (235)	3	7	3	6	7	3	2	3	4	1
29	1	18	ANONYMOUS007	1	Control Dessert (124)	4	3	2	1	2	1	2	3	2	5
30	1	12	ANONYMOUS008	2	Healthy Dessert (235)	1	7	3	7	7	3	1	3	7	3
31	1	12	ANONYMOUS008	3	Low Cal Dessert (346)	2	8	3	8	9	3	2	3	8	3
32	1	12	ANONYMOUS008	4	Low Fat Dessert (457)	3	7	3	3	5	2	4	3	1	5
33	1	12	ANONYMOUS008	1	Control Dessert (124)	4	4	2	3	4	1	4	5	6	3
34	1	5	ANONYMOUS009	1	Control Dessert (124)	1	7	3	6	6	3	3	3	4	4
35	1	5	ANONYMOUS009	4	Low Fat Dessert (457)	2	4	3	5	6	3	4	5	3	3
36	1	5	ANONYMOUS009	2	Healthy Dessert (235)	3	8	3	6	6	2	4	3	5	3
37	1	5	ANONYMOUS009	3	Low Cal Dessert (346)	4	8	4	7	7	3	3	3	6	2
38	1	4	ANONYMOUS010	1	Control Dessert (124)	1	7	3	8	7	3	3	3	6	3
39	1	4	ANONYMOUS010	3	Low Cal Dessert (346)	2	6	4	8	8	3	2	3	8	3
40	1	4	ANONYMOUS010	4	Low Fat Dessert (457)	3	4	4	4	5	2	2	3	3	4
41	1	4	ANONYMOUS010	2	Healthy Dessert (235)	4	4	4	4	4	2	2	4	2	2
42	1	10	ANONYMOUS011	2	Healthy Dessert (235)	1	6	3	5	5	3	3	3	7	3
43	1	10	ANONYMOUS011	4	Low Fat Dessert (457)	2	3	2	6	5	2	3	4	7	3
44	1	10	ANONYMOUS011	3	Low Cal Dessert (346)	3	7	3	8	7	4	3	4	6	3

## 4. SIMS Advanced Analysis

Technicians Only.



All Statistical Reports.

SIMS utilizes R Statistics, SAS, JMP, or Microsoft Excel for all Advanced Analysis, leading to Means, P-Values, Significances, Mean Separations. PCA, Prefmap, Cluster, etc.

The image shows the SIMS - Statistical Analysis: SCS-EXAMP1 window. The window has a blue title bar with the text "SIMS - Statistical Analysis: SCS-EXAMP1 Affective, Samples=4, Pans=72 Anonymous". Below the title bar are several tabs: "SAS Analysis Options", "R Analysis Options", "Excel Analysis Options", "JMP Analysis Options", and "View Analysis Files". The "SAS Analysis Options" tab is selected. The window contains several sections for configuring statistical analysis options. The "Choose a Test Data Result Code:" section has a dropdown menu set to "SCS-EXAMP1 - Example Dessert Snacks - See Stats & Reports" and a "Records: 7" label. The "Comparison of Mean Scores: (complete block)" section has radio buttons for "Duncan's Multiple Range Test", "Tukey's Studentized Range (HSD) Test", "Dunnett's T Test", and "Fisher's Least Significant Difference (LSD) Test". The "Significance Levels:" section has a table with three rows: "0.05 95%", "0.01 99%", and "0.001 99.9%". The "Binomial Analysis Type:" section has radio buttons for "Alpha One Tailed Analysis", "Alpha Two Tailed Analysis", and "Beta Analysis". The "Other Analysis Options:" section has several checkboxes, including "Use The Nested Model", "Use The Judge \* Sample Interactions Model", "Use One-Way Model Between Samples", "Include Order Effect", "Incorporate Panelist Consistency Over Reps", "Create Additional 'Least Squares Contrast' Output", "Null Hedonic Responses when Choice:", "Drop Demographic Attributes", "Drop ATA & YN Attributes", "Drop Just About Right JAR Scales", "Include Result Code with Sample Description", "Drop the Rows for the Column Designations Letters", "Column Designations Format Market Research", "CAPITAL letters for \*\* and \*\*\* pvalue sample pairs.", "Drop Frequency output from SAS Listing File", and "Create SAS SAS7BDAT (SD2) File". There are also buttons for "Other Analysis Notes", "Data Subsets", "Continue", "Result Summary Stats & Graphs", "Exit Statistics", "Statistics Notes", "Questionnaire Summary", and "Quick Summary All Results Codes".

# SIMS Advanced Analysis

Top Line Report showing Means, P-Values, Significances, Mean Separations

Attribute	Control Dessert	Healthy Dessert	Low Cal Dessert	Low Fat Desset	P-Value	Sig
APPEARANCE LIKING	6.7 <sup>a</sup>	5.5 <sup>b</sup>	7.0 <sup>a</sup>	5.6 <sup>b</sup>	0.0001	***
SIZE JAR	2.0 <sup>c</sup>	2.9 <sup>b</sup>	3.1 <sup>a</sup>	3.0 <sup>b</sup>	0.0001	***
OVERALL LIKING	5.2 <sup>bc</sup>	5.8 <sup>b</sup>	7.3 <sup>a</sup>	5.0 <sup>c</sup>	0.0001	***
OVERALL FLAVOR LIKING	5.2 <sup>c</sup>	6.0 <sup>b</sup>	7.1 <sup>a</sup>	5.1 <sup>c</sup>	0.0001	***
SWEET JAR	2.5 <sup>ab</sup>	2.5 <sup>bc</sup>	2.8 <sup>a</sup>	2.2 <sup>c</sup>	0.0012	**
SOUR JAR	2.7 <sup>a</sup>	2.6 <sup>ab</sup>	2.5 <sup>b</sup>	2.8 <sup>a</sup>	0.0826	NS
SALTINESS JAR	3.2 <sup>b</sup>	3.1 <sup>b</sup>	3.0 <sup>a</sup>	3.2 <sup>b</sup>	0.0361	*
OVERALL TEXTURE LIKING	4.5 <sup>a</sup>	4.9 <sup>c</sup>	6.8 <sup>c</sup>	4.3 <sup>b</sup>	0.0001	***
TENDERNESS JAR	3.8 <sup>b</sup>	2.8 <sup>ab</sup>	2.8 <sup>a</sup>	3.1 <sup>a</sup>	0.0001	***
MOISTNESS JAR	2.9 <sup>a</sup>	3.0 <sup>b</sup>	3.1 <sup>a</sup>	3.1 <sup>b</sup>	0.0460	*
FILLING LIKING	6.7 <sup>b</sup>	4.3 <sup>b</sup>	6.3 <sup>b</sup>	4.5 <sup>a</sup>	0.0001	***
TEXTURE FILLING JAR	3.1 <sup>b</sup>	3.2 <sup>b</sup>	3.2 <sup>b</sup>	3.7 <sup>a</sup>	0.0001	***
AMOUNT OF FILLING JAR	3.0 <sup>b</sup>	3.1 <sup>b</sup>	3.1 <sup>b</sup>	3.4 <sup>a</sup>	0.0050	**
AFTERTASTE	3.1 <sup>bc</sup>	3.4 <sup>b</sup>	3.8 <sup>a</sup>	3.0 <sup>c</sup>	0.0001	***
OVERALL QUALITY	2.5 <sup>b</sup>	2.5 <sup>b</sup>	3.6 <sup>a</sup>	2.1 <sup>b</sup>	0.0001	***

Exit
Export Table To MS Word
Export Table To MS Excel
Result Summary Stats & Graphs
Legacy Graphs/Charts

Attribute Controls:

Move Up
Drop/Remove
Sort by Attribute Name

Move Down
Insert a Row
Reset

Edit Description/Font
APPEARANCE LIKING

Column Controls:

Move Left
Drop/Remove
All Cols Width

Move Right
Drop the 0 Cols
CurrCol Width

Edit Description/Font
Attribute
☐ Show separation letters on same row

Page Header
Page Footer

Printing via SIMS
☒ Portrait
☐ Landscape
Print

Header Row Height

Top 2 Bottom 2 Report showing Counts, percentages, P-Values, Significances, Mean Separations

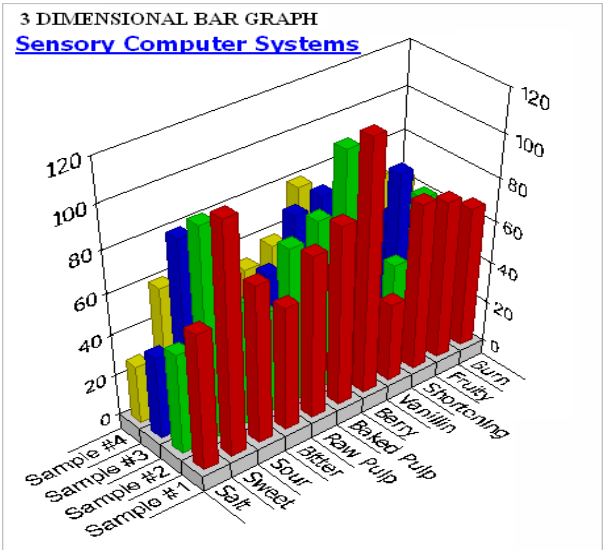
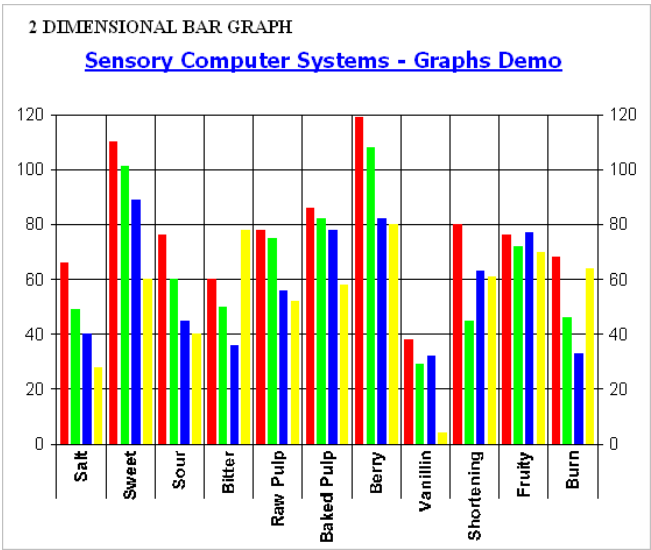
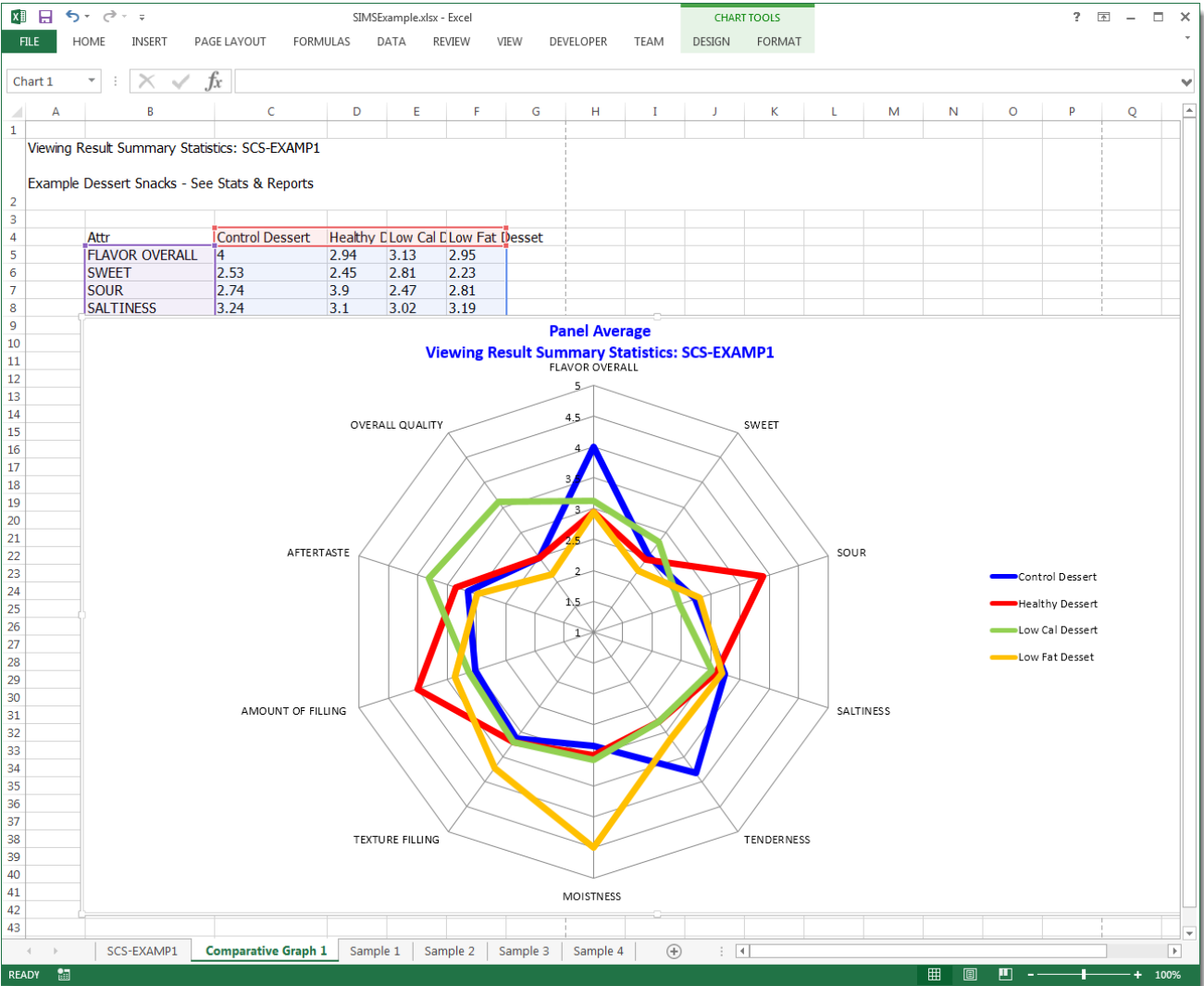
Attribute	Control Dessert	Healthy Dessert	Low Cal Dessert	Low Fat Desset	P-Value	Sig
OVERALL FLAVOR LIKING T2	12(19%) <sup>b</sup>	15(24%) <sup>b</sup>	35(56%) <sup>a</sup>	9(15%) <sup>b</sup>	0.0001	***
OVERALL FLAVOR LIKING B2	6(10%) <sup>b</sup>	4(6%) <sup>bc</sup>	2(3%) <sup>a</sup>	4(6%) <sup>c</sup>	0.5185	NS
OVERALL TEXTURE LIKING T2	11(18%) <sup>a</sup>	6(10%) <sup>a</sup>	29(47%) <sup>b</sup>	3(5%) <sup>a</sup>	0.0001	***
OVERALL TEXTURE LIKING B2	12(19%) <sup>b</sup>	9(15%) <sup>b</sup>	1(2%) <sup>a</sup>	10(16%) <sup>b</sup>	0.0120	**
OVERALL QUALITY T2	14(23%) <sup>a</sup>	13(21%) <sup>a</sup>	35(56%) <sup>b</sup>	7(11%) <sup>a</sup>	0.0001	***
OVERALL QUALITY B2	38(61%) <sup>a</sup>	35(56%) <sup>a</sup>	8(13%) <sup>b</sup>	42(68%) <sup>a</sup>	0.0001	***

Exit
Export Table To MS Word
Export Table To MS Excel
Result Summary Stats & Graphs
Legacy Graphs/Charts



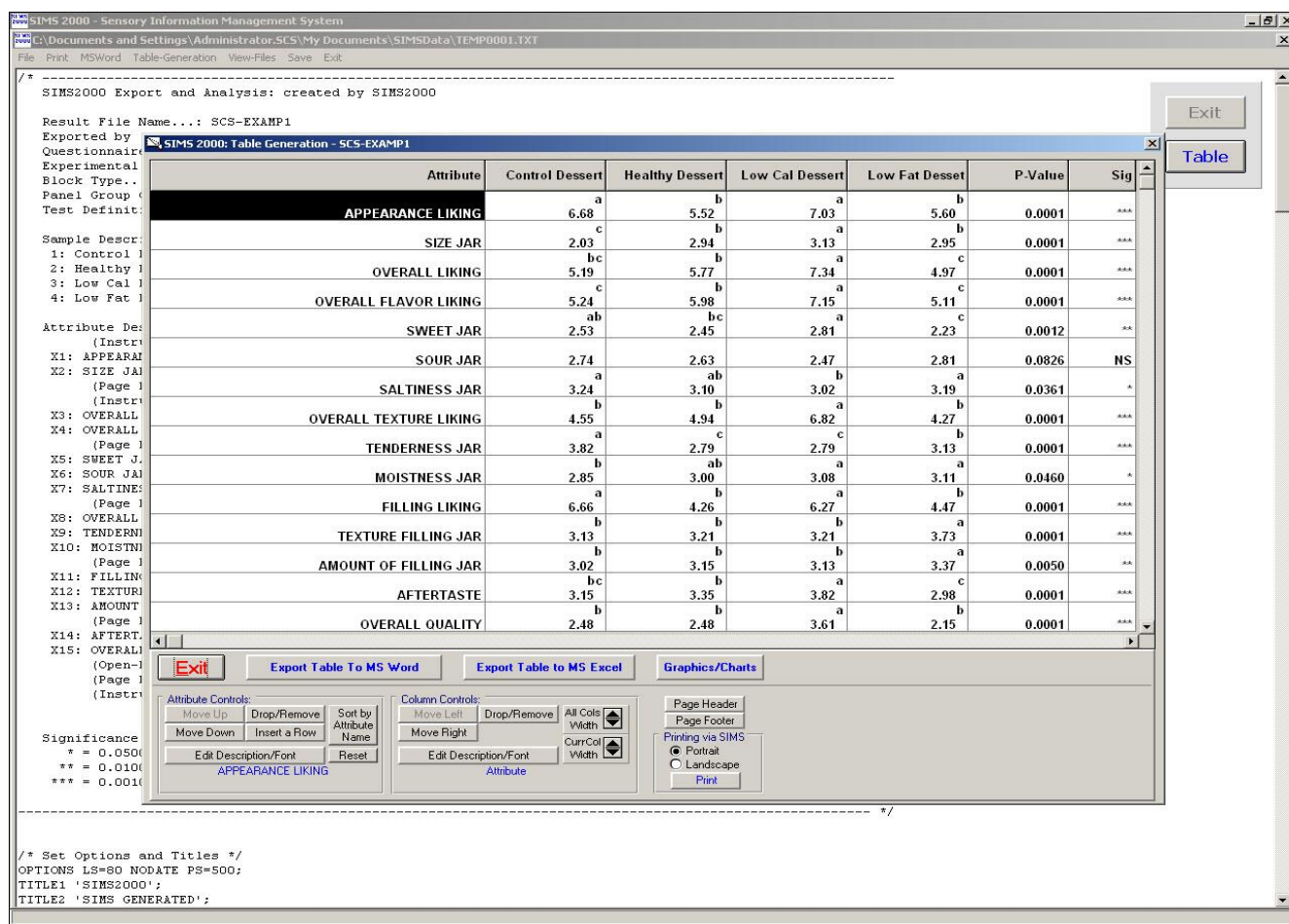
# SIMS Advanced Graphics

Many options for graphics. Graph entire studies, all attributes, or single attribute frequencies

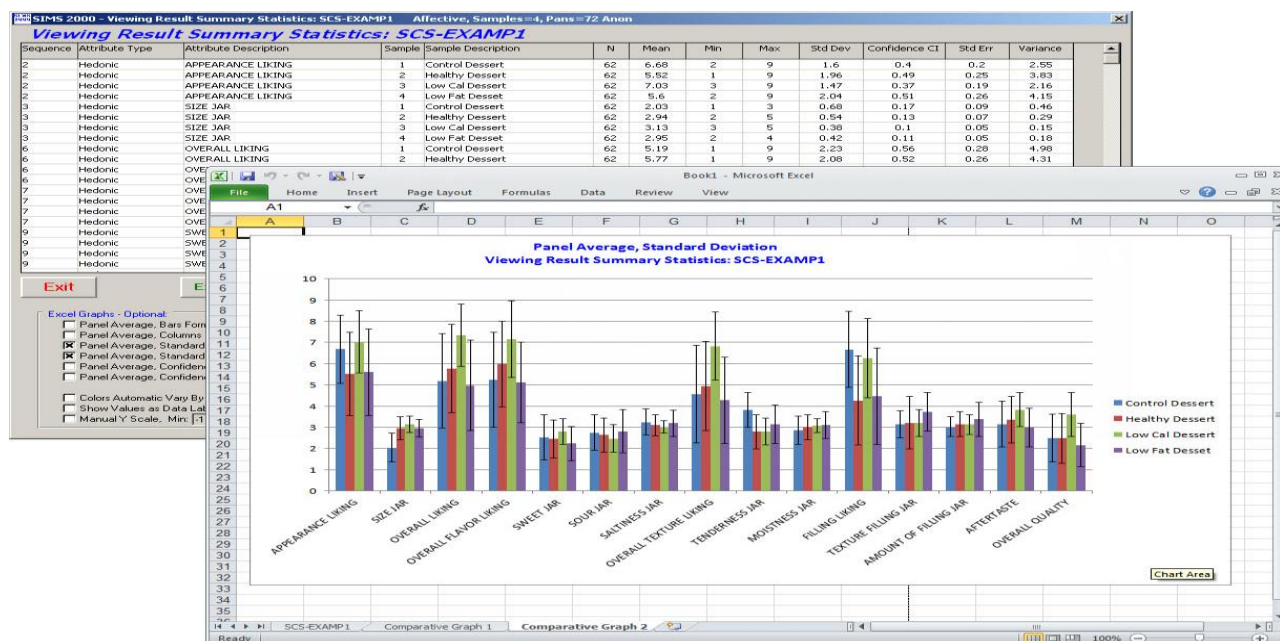




## SIMS Table Generation Report Examples – Statistics



## SIMS Result Summary Statistics, Standard Deviations, Confidence Interval, Graph Means/Averages



# SIMS PCA Principal Component Analysis

