The Business Policy Game:
An Internet Integrated International Strategy Simulation

Instructor's Manual - Web

Seventh Edition

Richard V. Cotter, David J. Fritzsche and Simon A. Rodan

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AN OVERVIEW OF *THE BUSINESS POLICY GAME*

Educational objective. The simulation provides an instructional supplement for courses dealing with strategic management and business policy, both domestically and internationally. Formulation of mission, objectives and strategy are emphasized, with opportunity to implement strategies and policies that will lead to the realization of objectives. A premium is placed on successful integration of functional area concepts. The model is challenging to upper-division undergraduate and graduate business students. Parameters may be easily set via menus to simplify the model for use in lower division courses.

The simulation. It is a computer-based model of a manufacturing firm with domestic and international subsidiaries. Student teams compete as members of management of simulated companies producing and selling a consumer durable good. Required decisions cover the areas of marketing, production and finance and human relations. The model is interactive so that marketing decisions, for example, may influence the sales of competitors as well as the sales of the firm making the decision.

Course use. Strategic management and business policy at the upper-level undergraduate or graduate level; suitable for use independently or as supplementary material. Seminars for management development. Lower level management courses when parameters are set to simplify the model. Variations of the model have been used successfully in the classroom and in intercollegiate competition for over five decades.

Number of participants. Twelve or more. A world may contain from three to eight firms (student teams), with each firm's management consisting of three to eight participants. For more than eight teams, separate worlds may be run concurrently.

Time required. Sixteen to twenty sessions of about fifty minutes each (later sessions typically may require less time). Many sessions may be held outside of classroom time. Outside preparation will reduce the time required in group sessions. Initial preparation by participants may require six to eight hours each.

Space required. Ideally, each company might have a separate "board room" for decision-making sessions. Grouping of teams in different parts of a large room works satisfactorily.

Materials and equipment needed. Copies of *The Business Policy Game: Player's Manual* and *The Business Policy Game: Instructor's Manual* are available under the Help menu in the Administrator's Program. The *Player's Manual* may be accessed prior to the start of a competition at https://bpgsim.biz/manual/pm.html. The Player's Program contains a non-printable copy of the *Player's Manual* under the Help menu. A printable copy is available from the Administrator's Area of the BPG Internet web site. A spreadsheet program is useful for student analysis and to use spreadsheet templates provided as part of a decision support system with the simulation.

Administrator's role. To provide an environment which maximizes the learning experience; and to arrange for materials, physical facilities and computer processing of student decisions. Instructions and suggestions for classroom use and for all phases of the simulation are provided in the instructor's manual.

PREFACE

A significant number of changes have been made over the past two editions. Most of these changes have been made with the student in mind. However, some have been made primarily to benefit the administrator. Many of the changes benefit both parties; thus, you might want to scan down both lists. And probably the biggest news is that the simulation is now available on the web as well as on PCs.

Changes to Enhance Education

1. Simulation reports for each quarter of play are available from both the Player's Program and the Administrator's Program. The reports for any completed quarter of play can be viewed in a browser by selecting the desired report and then selecting the desired quarter.

2. The Altman Z statistic has been added to the Quarterly and Annual Industry Reports.

3. Company output can be printed in English, Spanish or Portuguese

4. Added a morale factor that decreases production efficiency for several quarters when a company lays off or deactivates one or more lines.

5. Significantly enhanced the help module.

6. Added the Player's Manual and Quick Start Manual to the Help menu of the Administrator's Program. While the Player's Manual cannot be printed from the Player's Program, it can be printed from the Administrator's Program Help menu.

8. Added a glossary under the Help menu for all of the terms in the company reports.

9. Emergency loans after the first one result in customer and salespeople losses.

10. Made part of production costs and operating expenses as well as all taxes payable the following quarter.

11. Linked spreadsheet templates and the decision form to a Tool menu.

Changes to Enhance Administration

1. Moving the simulation to the web eliminated the need to set up the simulation on local PCs.

2. The home area for any company can be set to any Merica area.

3. A company can be shut down in any quarter.

4. Added several parameter changing options.

5. A new economic environment can be created for any World without creating it for World 1 first.

6. Licenses are installed immediately upon purchase. Thus no more emailing and installation required.

The Business Policy Game is a general management simulation that provides students with a challenging decision-making exercise. It has been used successfully with groups of upper-class undergraduates and graduate students in business administration and in executive development programs. The simulation also has been used successfully for many years in the International Collegiate Business Policy Competition.

Each participant should become familiar with the Quick Start Manual and *The Business Policy Game: Player's Manual*. Both are available under the Help menu of the Player's Program. The simulation administrator should become familiar with *The Business Policy Game: Instructor's Manual* and the Quick Start Manual which are available under the Help menu of the Administrator's Program. A copy of *The Business Policy Game: Player's Manual* is also located there. Each student team must purchase a software license which entitles it to use both the player's program and the Player's Manual for one competition.   The license is required beginning with Year 4 decisions for either individual or central decision entry competitions.

The Business Policy Game has been patterned, in part, after similar games which preceded it. Particular acknowledgment is given to Dr. John E. Van Tassel, author of the "Boston College Decision-Making Exercise" that inspired the senior author to become interested in business simulation and influenced the development of the model of this game and its player's manual. This revision is the result of experiences with the first six editions, as well as numerous other simulations and discussions with Association for Business Simulation and Experiential Learning (ABSEL) members and colleagues. We would like to thank all those authors and friends for their contributions. Steve Achtenhagen, San Jose State University, provided valuable input first as a team advisor and then as the administrative director of the International Collegiate Business Strategy Competition. Jack Green, Pepperdine University, and Steve Baumgartner, Pepperdine University/California State University Los Angeles, have both provided invaluable help. In addition, we would like to thank those of our users who responded to the survey we conducted prior to starting the fifth edition. They include:

Phillip Adelman, DeVry Institute of Technology
Prosper Bernard, University of Sarasota
Bill Biggs, Arcadia University
Harry L. Cather, University of Brighton, England
Chris Croft, The University of Western Australia
Mario Doria, ITESM in Toluca, Mexico
Mike Emerson, Harding University

1. INTRODUCTION

The Business Policy Game was designed as an instructional supplement for strategic management and international management courses. The simulation integrates the material covered in the students' functional area courses and provides them with an appreciation of how the concepts relate in the total enterprise. Student players are challenged to prepare and implement a strategic business plan, including a statement of mission, objectives, strategies and policies. The simulation is generally used as a supplement to cases and lectures in the strategy/international course. Prior to playing the game, the students should normally have completed all the courses in the business core and will thus have had exposure to each of the functional areas of business.

The simulation serves as the basis for the International Collegiate Business Strategy Competition which has been hosted annually since 1965 by the College of Business Administration, University of Nevada, Reno and more recently by the College of Business and Economics, University of Nevada, Las Vegas, the College of Business, San Jose State University, the College of Business, University of San Diego and the College of Business Administration, California State University, Long Beach. Student teams from Australia, Belarus, Canada, China, England, Finland, France, Mexico, the United Arab Emirates and U.S. universities have participated in the competition during the spring semester of the academic year. The intercollegiate competition has served as a testing ground for modifications which have been integrated into each new edition of *The Business Policy Game*. These continuing modifications provide a unique competitive situation for the competition each year.

The simulation can be used appropriately as the major content of a course in which the students spend most of the semester or term in competition. It also is suitable for advanced management seminars providing continuing education for management personnel.

The complexity of the simulation can be varied to create a more challenging or less challenging business environment. It is suggested that the use of the full, international configuration be limited to groups of students or executives who already have a broad background in each of the functional areas of business--finance, marketing, operations and human relations. It provides a real challenge to upper-class undergraduates or graduate students pursuing a degree in business administration.   For lower division students the domestic configuration possibly limited to one market segment per area is recommended. Details on setting up the various configurations are found in Chapter 3 and Chapter 9.

For the instructor, the mechanics of administering *The Business Policy Game* are easily mastered.   A computer browser is used to connect to the Administrator's Program. Currently supported browsers include Chrome, Firefox and Safari. The simulation may be tailored to fit the needs of the game administrator via a series of easily modified parameters.

Chapter 2 contains suggestions for using *The Business Policy Game* in the classroom setting. The chapter includes suggestions for organizing competing teams, developing preliminary assignments including the preparation of strategic business plans, suggested class schedules and alternative schedules for decision-making sessions. Suggestions for written and oral reports that may be used profitably with the simulation are also included. Finally, suggestions for evaluation and judging of performance are included.

The simulation might be considered as an extended case problem where the results of one case solution provide input into the next case scenario. The simulation is dynamic in that future opportunities are influenced by past actions. There is ample opportunity to correct past mistakes and to capitalize on the favorable outcomes of successful strategies and policies.

Chapters 3 and 4 deal with getting started--installing and initializing the programs and data files. Chapters 5 and 6 describe the details of decision entry and of running the simulation. Chapter 7 provides help on keeping track of the competition. It includes comments on the reports included in the game output and instructions for using the two scoring programs and the graphing program.

Player's Manual

The Business Policy Game: Player's Manual is available under the help menu of the Player's Program. The security level has been set to prevent printing of the manual. This was done at the request of several professors whose computer facilities were being swamped when all their students decided to print the manual on school printers. A printable copy of the manual is available under the help menu of the Administrator's Program. If you want to make a printable copy available to your students, you may download the printable copy and make it available locally.

A Quick Start Manual is also available under the help menu of the Player's Program and the Administrator's Program. It provides a condensed description of the simulation. We suggest that all players read the Quick Start Manual and the sections of *The Business Policy Game: Player's Manual* for which they are responsible in preparation to undertake simulated business operations. After that, they should become familiar with the remaining sections of the *Player's Manual*. It outlines in detail the business situation that the simulated firm faces. The business environment is quite realistic and complex. Emphasis throughout the manual is on the development of successful policies and strategies for effective decision making.

If desired, the *Player's Manual* may be printed and distributed at cost to students. However, the manuals must not be sold for a profit. And students must have the option of reading the manuals via computer.

The specifics of the simulation model are not explained in the manual. Experience has shown that maximum integration of business concepts takes place when students are thoroughly involved in the business environment rather than in the mathematical model. Analysis of business data and the development of effective business policies, strategies and tactics are more beneficial than dissecting the simulation program. The tendency for students to try to "beat the computer" has been discouraged throughout, and it is suggested that students learn the intricacies of computer programming in other classes. However, we strongly encourage students to use computerized spreadsheets, graphics programs, and other models as decision aids in their decision-making activities.

The Business Policy Game: Player's Manual should be helpful both to the player and the instructor. It includes historical data and information about the operation of the simulated firms in the world for the two years preceding the time that participants assume management of the competing firms. In addition to providing information about the business environment and the rules of the simulation, suggestions are made to participants regarding the organization of the personnel who make up their management team and the analysis and planning that should be completed before undertaking the decision-making process. A copy of the decision form is provided in the Player's Program under the tools menu.

If you run into problems, please check Appendix B first. If that does not solve your problem, please contact us by phone or E-mail. Contact numbers and addresses are in Appendix B. We are eager to serve you. We want your simulation experience to be successful. Your students are depending upon it. They will learn things playing the simulation that are not possible to learn by any other means short of real job experience.

Licensing Agreement

The 7th edition of *The Business Policy Game* software is licensed on a team basis. Use of the manuals is included in the license fee. Each team of players will need to purchase a player's license in order to play the simulation. Licenses are ordinarily purchased by using a credit card and clicking on the "Home/Buy team license" menu of the Player's Program. Alternatively, the administrator may pay the fee for all teams in a World using a credit card by clicking on Manage worlds/Manage licenses menu in the Administrator's Program. Payment for a World may also be made by check or wire transfer by contacting the author(s). A team license is good for one competition.

In order to facilitate starting the simulation, a license is not required until the first quarter of Year 4 is played. This eliminates the problem of not being able to begin the competition due to teams being tardy in obtaining their license, and it also allows for a trial run through Year 3 prior to obtaining a license. However, decisions may not be

entered for Year 4, Quarter 1 without a license. When a license is purchased, it is stored on the Internet server which allows decisions to be entered for Year 4 and beyond to the end of the competition. No license is required to use the Administrator's Program or manual.

2. USING THE BUSINESS POLICY GAME IN CLASSES AND SEMINARS

This chapter provides suggestions for using *The Business Policy Game* in a classroom or seminar setting. Detailed instructions for installing and processing the simulation are found in Chapters 3 to 6. Keeping up with participants' performance is discussed in Chapter 7.

General Objectives

The Business Policy Game was designed with specific educational objectives in mind. We believe that students learn and retain more information when placed in an active role in the learning process. Learning can take place at many levels in the simulation. The casual participant will absorb a moderate amount of knowledge from the exercise. As a student becomes more and more involved in the simulation, the learning experience will continue to deepen. Experience has shown that the simulation is a powerful motivator with many students becoming highly involved in the course. The serious student will put a great deal of effort into the analysis of past decision results as well as projected future decisions. The competition and challenge generated by the simulated business operation creates a high level of excitement.

Given the motivational force generated by the simulation, the principal role of the simulation administrator is to provide an environment in which students can participate actively in the learning process. To participate successfully in the simulation, each team of students must give careful attention to the formulation of successful strategies and policies for their simulated business firm.   The simulated environment requires the student-managers to take an upper-level management perspective of the operations of their firm. They must keep the objectives of their firm clearly in sight. They need to analyze the available data concerning the situation that is faced, to separate the policy decisions from the strategic and tactical decisions and to implement the policies through specific decisions involving the marketing, production, investment and financial activities of their firm.

There is a dynamic interaction of ideas and activities among the competing teams as well as among the members of the management team of each competing firm. Unlike the typical case problem, the simulation provides a vibrant situation in which the participants become aware of the interaction of their activities with those of their competition. The passage of simulated time permits them to receive feedback on the outcome of the operations set in motion by their past decisions. It requires them to evaluate their own decisions and those of their competitors and to institute corrective action when the outcome is not what they would like it to be.

At the end of the term, we often have several students express their feelings that participating in the simulation was one of the most meaningful educational experiences they have encountered during their time in college. We attribute this, at least in part, to the intense degree of involvement that is generated and to the sense of reality that can be experienced while participating in the simulation.

Getting Started

Varying the Level of Complexity

The addition of the international market, Sereno, to the fourth edition of *The Business Policy Game* increased the complexity of the game. Keeping track of two economies and dealing with exchange rates presented a challenge to most students. In the fifth edition, the simulation administrator was given the option of decreasing that complexity by running a domestic simulation or of substituting Nystok, an Eastern European country, or Pandau, an Asian country, for Sereno. The addition of a second product attribute, features, in addition to quality, created a unique, nine segment market in each market area. Simulated firms can offer a product tailored to the desires of each market area. Market research can be purchased to ascertain the desires of the population of each market area. We believe these changes made for a significantly improved simulation experience from which senior level and graduate students can profit. However, the experience is likely to overwhelm lower level students or students who do not have a strong background in the business disciplines. Thus, we have provided an easy way to reduce the complexity of the simulated experience.

When you initialize the starting conditions for the competition, the default position is that each firm has a sales office in and is selling goods in all four market areas: normally three Merica areas and Sereno. You may decide to reduce the complexity by substituting a fourth Merica area for Sereno making the competition all domestic. You may also decide to eliminate the fourth market area by closing the sales office in the fourth Merica area. Finally, you may eliminate the market segmentation effect by requiring all teams to keep the same quality and features levels for all market areas. These changes are easily made using menus discussed later.

Organization of Company Teams

You need to divide the participants into management teams, one team for each simulated firm in a world. The teams may be assigned or they may be self-selected. We recommend a minimum of three and a maximum of six students per team. A team of four to six students appears to be about optimal. A smaller number places too great a burden on each team member, and a larger number usually results in some "free riders." The simulation model represents an oligopolistic industry in which a few firms are in direct competition with each other. A minimum of three teams (firms) and a maximum of eight teams can be accommodated in one world. We do know of a situation where a two team competition was run, but we have had no experience with that configuration. If more than

eight teams are required, the class should be divided into two or more separate worlds. Each world runs independently of all other worlds, and thus the performance of a team in one world is not directly comparable with the performance of a team in any other world.

Assigned Teams. You may wish to assign members of the class to teams in order to provide a balance of students on each team. For the best learning experience, the balance criteria should include both the students' aptitudes and the major disciplines in which the students are studying. A team composed entirely of "D" students is no match for one composed of "A" students. The "D" team will tend to cease serious effort rather early in the simulation. We recommend that a balance be provided across disciplines by including, where possible, at least one student on each team from each of the following fields: accounting, economics, finance, marketing, and operations.

To facilitate team assignments, we suggest that during the first week of class you require each student to fill out an information card containing their name, major, and approximate grade point average. The cards then can be sorted and individuals assigned to teams on the basis of grade point average and major. A quick check after the above sorting will reveal any imbalance among teams.

Self-selected Teams. There are some advantages in letting students choose their own teams. If you expect students to accomplish a substantial portion of the group work outside of the regular class period, the work and study schedules of students you arbitrarily assign to each team may not be compatible. This incompatibility may be avoided if students are told during the first class period that part of the outside assignments will require group effort, that they are to choose their own management teams which will be able to meet together outside of class, and that their teams probably will be more effective if the members include one or more students from each of the functional areas of business. Self-selection can be made contingent on approval by the simulation administrator, and diversity of background can be a condition of approval. One of the authors regularly extends the concept of diversity to include at least one male and at least one female student on each team. With a significant number of international students, at least one international student is required on each team also.

Team Organization. After team assignments have been made, you may wish to specify the internal organization of the teams. Alternatively, you may encourage each team to organize itself in the manner the team believes to be most effective for successful business operations. It is interesting to note that the organizational process and the interaction among team members that must take place during the decision-making process creates some of the same interpersonal interactions and personnel relations problems found in the "business world." These problems are nearly impossible to quantify in a computer model. A group of self-organized teams provides a ready-made laboratory for experiments in inter-personal relations.

The Business Policy Game: Player's Manual reviews some of the differences between centralized and decentralized organizations and distinguishes between autocratic and democratic decision making. You might suggest that the members of each team choose their own officers and decide in what manner the lines of authority and responsibility should flow for their organization. Suggested officers for each team are: a president; vice-presidents in charge of finance, marketing, and operations; and an economist to be in charge of economic forecasting. A secretary may be assigned to record the minutes of board meetings and to complete and submit the quarterly decisions. Larger teams may wish to elect or appoint assistant vice-presidents in some of the functional areas. Alternatively, with the addition of sales offices requiring inventory and sales force management by area, teams might be organized by geographical area with the marketing vice-president being replaced by vice-presidents for each market area.

Corporate Charter

The Corporate Charter form is available under the Tools menu of the Player's Program. It is suggested that you ask each team to print and complete this form for submission prior to the beginning of play. Spaces are provided for entry of a company name and the names and titles of each team member. This form will give you a written record of information on each team. If you request that two copies of the form be submitted, one can be returned to the participants for their corporate records.

Preliminary Assignments

Prior to submitting the first set of decisions for *The Business Policy Game*, we suggest that each team invest several hours in learning the rules of the simulation. Team members should study the constraints that are imposed upon their operations by the computer program and undertake a thorough analysis of the business environment presented in the simulation. They also should make preliminary forecasts and projections, formulate and clarify the objectives of the firm and formulate initial strategies and policies to assist in working toward their stated objectives. Students are also encouraged to view the Getting Started in Eight Steps tutorial located under the help menu of the Player's Program to become familiar with the web interface.

Each team member should study the Quick Start Manual to obtain an initial overview of the simulation and its rules. More in depth knowledge can be gained from the *Player's Manual* (Both manuals are found under the help menu of the Player's Program). Individual team members heading up the functional areas of marketing, operations, and finance should concentrate during the initial assignment on gaining an in-depth knowledge of the chapters relating to their specialties. Team members in charge of a market area should become very familiar with the marketing chapters. The team members should become familiar with all of the chapters as the simulation progresses. Before completing the initial decision set, team members should pay special attention to

the historical data for Years 1 and 2. Samples are found in Appendix C of the Player's Manual, but the actual data for their competition is found in ReportJ included with the simulation output for Year 2, Quarter 4.

After the participants have had an opportunity to study the Quick Start Manual and the *Player's Manual* and have organized their teams, we suggest that you make the following assignment to encourage the teams to develop the necessary information upon which to base intelligent decisions. This assignment follows the more general outline of the suggestions for preliminary activities in the *Player's Manual*, pages 17 to 19.

1. Organize your management team. This already has been discussed in the previous section.

2. Prepare an economic forecast, by quarter, for Year 3. Then estimate levels of economic activity, by year, for Years 4 through 7.

3. Prepare a sales forecast for each quarter of Year 3 using the Sales Forecast template. Then project sales levels on an annual basis through Year 7.

4. Prepare a production plan for Year 3 to meet the sales forecast using the Production Plan template. Project required production levels through Year 7.

5. Prepare a capital investment plan based upon the five-year sales and production projection.

6. Prepare a capital budget to meet the funds requirements of the five-year investment plan using the Capital Budget template.

7. Prepare *pro forma* financial statements for each quarter of Year 3 using the Pro Forma Income Statement, Pro Forma Cash Flow and Pro Forma Balance Sheet template.

Spreadsheet templates for each of the work sheets are available under the Tools menu of the Player's Program.

In addition, each team should develop a set of operational objectives (unless you decide to assign the same objectives to each team in order to facilitate evaluation--see the "Evaluation and Judging" section, page 16). Following development of their set of objectives, each team should formulate initial operating policies. You may want to spend some time discussing the value of explicit policies for the various decision areas and the operational difficulty that may be incurred in implementing (and judging success with) such generalizations as "charge a fair price for our product."

When the above assignments have been completed, the team should be in a position to make decisions regarding business operations for the first quarter of Year 3. It might be helpful for the team to prepare "budgeted" decisions for the entire year to be revised as more up-to-date information becomes available.

Operations and Suggested Class Schedules

<u>First Decision</u>

The initial assignments described in the last section will require a rather heavy investment in time on the part of the students. We recommend that a week's worth of class time and assignments be allowed for this purpose. In a class with three fifty-minute class periods per week, the first meeting would typically be spent in organizing the teams and outlining the rules of the simulation. The second and third class meetings could be spent as laboratory sessions with the individual teams meeting as groups to work on the preliminary assignments. During the class period, the instructor should visit each team to answer questions about the simulation and to ask searching questions designed to make the students think about what they are doing and why.

The first four or five decisions will require more time on the part of students than those that follow. During the first several decision periods, the students still will be learning and familiarizing themselves with the rules of the simulation. It will take some time for the majority of students to gain skill in seeking pertinent data when analyzing the computer output. Policy formulation will be in its initial stages, and many policies from the initial set may have to be revised as the team learns more about the business environment and gains skill in "second guessing" its competitors. As the competition proceeds, the required amount of analysis for each decision session will decline, and the students will be able to make their decisions more quickly.

Figure 2-1
Semester Course Outline

Day	Standard Assignment	Compressed Assignment
1	Orientation	Orientation
2	*The Business Policy Game* intro.	
3	*The Business Policy Game* lab	
4	*The Business Policy Game* lab	
5		
6		
7	BPG 3-1, preliminary assignment due	
8		
9		
10	BPG Decision 3-2	
11		
12		
13	BPG Decision 3-3	
14		
15		
16	BPG Decision 3-4	
17	Annual report	
18		
19	BPG Decision 4-1	*The Business Policy Game* intro.
20		*The Business Policy Game* lab
21	BPG Decision 4-2	*The Business Policy Game* lab
22		
23	BPG Decision 4-3	BPG 3-1, preliminary assignment due
24		
25	BPG Decision 4-4	BPG Decision 3-2
26	Annual report & board meeting	BPG Decision 3-3
27	BPG Decision 5-1	BPG Decision 3-4
28	BPG Decision 5-2	BPG Decision 4-1, Annual report
29	BPG Decision 5-3	BPG Decision 4-2, 4-3
30	BPG Decision 5-4	BPG Decision 4-4
31	BPG Decision 6-1, Annual report	BPG 5-1, Annual report & board meeting
32	BPG Decision 6-2	BPG Decision 5-2, 5-3
33	BPG Decision 6-3	BPG Decision 5-4
34	BPG Decision 6-4	BPG Decision 6-1, Annual report
35	Annual report & board meeting	BPG Decision 6-2, 6-3
36	BPG Decision 7-1	BPG Decision 6-4
37	BPG Decision 7-2	BPG 7-1, Annual report & board meeting
38	BPG Decision 7-3	BPG Decision 7-2, 7-3
39	BPG Decision 7-4	BPG Decision 7-4
40		
41		
42		
43		
44	BPG Critique	BPG Critique
45	BPG Critique	BPG Critique

Figure 2-2
Course Outline for Quarter Classes

Day	Standard Assignment	Compressed Assignment
1	Orientation	Orientation
2	*The Business Policy Game* intro.	
3	*The Business Policy Game* lab	
4	*The Business Policy Game* lab	
5		
6	BPG 3-1, preliminary assignment due	
7		
8	BPG Decision 3-2	
9		
10	BPG Decision 3-3	*The Business Policy Game* intro.
11		*The Business Policy Game* lab
12	BPG Decision 3-4	*The Business Policy Game* lab
13	BPG Decision 4-1, Annual report	BPG Decision 3-1, preliminary report
14	BPG Decision 4-2	BPG Decision 3-2
15	BPG Decision 4-3	BPG Decision 3-3
16	BPG Decision 4-4	BPG Decision 3-4
17	Annual report & board meeting	BPG Decision 4-1, Annual report
18	BPG Decision 5-1	BPG Decision 4-2, 4-3
19	BPG Decision 5-2	BPG Decision 4-4
20	BPG Decision 5-3	BPG 5-1, Annual report & board meeting
21	BPG Decision 5-4	BPG Decision 5-2, 5-3
22	BPG Decision 6-1, Annual report	BPG Decision 5-4
23	BPG Decision 6-2	BPG Decision 6-1, Annual report
24	BPG Decision 6-3	BPG Decision 6-2,6-3
25	BPG Decision 6-4	BPG Decision 6-4
26		
27		
28		
29	BPG Critique	BPG Critique
30	BPG Critique	BPG Critique

When we use the standard format, we like to begin rather slowly with one decision per week or at least every other class session for the first four decisions. During these weeks, the instructor may allow one fifty-minute class session each week for a laboratory decision session and expect that each student would spend from two to three hours outside of class in analysis and preparation for the sessions. Other class periods would be devoted to lectures, discussion, and/or case analysis.

We begin to speed things up with the start of Year 4 and speed up even more beginning with Year 5. Class time for decisions is curtailed to about one-half of the period (twenty-five to thirty minutes). By this time, the students will have gained enough experience with the simulation to reduce their out-of-class preparation to about one-half of

that formerly required for each decision period. Following the decision for Year 4, Quarter 4, we like to schedule an annual meeting to evaluate the simulation experience to date. This may be a "public" class meeting or a private team meeting (substituting for one class meeting). This permits a discussion and evaluation of operations over the first two years of simulated operation.

A compressed schedule separates the course into two parts. The first part of the course covers the conceptual strategic management and business policy material. The second part of the course is devoted entirely to *The Business Policy Game*. It provides an intense experience with four or five decisions being made per week after the first several decisions have been completed. Classroom time is devoted to integrating conceptual material into the simulation experience, discussing the role played by decision support software and filling holes in the students' knowledge base which surface in the simulation experience and decision making.

Another type of schedule that has been used successfully requires one decision per week until ten or twelve decisions have been completed. Then a couple of afternoons (or an all-day session on Saturday) of intensive decision making would end the simulation. In such an intensive session, forty-five-minute decision periods starting with the return of the previous period's computer output, will provide adequate time pressure to simulate the limited time that often is available for analysis and decision making in the "business world."

The computer program and history files are designed to permit a maximum of thirty-six quarters, or nine years, of simulated business operations. (Operations begin with the first quarter of Year 3 and end with the fourth quarter of Year 9.) However, twenty decision periods appear to be just about right to create the maximum learning experience for the student. However, some instructors prefer to stop operations at the end of four years (Year 6, Quarter 4) in order to use additional class time for other purposes. It also is difficult to go beyond Year 6, Quarter 4 if you are teaching on the quarter system because of fewer weeks in the term.

Because of the lead times required in the simulation for certain types of decisions (construction of new plants, for example), operation of less than four years does not permit the participants to feel that they are able to see the full results of their long-range planning and decision making. The existence of lead times, however, is a decided advantage in providing the feeling of a realistic situation and in forcing students to engage in long-range planning activities that are difficult to simulate in a simpler simulation. We shortened the lead times in the fourth edition to accommodate schools operating under the quarter system. It may be possible to run the game successfully for three years when pressed for time. We do not have any experience with three-year competitions and thus invite your feedback if you try a three-year time frame.

Written and Oral Reports

A number of written and oral reports have been used with students playing *The Business Policy Game*. We have included several here as suggestions for course assignments. We encourage you to modify these assignments and/or develop others to meet your needs. If you develop an assignment which works particularly well that you would be willing to share, please send us a copy. We may include it in the next edition.

1. Strategic Plan. Student teams typically are assigned the project of compiling and submitting a written business plan describing the strategies and policies that have been developed by their simulated firm's management. The strategic plan should include a clear statement of the company's mission and objectives along with written strategies and policies to achieve these objectives. Students are expected to include strategies for each of the functional areas and specific policies for each of the decision variables. They should be cautioned to be as explicit as possible in their policy statements and to avoid generalizations such as "serving our customers well." Policies that are not relevant to or are outside the scope of the organization and operation of the simulated firm are discouraged. Such policies are not meaningful in the context of the simulation.

2. Forecasts and Plans. Prior to submitting their first decision, students usually are asked to submit the set of "preliminary assignments" described above. It is also worthwhile to ask the teams to submit revisions of these forecasts and plans when made during the course of the simulation. Such revisions typically are required at the end of each simulated year of operation, or possibly every other year as the teams gain experience.

3. Annual Reports. At the end of each year of simulated operations, our students are asked to submit a written annual report to the board of directors, and for some of the years, an oral report. These reports should include a quantitative assessment by each company's management, showing their status with respect to the objectives and goals previously defined. For the board meeting, the oral reports are given. The simulation administrator is present, and he may invite other faculty members or businessmen to hear the reports.

4. Critique. The schedule of decisions provided above suggests a critique session at the end of Year 4 and again at the end of the simulation. Some instructors may wish to schedule critique sessions more often. An effective way to implement a very useful class discussion for the critique is to assign each team the project of preparing a summary of the favorable and unfavorable aspects of the operations of one of its competitors for presentation to the class. Such presentations in the past have stimulated interesting and valuable discussions concerning what the company teams should or should not have done during their simulated operations. For the critique at the completion of the simulation, students may be provided with copies of the strategic plan of the company being evaluated

and, if possible, detailed information concerning the firm's operations that only would be available to the company itself during the course of operations (i.e., copies of the firm's financial statements). The authors routinely print an extra copy of company reports each quarter for this purpose. Beginning with the fifth edition, all company reports for a firm may be provided in the form of report files on disk rather than printed reports.

Lowering the Boom

Just when the teams think they are doing so well, it may be desirable to lower the boom (introduce an external shock to the simulation). Shocks, such as labor stoppages, occur in real life and test the ability of a company's management to deal with unexpected problems. The authors have used successfully such shocks as strikes (sometimes following simulated labor negotiations), fires in the home-area plant, earthquake damage, and even a volcanic eruption. The eruption left volcanic ash and grit in the machinery and forced a plant closure for one quarter! The enterprising simulation administrator may find other kinds of shocks to be suitable also such as those that have recently occurred in the business world.

It is relatively easy to enforce reduced output or a shutdown of a plant, for example. Parameters are provided which may alter the production output for any company in any area from 0 to 150 percent of normal output. There even is a field for the administrator to impose "other expenses" for a penalty or other cost (i. e. consulting expense) not covered elsewhere in the simulation (see Chapter 6).

If labor negotiations are used as an exercise, it is recommended that they be done on an industry-wide basis, for a full world. Then, labor costs may easily be adjusted to reflect a settlement (see Chapter 9). If there is no settlement, then a strike may be called, and all production facilities shut down for a quarter. With the present edition, it is possible to adjust labor costs on a company-by-company basis and on an area-by-area basis for each company if you prefer to conduct more fragmented negotiations.

Evaluation and Judging

There is a two-dimensional evaluation problem when using a computer simulation such as *The Business Policy Game* in the classroom. Both the relative positions of each team and an individual evaluation of each team member must be made. If more than one world is utilized (i.e., to accommodate more than eight teams in the competition) a third dimension is added to the evaluation process. One member of the panel of judges for the International Collegiate Business Strategy Competition has remarked that comparing teams across worlds is like trying to judge the success of an automobile manufacturer compared to a chemical manufacturer. Each industry possesses unique characteristics. There is, however, a basic similarity among the student teams in actual operation, and while this adds another dimension to the evaluation process, it is not as difficult as it might appear.

Students usually want to know how their semester grade will be determined before committing to a class. We suggest that you make a portion of the grade dependent upon the student team's performance and a portion dependent upon the individual's quizzes, examinations and contribution to the team's effort. This will provide a means of recognizing an outstanding student even though the group's performance may be less than excellent due to the marginal quality of the input by fellow team members. On the other hand, it makes it possible to identify the "free riders" who may contribute little or nothing to the performance of the management team.

Quantitative Standards

Group performance may be evaluated with reference to a single objective, or may be judged on overall performance relative to a number of factors that are important to the success of a business firm.   If a single objective is to be used, we suggest that the time-adjusted rate of return on stockholders' initial investment might be an appropriate one. This value is reported on the industry reports (as Investors' ROI) and is rather straightforward and easy to determine. It is computed as a percentage return on the market value of a share of common stock purchased at the end of Year 2, accounting for dividend payments and the increase (or decrease) in the price of the company's stock (see the Player's Manual, page 55).

If this rate of return is used as a single criterion for judgment regarding the success of each management team, the instructor is cautioned that the value is heavily dependent upon the stock price, which is an artificial value in the simulation. Lacking a market, the price is determined by an arbitrary function (which never should be divulged to participants) that is dependent upon the rate of growth in earnings and the value of dividends and earnings. A high rate of growth for an individual company's earnings will result in the stock price being a higher multiple of dividends and earnings. The lower limit

of the stock price is one-half of book value, but this is likely to occur only when the company's earnings performance is extremely poor.

On the other hand, this is probably as good an overall single measure as any that could be used in the simulation. Earnings and dividend performance over the course of the simulation are closely correlated with other measures of profitability and efficiency and contribute to maintenance of a high credit rating. If the instructor wishes to judge performance on a number of factors, several ratios of profitability, efficiency and financial ability are computed each quarter and reported in the computer output. Such ratios appear both on the quarterly and annual industry reports.

We have provided two scoring programs that you may use to do a more comprehensive quantitative evaluation of team performance. Both are described in detail in Chapter 7. The first program provides a z-score report using a series of relevant variables from the history file. Z-scores are calculated for each of the companies on each of the variables. Z-scores then are weighted and added together to provide an excellent ranking scheme for competing companies. The weights are easily changed to provide more or less emphasis upon the different variables. Surprising as it may seem, this program has consistently (almost always) matched the judgment rankings of teams by the businessmen-judges in intercollegiate competition.

The second program providing a pro-score report (proportional score), also obtains its data from the history file. The program calculates the relative performance of each team on a series of ten variables. The team that scores highest on a variable earns a 1 (representing 100%) with the other teams earning a decimal percentage of the top team's score. Of course, more than one team may earn a 1 if they tie on a variable. You assign weights to the number of variables you want to use to evaluate the teams and the weights are multiplied by the respective scores to earn a total team score between 0 and 1 for each team.

We suggest with either of these programs that you cast a rather wide net as you assign grades. We tend to group together teams with closely related scores and assign the same team performance grade to each team in the group. We do not believe the numbers reported by the scoring reports are accurate enough to allow more precise grading of one team over another.

Qualitative Standards

In addition to strictly quantitative standards of evaluation, we encourage you to evaluate participating teams on the basis of their organizational effectiveness, their planning process (organization, completeness, etc.), the analytical methods used (statistical analysis, methodology, etc.) and the justification for their decisions (reasoned policy or intuitive judgment). A list of qualitative criteria that have been used successfully includes:

1. Realistic written objectives emphasizing earnings and growth and the degree of realization of those objectives.

2. Effective organization and teamwork in the management group.

3. Effective system of data analysis and control of operations. Industry tracking and forecasting method established.

4. Effective production planning and management.

5. Effective market strategy and implementation.

6. Effective equity management policies.

7. Style and professionalism of reports; poise and professionalism during presentations.

This type of evaluation can only be made after observing and questioning the management teams in action throughout the time period when they are playing the simulation.

Evaluation of Individual Performance

In contrast to evaluation of the management teams as a unit, we recommend that you consider the contribution of the individual team member to the unit's performance. Some idea regarding an individual's performance may be gained through ratings by peers. One way that has proven effective is to circulate a confidential questionnaire asking each team member to rate each immediate colleague in regard to several factors relating to performance within the management team. The number of factors to be rated should be few in number and probably should include reference to understanding the rules of the simulation, the simulated business environment, the ability to perform assigned duties, contribution to the policy formulation process and overall contribution to the success of the team. A suggested peer evaluation form is included in this manual for the individual team members to use at the end of the course.

Another way to evaluate individual performance, of course, is through examination questions. Examinations for *The Business Policy Game* may include two types of questions--questions of fact or procedure and questions requiring analysis and justification for decisions. The former type of question may concern rules of the simulation taken from the *Player's Manual* or facts regarding the performance of the management team during the simulated competition. Such questions can be formulated easily with reference to the manual and the computer output. This type of evaluation may not be too appropriate for

evaluating performance, however, because such knowledge **must** be known for the participant to be an effective participant in the simulation.

The second type of question has been used on examinations with great success. The actual questions that are used will be somewhat dependent upon the development of the competitive situation while the simulation is in operation. Samples of this type of question follow:

1. What do you see as the two most important problems facing your company in *The Business Policy Game* competition? With regard to the one that you rank as most important, describe how this problem arose, the principal factors that contributed to its existence, your recommendations for a policy with regard to it and the justification for your recommendation.

2. Describe your company's policy with regard to product pricing. How does it differ from that of your competitors? Do you agree that this is the policy that your firm should follow? If so, why? If not, recommend a different policy and justify it.

3. With reference to the most recent set of decisions that your team submitted, justify each of the decisions that was made. Do not omit those areas where it was decided to take no action.

4. Describe and justify the policy that your team has developed with reference to accumulation of inventory and maintenance of minimum and maximum stocks, if any.

5. With reference to the most recent sets of computer output that you have in your possession, which team would you judge as being the most successful in the competition to date? Justify your answer with specific references. If the team is not your own, what should your management do? If the team is yours, what should your competitors do to overcome your superior position?

Similar questions may be formulated regarding other decision areas and similar situations that may arise in the operation of the simulation.

Checklist

Figure 2-3a and 2-3b provide checklists of activities that must take place prior to the start and during the simulation. Some of these activities are described in other chapters.

Figure 2-3a
PRE-SIMULATION ACTIVITY CHECKLIST FOR BPG Web

1. Integrate the simulation into the course schedule and plan assignments and reports.

2. Initialize the simulation using the Administrator's Program (see Chapter 4).

3. Introduce the simulation to the class.

4. Assign students to management teams.

5. Distribute team user IDs and passwords obtained from the Administrator's Program under the Manage worlds/Manage passwords menu.

6. Inform the class that the Player's Program is at URL bpgsim.net. Historical data is available under the Reports menu.

7. Assign the Quick Start Manual and the Player's Manual as required reading. They are both under the Player's Program Help menu.

8. Inform the class of the dates and times when the simulation will be run.

Figure 2-3b
SIMULATION ACTIVITY CHECK LIST FOR BPG Web

1. Student teams use a web browser to view simulation output.

2. Students use simulation output to formulate next quarter's decisions.

3. Student teams enter decisions using a web browser. Decisions must be saved after entry.

4. When it is time to run the simulation, run the simulation using the Administrator's Program.

5. Use the Reports menu to view the simulation output.

6. Go to 1 above.

3. Establishing a Personal Simulation Account
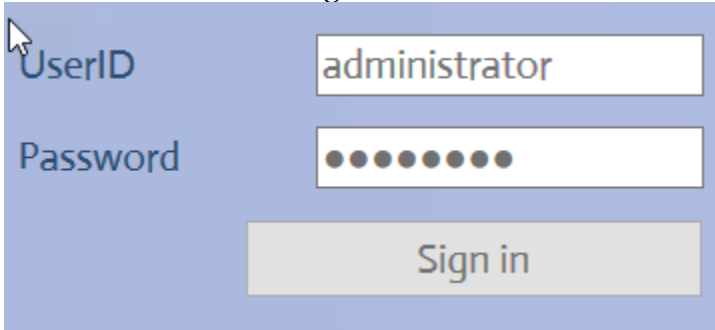
To use BPG Internet, you must create a BPG Internet account. **There is no need to create another account if you use it at least once a year.** The User ID and password will not change. The account keeps all your competitions in one place and isolated from all other administrators' competitions. Launch your favorite web browser and enter the URL bpgsim.net. The screen shown in Figure 3-1 will appear. We encourage you to click on the quick start button at the bottom for a short tutorial.

Figure 3-1

Then click on Administrator and enter administrator in the UserID field and lwb60uss in the Password field.

Figure 3-2

Click the Sign in button and the registration form will appear.

Figure 3-3
Registration Form

You choose the UserID and password that you want to use. After you have completed the form, click the Create your account button. The simulation Home screen appears.

Figure 3-4
Home Screen

You may proceed to initialize a World or click on Sign Out which is located in the upper right-hand corner (not visible in this screen shot). The next time you launch the program using bpgsim.net, enter the UserID and password you established, and you will be taken to the home screen.

4. INITIALIZING THE BUSINESS POLICY GAME

Note: Each world must be initialized prior to **every** competition!

After you have established a BPG Internet simulation account (see chapter 3), you are ready to initialize a new competition. This chapter describes the initialization process. The process establishes the historical data the teams need to enter their first set of decisions. You may initialize a new World using the standard economic data, new economic data using a random starting point or new economic data with an explicit starting point. These choices will be discussed below.
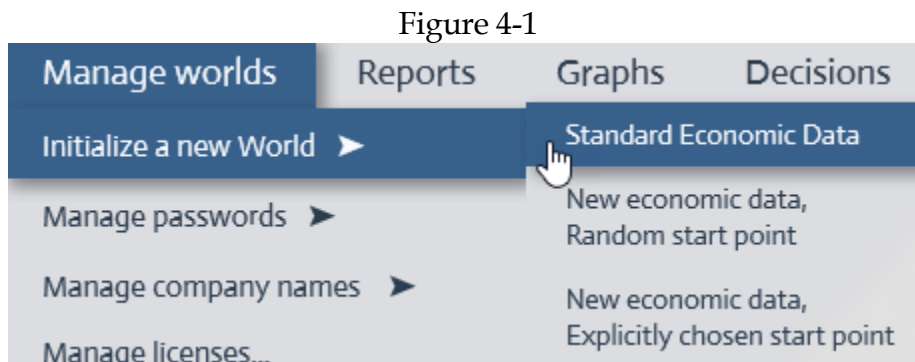
Figure 4-1

If you choose standard economic data a screen will open offering the following choices as shown in Figure 4-2:

Figure 4-2

World numbers start from 1 and increment sequentially with each new World you initialize. You may choose a different World number using the drop-down menu. In the example, three Worlds have been previously initialized, thus the next world is 4. If you had previously deleted World 2, the World number suggested would be 2.

Continue by setting the number of companies in the World, from 3 to 8, then select the country you want to use for the fourth market area, Merica4, Nystock, Pandau, or Sereno. Each of these countries is discussed in the BPG Environment section of the Quick Start Manual and the Player's Manual. Choosing Merica4 removes the international dimension from the simulation. The final check box will automatically run the simulation through the first two years making the historical data complete and ready for the teams to examine using the Player's Program. Then click the Create button and in a minute a message will appear stating that the World has been created.

If you had unchecked the box to run Year 2, Quarter 4 immediately, the simulation will be run through Year 2, Quarter 3. Then you would be able to alter the Quarter 4 decisions from the standard set prior to running Quarter 4. More on running the simulation below.

Figure 4-3
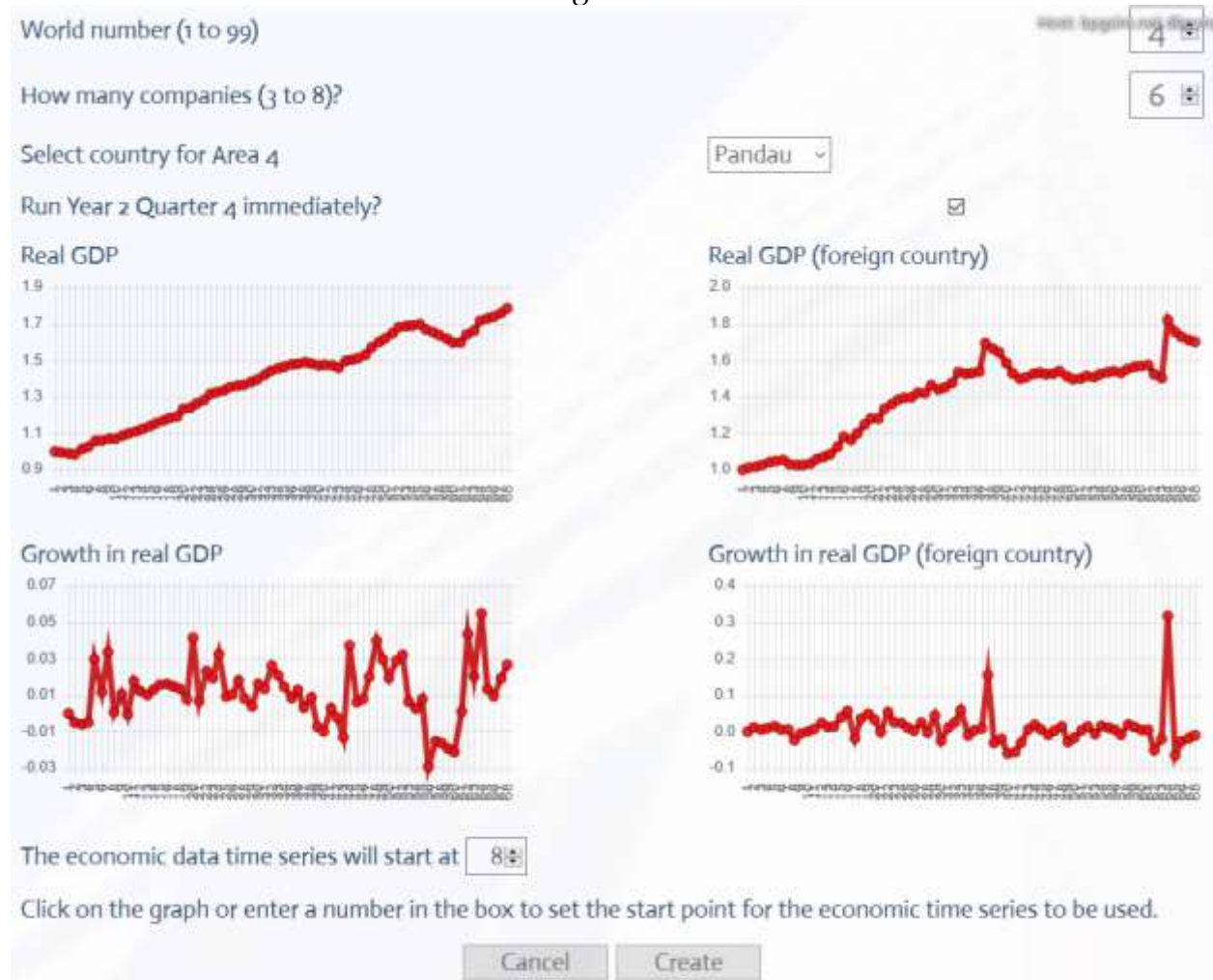
Appendix A contains a series of economic data available to use in setting up a competition. The series is listed by quarter. If you want to use a different series than the standard set, you may choose to initialize the simulation selecting new economic data, random starting point, or new economic data, explicitly chosen starting point. If you choose the latter, the screen shown in Figure 4-3 will appear.

You have seen the top half of Figure 4-3 before. The graphs showing real GDP and the growth of real GDP are for the data series starting with quarter 8 shown in the lower selection box. If you change the quarter, the graphs will change to reflect the new starting quarter. Use the graphs or the data shown in Appendix A to select your starting quarter. Move the cursor along the graph to see the quarter of interest. Then click the Create button. In a minute a message will appear stating the World has been created.

Now you are ready to run the simulation after the teams have entered their decisions for Year 3, Quarter 1. If you initialize for Year 1, Quarter 1 (see below) you will run the simulation to establish new historical data for the eight quarters of Years 1 and 2.

5. RUNNING THE BUSINESS POLICY GAME

After initializing a World for a simulation competition (Chapter 4), you are ready to run the simulation and view and/or print reports for the first quarter of play, Year 3, Quarter 1. The historical data generated during the initialization process created Years 1 and 2

Running the Simulation

Once participants have started to play the game, the simulation should be run precisely at the time either specified by the simulation administrator or previously agreed upon with the game participants. (See Chapter 2 for a discussion of the simulation schedule.) Our rule always has been that a team may revise its decision set at any time prior to the minute that the simulation is scheduled to be run.

Normally, all the decisions for the quarter will have been entered prior to the time set to run the simulation. Any missing decisions will be shown in red under the Missing Decisions heading of the Home screen. If a team's decision file is missing, there will also be a message to that effect in a dialog box when you run the simulation. You then must decide whether to use the team's decision set from the previous period or abort the program and ask the team to enter their decisions prior to running the program.

Running a Single Quarter
Select the World you want to run from the home screen under the Simulation heading. To run the simulation, click on the Simulation button and select from the dropdown menu shown in Figure 5-1.

Figure 5-1
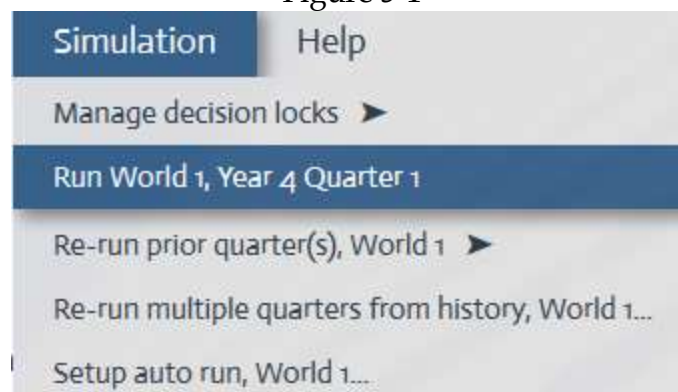
When the run is completed, you will be notified via the dialog box shown below.

Figure 5-2
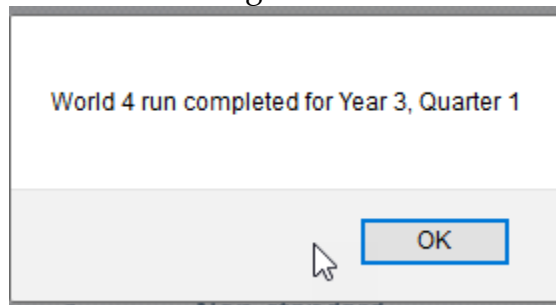
Rerunning a Quarter

There are times when the administrator needs to change a decision file for either the previous quarter or several quarters back. This can be done by rerunning the quarter before the change needs to be made, make the change and then running all quarters up to the current quarter. Select the quarter prior to the quarter where the change needs to be made as shown in Figure 5-3.

Figure 5-3

Rerunning Multiple Quarters

If a change needs to be made several quarters back, rerun the quarter requiring the change according to the discussion above. Then you must rerun each subsequent quarter to return to the current quarter. You can quickly do this by selecting rerun multiple quarters from history as shown in Figure 5-4.

Figure 5-4

Select the quarters you want to rerun from the window that opens shown in Figure 5-5.

Figure 5-5
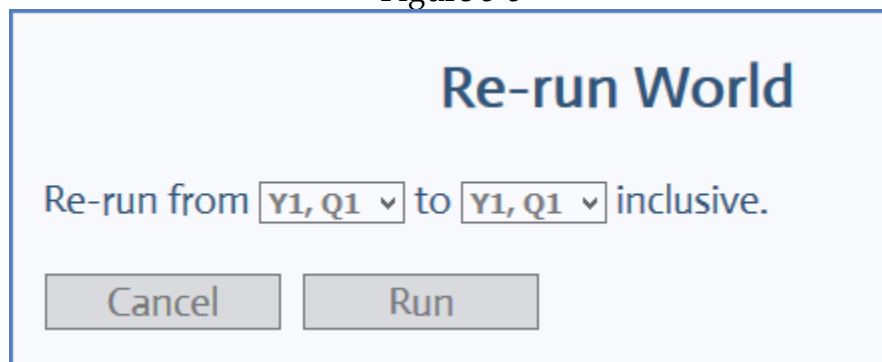
Running Multiple Quarters on a Schedule

    BPG can be set to automatically run at a specific time each day or week. For example, the program can be scheduled to run every Thursday at 2 p.m. for as many quarters as desired by selecting the auto run menu item shown in Figure 5-6.

Figure 5-6
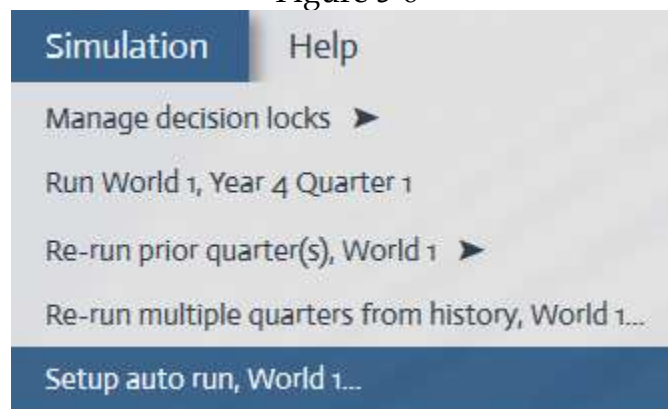
    The window shown in Figure 5-7 will open for setting the dates and times the program will be run. First select the Last quarter drop down menu shown in Figure 5-7

and select the last quarter the competition will be run, e.g. 7-4. As an example, following running 3-1, click on Weekly near the bottom of the figure and click on the Tue box. The simulation will be run every Tuesday at the time 3-1 was run until Year 7, Quarter 4 has been run. If the administrator decides to start auto run after 3-3 has been run, the setup is the same and runs will be made at the time 3-3 was run. If it is desired to make daily runs, the Daily button should be selected and BPG will be run each day at the time 3-3 was run until 7-4 is run. Auto run can be turned off at any time by clicking the Turn off auto run button. Be sure and save timings once they are set by clicking the Save button.

Auto run may be started in any quarter and may be canceled by clicking the Turn off auto-run button. The dates and times shown on the page may edited at any time if changes are desired.

Figure 5-7

Set up simultion run times for World 1

The simulation can be set up to run as many quarters as needed on a preset schedule.

year - quarter

Date and time

Use the dropdown below to select the number of quarters to be run automatically.

Last quarter [⌄]

You can set spcific dates and times in the boxes in "Data and time" column on the left. You can also use the buttons below to fill the dates and time to set intervals.

[TESTING ONLY : 15 minute intervals]

To introduce students to the simulation, you might set a short interval time between quarters to be completed in a single (long) class period. The next options set four quarters at 45 and 60 minutes respectively.

[4 Quarters, 45 minute intervals]

[4 Quarters, 60 minute intervals]

These next two pre-sets allow you to set up a schedule on a daily or a weekly basis. The intervals will be set relative to the date and time of the first quarter [3-1]

[Daily]

[Weekly] ☐ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat

[Turn off auto-run]

Save your timings...

[Save]

Running Multiple Quarters Close Together for Demonstration Purposes

        Begin by clicking on Simulation/Setup auto run as shown in figure 5-7. Next click on the 4 Quarters, 45 minute intervals button or the 4 Quarters, 60 minute intervals depending upon the interval desired. The four quarters will be shown under the Year – quarter heading beginning with 3-1. The date and time to run will be shown under the Date and time heading. The date and time numbers can be edited to fit ones needs. Be sure and save the timings after they are set.

Simulation Reports

        After the simulation has been run, a series of reports is available to the simulation administrator and the companies. Industry reports are provided to all. The administrator and the respective companies receive company reports (complete financial statements and detailed operating information). The administrator receives scoring reports which may be shared with the companies at the administrator's discretion. Additional reports are available only to the administrator (administrator's summary report, decision summaries for all companies, the summary report on the effect of the teams' marketing programs, etc.),

Viewing Reports

        Click on the Reports menu and select the report you want to view from those shown in Figure 5-8. If you need to save a paper copy of a report, it may be saved as a PDF file by clicking on the Save as PDF button at the bottom of the report. You may view reports from any quarter that has been run during a competition. While the Player's Program does not automatically include the **H report containing Z-Score** evaluations or the **I report containing Pro-score** evaluations, they can be made available to the Player's Program by checking the H and/or I box under the Access to Reports heading on the Home page.

        Because all reports are available for all quarters run, you may not need to print many reports thus saving paper. They are available from anywhere you have an Internet connection to a web browser.

Print Reports

        To print reports, select the desired report(s) from the print menu and save as a PDF report. Then print the PDF file.

Figure 5-8

| Reports | Graphs | Decisions | Sim |

Income statement (A) World 4 ➤

Cash Flow statement (B) World 4 ➤

Balance sheet (C) World 4 ➤

Operating report I (D) World 4 ➤

Operating report II (E) World 4 ➤

Market Research Reports (O) World 4 ➤

Quarterly Industry Report (F) World 4 ➤

Annual Industry Report (G) World 4 ➤

Decision Summary (L) World 4 ➤

Marketing Effect (M) World 4 ➤

Administrator's Summary Report (N) World 4 ➤

Z-score Report (H) World 4 ➤

Pro-score Report (I) World 4 ➤

Years 1&2 Report (J) World 4...

Administrator's Reports Only, World 4 ➤

All Reports World 4 ➤

Simulation Graphs

Click on the Graph menu to select one of the variables to graph shown in Figure 5-6. Each graph shows the performance of all the companies in the world for the quarters that have been completed. All graphs are also available to players.

Figure 5-9

Graphs   Decisions   Simula

Sales ($) for World 4

Net income ($) for World 4

Assets ($) for World 4

Equity ($) for World 4

Net income / Sales (ROS) for World 4

Income / Assets (ROA) for World 4

Debt Equity Ratio for World 4

Dividends / Share for World 4

Earning / Share (EPS) for World 4

Net income / Equity for World 4

Market share for World 4

Unit production for World 4

Unit sales for World 4

Unit production cost for World 4

Unit selling costs for World 4

Share price for World 4

Investor's ROI for World 4

Market capitalization for World 4

Simulation Run Summary

```
┌─────────────────────────┐
│   Select World Number   │
└─────────────────────────┘
              │
              ▼
┌───────────────────────────────────────────────┐
│        Run World #, Year #, Quarter #          │
│                      or                         │
│  Re-run prior quarter(s), World #, Year #, Quarter #  │
│                      or                         │
│      Re-run multiple quarters from history      │
│                      or                         │
│           Setup autorun for World #             │
└───────────────────────────────────────────────┘
              │
              ▼
     ┌─────────────────────┐
     │   Simulation Run    │
     │      Complete       │
     └─────────────────────┘
```

Reports Summary

```
┌─────────────────────────┐
│   Select World Number   │
└─────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Select Report(s) to View   │
│  If Printing Reports:        │
│     1.  Save as PDF files    │
│     2.  Print PDF files      │
└─────────────────────────────┘
```

6. DECISION ENTRY

Entering Decisions

Team decisions are the driving force behind *The Business Policy Game*. Once the history and parameter files are set, the dynamics of the game are controlled entirely by the team decisions. Normally decisions are entered by the players using the Players Program. Use of the Player's Program is described in the Player's Manual. However, decisions may be entered by administrators using the Administrator's Program.

The Decisions menu item on the Home screen may be used to enter new decisions after the competition has begun (starting with Year 3), to review or change previously entered decisions or to create new decision sets for Years 1 and 2. As with all other menu choices, choose the world number first by clicking the World button of the world you want to use if it is different than the world highlighted on the Home screen. The Administrator's Program contains two additional items not found in the Player's Program, income and asset adjustment fields.

Income and Assets Adjustments

The administrator's decision-entry window contains an Adjustments menu item that may be used to adjust quarterly income and/or the asset structure of a firm.   When the Adjustments menu item is clicked, it opens an Income/Assets Adjustments window. The Income Adjustment field may be used by the administrator to assess consulting fees, penalties or whatever additional charges may be justified. Credits may also be entered in this field to reward actions external to the model or to correct an excessive charge incurred by a firm. The administrator is given a great degree of flexibility in altering income by using this field judiciously. All charges or credits entered in this field will be assessed in dollars against the parent company. All entries are in thousands of dollars.

The minimum credit to income is $1,000 (entered as 1), and the minimum debit is $1,000 (entered as -1). The maximum credit is $99,990,000 (entered as 99999), and the maximum debit is $9,990,000 (entered as -9999).

Figure 6-1

Figure 6-2

The Assets Adjustment field is used to shift assets between cash and the Other Investments entry on the balance sheet. Positive numbers increase Other Investments and decrease cash. Negative numbers decrease Other Investments and increase cash. The minimum and maximum entries are the same as stated for income adjustments above. Of course, the shifting of funds is limited by the size of the cash and Other Investment accounts. This field can be used to reduce excess cash by investing company funds in a day care center for employees' children, a local concert hall or stadium or any other non-revenue generating use of funds. It can also be used to rescue a firm that is cash short and cannot raise funds due to having maxed out its sources of credit. As a last resort, Other Investments can be sold to provide additional cash.

Entering Team Decisions

In order to enter team decisions, you must go to the Player's Portal. Prior to that, click on Manage Worlds on the Home page menu and select Manage Passwords. A window will open showing the user name and password needed to access the team's decision entry form. Instructions for completing the form are found in the Player's Manual.

Figure 6-3
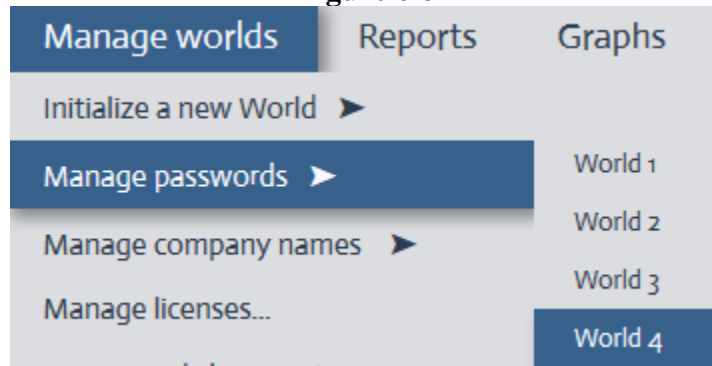
Then click on the Decisions menu item (Figure 6-5) and select Edit Decisions to bring up the Sign-on and Password windows that will lead to the Player's decision form.

Figure 6-5
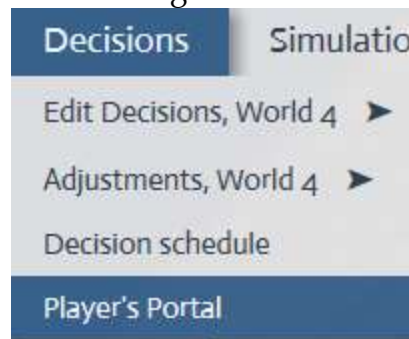
Create New Decisions for Years 1 or 2

The third option is used when you decide to create a new two-year start-up history for a world. (We advise you, however, to use the "standard" default history that is provided, at least for the first time through the game.) This option allows you to create decision files for the two historical years, Years 1 and 2. Economic data values and parameter files also may be changed from their default values during the

initialization process and/or via the Setup Menu. If you wish to alter decision files, history files or parameter files that alter economic history, you must initialize the simulation for Year 1, Quarter 1 (see "Setup and Initialization," Chapter 4).

After initialization has been completed, enter the first set of decisions for Year 1, Quarter 1. Then run the simulation for Year 1, Quarter 1. Then enter a decision set for Year 1, Quarter 2 and run the simulation for that quarter. Continue in sequence for all the quarters of Years 1 and 2 in order to provide a starting history for the game participants.

You will need to create new decision files for Years 1 and 2 when you alter the history and/or history altering parameter files. Product demand will change with new economic data and/or parameters, and thus, decisions that were appropriate for the standard data set may not be appropriate for the new conditions you create.

Because identical decisions for all firms normally are used for Years 1 and 2 (providing identical starting conditions for all teams), you need to enter a decision set only for Company number one. The decision-entry program automatically will reproduce the same decision set for each of the other simulated firms. The Create New Decisions choice will cause eight identical decision sets to be created when you enter the set for Company 1. That will make enough decisions for any number of teams that you might choose (within the limits of the simulation).

Please pay particular attention to the section, "Multiple Worlds," in Chapter 4 if you wish to end up with identical starting positions for all teams in a single world, as well as for all other worlds.

Decisions Summary

```
                    ┌──────────────────────┐
                    │      Decisions       │
                    └──────────┬───────────┘
                               │
                               ▼
              ┌─────────────────────────────────────┐
              │  Individual Team Decision Entry      │
              │       Central Decision Entry         │
              └──────────────────────────────────────┘
                   │                          │
                   ▼                          │
┌─────────────────────────────────────────┐  │
│ Enter New Decisions                      │  │
│ Review/Change Decisions – Simulation Not │  │
│ Yet Run                                  │  │
│ Review/Change Decisions – Simulation Has │  │
│ Been Run                                 │  │
│  Create New Decisions for Years 1 & 2    │  │
└─────────────────────────────────────────┘  │
                   │                          ▼
                   │      ┌─────────────────────────────────────────┐
                   │      │ Enter New Decisions                      │
                   │      │ Review/Change Decisions – Simulation Not │
                   │      │ Yet Run                                  │
                   │      │ Review/Change Decisions – Simulation Has │
                   │      │ Been Run                                 │
                   │      │ Create New Decisions for Years 1 & 2     │
                   │      └─────────────────────────────────────────┘
                   │                          │
                   └──────────┬───────────────┘
                              ▼
                 ┌──────────────────────────┐
                 │  Enter Year and Quarter  │
                 └────────────┬─────────────┘
                              ▼
                 ┌──────────────────────────┐
                 │  Decision Entry Window   │
                 └──────────────────────────┘
```

7. KEEPING TRACK OF THE COMPETITION

Keeping up with a fast-moving competition can be a challenge. We have provided several tools to help you keep abreast of developments in the worlds you are running. Much useful information can be gleaned from the reports generated with each simulation run. We have created a graphing program that you can use to compare quickly the performance of all teams in a world on a quarterly or a yearly basis. We have also included two scoring programs that can be used to evaluate teams on a series of weighted variables each quarter. The scores are based upon the cumulative performance to date.

Reports

When the simulation is run, a series of reports are generated. Most are provided to all teams each quarter. These reports provide an extensive amount of information that may be used by the teams and the administrator to keep abreast of the competition. A set of example reports for Year 2, Quarter 4 is provided to each team in Appendix C of *The Business Policy Game: Player's Manual*. A list of the reports and the time they are issued is shown below. The administrator receives a copy of all of the team reports, in addition to others that may be withheld because they provide information about competitors that would best be kept confidential.

We have made a conscious effort to err on the side of providing the teams with too much information rather than too little. We believe students need to learn to sort out important data from the chaff. We also are more interested in students learning as much as possible from the simulated experience and less interested in who is winning the game. However, with this edition, we have withheld some information that the teams would not likely have access to in the business world and have also made some information available for purchase.

Quarterly Reports for All Teams

   1. Consolidated Income Statement
   2. Consolidated Cash Flow Analysis
   3. Consolidated Balance Sheet
   4. Operating Information Report (2 pages)
   5. Quarterly Industry Report (2 pages)

6. Market Research Report (when purchased)

Annual Report for All Teams

1. Annual Industry Report (4 to 6 pages, depending on number of teams)

Historical Reports for All Teams with Year 2, Quarter 4 Output

1. Consolidated Historical Data for Years 1 and 2
2. Financial Data for Years 1 and 2

Quarterly Reports Issued at Administrator's Discretion

1. Z-Score Evaluation Report
2. Pro-Score Evaluation Report

Quarterly Reports for Administrators

1. Administrator's Summary Report
2. Decision Summary Report
3. Marketing Effect Report

You may view the reports without printing them. Whether you want to keep a hard copy is your choice. You can always go back to any quarter and look at the output and print a copy if need be. See Chapter 5 for a discussion on how to access the reports.

Consolidated Income Statement

The consolidated income statement is a quarterly document that provides a separate income statement for each of the four subsidiaries located in the four market areas plus a consolidated statement for the firm. The current exchange rate is shown at the bottom of the statement. This is the exchange rate that is used to translate foreign currency into dollars for the consolidated statement. An example copy of the statement for Year 2, Quarter 4 is shown in Appendix C of the Player's Manual. Chapter 10 of the player's manual also contains a detailed discussion of the entries. Some of the entries in the consolidation are a little tricky. We recommend that you examine the discussion in the Player's Manual prior to fielding questions from the teams. The income statement is useful for reviewing a company's profitability and for investigating details of problems that are discovered when reviewing other statements.

Consolidated Cash Flow Statement

The consolidated cash flow statement shows the cash flows for each subsidiary plus the consolidated cash flows. Cash flows are divided into the net operating cash flow, the net investment cash flow and the net financing cash flow. You might want to watch the cash flows if a company begins to stumble. Is the problem in operations or in financing?

An example copy of the statement for Year 2, Quarter 4 is in Appendix C of the player's manual. The consolidation can be a little tricky in places. If the entries don't seem to add up, we suggest that you look at the detailed discussion in Chapter 10 of the Player's Manual. The translation exchange rate for the consolidation of currency values is found at the bottom of the statement.

Consolidated Balance Sheet

The consolidated balance sheet shows the assets and liabilities separately for each subsidiary and consolidated values for the entire firm. An example copy of the statement for Year 2, Quarter 4 is in Appendix C of the Player's Manual. The consolidation is a little tricky in places. If some of the entries look foggy, we suggest that you read the detailed discussion in Chapter 10 of the Player's Manual. That should shed a little light on the problem. The translation exchange rate used for the consolidation is found at the bottom of the statement. Significant changes in assets or liabilities over a period of quarters might raise your eyebrows, especially if the changes are negative and significantly different than for the other teams.

Operating Information Report

The operating information report provides two pages of data concerning operations that can be used to isolate problems after they arise. An example copy of the Year 2, Quarter 4 report is in Appendix C of the player's manual. It contains sections on production cost analysis; output, inventory and sales analysis; standard cost per unit; sales force analysis and the current period decision summary.

Quarterly Industry Report

The quarterly industry report is a two-page document that provides extensive data on the World's operations. An example copy of the report for Year 2, Quarter 4 is in Appendix C of the Player's Manual. Included are data on the financial market, the GDP, the CPI, the GDP forecast, the exchange rate forecast and finance, and marketing data by company. This report provides a good opportunity to compare performance

across firms. Significant differences may raise some warning flags calling for a more detailed examination of the above statements over several quarters.

Annual Industry Report

The annual industry report provides annual data for each firm. This report is useful for examining trends across companies. The difficulty is that it comes out only once a year. Thus, a problem could be well advanced before a trend is established and remedial action can be taken.

Market Research Reports

Market research may be purchased by each firm each quarter. Research available includes information on advertising expenditures by firm, the sales force size of each firm, the sales force compensation paid per sales person by each firm and two different studies of consumer preference for product quality and product features. All research data contain some random error.

Consolidated Historical Data for Years 1 and 2

The historical data report provides a summary of much of the data found on the quarterly industry report for Years 1 and 2. It is useful for looking at early trends, especially in the economic data. The Player's Manual contains an example copy of the table in Appendix C.

Financial Data for Years 1 and 2

The historical financial data report contains a summary of the firm's income statement, cash flow statement and balance sheet for Years 1 and 2. An example copy is provided in Appendix C of the Player's Manual. This table is useful mostly for teams to understand the history of their firm.

Administrator's Summary Report

This report contains some of the data removed from the Quarterly Industry Report as well as some additional data that was not previously reported. It should not be shared with the team members. The summary report should help game administrators keep abreast of the state of the competition. An example copy of the report for Year 2, Quarter 4 is shown in Figure 7-1 below.

Decision Summary Report

The decision summary report is a consolidation of the decision summary reports of each of the firms in the world. It is available only to the administrator and should not be shared with individual firms. It provides a copy of the exact decisions that went into the computer. An example of the report for Year 2, Quarter 4 is in Figure 7-1.

Figure 7-1

```
World 4                        DECISION SUMMARY REPORT                12-06-2018
Year 2 Quarter 4       BUSINESS POLICY GAME, 5TH EDITION                14:44:23
L      © 2016 by Richard V. Cotter, David J. Fritzsche and Simon A. Rodan
-------------------------------------------------------------------------------
                                                        -------Salespeople--------
         -----Price by Area----- ---Adv. by Area---   ---Hire---    --Transfer---
          1     2     3     4     1    2    3    4     1  2  3  4    1   2   3   4
Co. 1 10.00 10.00 10.00 10.00    46   40   40   40    1  1  1  1    0   0   0   0
Co. 2 10.00 10.00 10.00 10.00    40   46   40   40    1  1  1  1    0   0   0   0
Co. 3 10.00 10.00 10.00 10.00    40   40   46   40    1  1  1  1    0   0   0   0

         ----Commissions-----   ------Sales Salaries-------   Bank          Cap
          1    2    3    4        1      2      3      4      Loan  Bonds    Adj
Co. 1    20   20   20   20      3000   3000   3000   3000      0      0       0
Co. 2    20   20   20   20      3000   3000   3000   3000      0      0       0
Co. 3    20   20   20   20      3000   3000   3000   3000      0      0       0

              Divi   Time  Product     Mod     Qual      Feat    Sales Office Orders
         Stock dend  CDs    R&D   Trng No. 1 2 3 4  1 2 3 4    1     2    3    4
Co. 1      0    0   1000    72    68   1   2 2 2 2  2 2 2 2   80   100  100   65
Co. 2      0    0   1000    72    68   1   2 2 2 2  2 2 2 2  100    80  100   65
Co. 3      0    0   1000    72    68   1   2 2 2 2  2 2 2 2  100   100   80   65

         --------Production by Area--------   ----Layoff-----   --Deactivate---
         --1--   --2--   --3--   --4--  2d Shf  ---Area----- 2nd   ---Area----- 2nd
         Ln Hr   Ln Hr   Ln Hr   Ln Hr  Ln Hr   1  2  3  4 Shf   1  2  3  4 Shf
Co. 1    6 40    0  0    0  0    0  0    0  0    0  0  0  0  0    0  0  0  0  0
Co. 2    0  0    6 40    0  0    0  0    0  0    0  0  0  0  0    0  0  0  0  0
Co. 3    0  0    0  0    6 40    0  0    0  0    0  0  0  0  0    0  0  0  0  0

         --Reactivate---   ---New Lines---   New Addition  -New Plant-   Other
         ---Area---- 2nd   ---Area---- 2nd   ----Area-----  ---Area----- Expense
         1  2  3  4 Shf    1  2  3  4 Shf    1  2  3  4    1  2  3  4
Co. 1    0  0  0  0  0     0  0  0  0  0     0  0  0  0    0  0  0  0       0
Co. 2    0  0  0  0  0     0  0  0  0  0     0  0  0  0    0  0  0  0       0
Co. 3    0  0  0  0  0     0  0  0  0  0     0  0  0  0    0  0  0  0       0
-------------------------------------------------------------------------------
Key:  Company 1
      Company 2
      Company 3
```

Marketing Effect Report

The marketing effect report shows the effect of the marketing decision variables on product demand. The report was used by the authors in the debugging process and

is made available to instructors who wish to use it. It is recommended that the infor-
mation **not** be made available to participants, who must try to estimate these effects
through their analysis of reports. An example copy of the report is shown in Figure 7-2
for Year 2, Quarter 4.

The values in the report may be considered as estimates in the form of
multipliers. These may be interpreted, all other things being equal, as the amount that
the previous quarter's sales would be multiplied by in order to arrive at the current
quarter's sales. For example, the multiplier of 1.14 shown for Company 1 in Merica
Area 2 under sales force would indicate a fourteen percent increase in sales, all other
things being equal, as a result of the sales force factor. As all other things are never
equal, and as the weights for each factor are not included in the file, consider this only
as an approximation. But the relative values compared with those of other companies
are revealing.

The first section of the Marketing Effect Report contains industry-wide data, by
market area, that apply to all companies--the effect of average price changes and the
effect of the economic trend (TSC) including the seasonal factor and changes in real
GDP. The first column is for Merica Area 1, the second for Area 2, the third for Area 3
and the fourth for Sereno.

The second section of the report is separated by company number, with the effects
shown in each of the four market areas for that company (Area 1 on the first line, Area 2
on the second line, and so forth). Included are multipliers showing the effect of
decisions regarding total sales force pay, number of salespeople, advertising and total
effect of the factors in the first three columns. In addition, the specific effect of that
company's price changes and the impact of model changes are shown. Models that
have been on sale beyond the peak of the product life cycle of that model will show a
multiplier of 0.95. New models just going on sale will show multipliers between 0.95
and 1.20.

Figure 7-2

```
World 4                                                    Year 2, Quarter 4
                        MARKETING EFFECT, BY AREA              12-06-2018
                        BUSINESS POLICY GAME, 5TH EDITION      14:44:23
M       ◆ 2016 by Richard V. Cotter, David J. Fritzsche and Simon Rodan
----------------------------------------------------------------------------

                     Area 1      Area 2      Area 3      Area 4
Price (Industry)      1.00        1.00        1.00        1.00
TSC Effect            1.26        1.26        1.26        1.26

           SalesPay  SalesForce   Adv   Tot Prom   Price   Tot Mkt   Model

Company1
Area 1      0.98       1.06      1.05    1.05      0.83     0.87     1.00
Area 2      0.98       1.07      1.05    1.05      1.01     1.06     1.00
Area 3      0.98       1.07      1.05    1.05      1.01     1.06     1.00
Area 4      0.98       1.06      1.05    1.04      1.11     1.16     1.00

Company2
Area 1      0.98       1.07      1.05    1.05      1.01     1.06     1.00
Area 2      0.98       1.06      1.05    1.05      0.83     0.87     1.00
Area 3      0.98       1.07      1.05    1.05      1.01     1.06     1.00
Area 4      0.98       1.06      1.05    1.04      1.11     1.16     1.00

Company3
Area 1      0.98       1.07      1.05    1.05      1.01     1.06     1.00
Area 2      0.98       1.07      1.05    1.05      1.01     1.06     1.00
Area 3      0.98       1.06      1.05    1.05      0.83     0.87     1.00
Area 4      0.98       1.06      1.05    1.04      1.11     1.16     1.00
```

Save as PDF

Graphing Program

You may use the graphing program to examine visually the performance of teams over time in an industry world. Each simulated firm is shown as one line on a graph. You access the graphing program through the administrator's program. (It is also available in the Player's Program.) Click on the Graph button. See the Player's Manual, Appendix A for details of using this utility.

Using the graphing program, the following variables may be graphed shown in Figure 7-3.

Figure 7-3

Variables may be selected for graphing one at a time. A line graph of the variable you have chosen will appear. For example, if you select the variable market share, a graph similar to the one shown in Figure 7-4 below would appear. If you wish to print the graph, pull down the File menu and select Print

Figure 7-4

Market share

	Y3 Q1	Y3 Q2	Y3 Q3	Y3 Q4
Co. 1	0.207	0.209	0.213	0.206
Co. 2	0.199	0.183	0.205	0.197
Co. 3	0.193	0.203	0.196	0.172
Co. 4	0.193	0.198	0.192	0.216
Co. 5	0.208	0.207	0.194	0.209
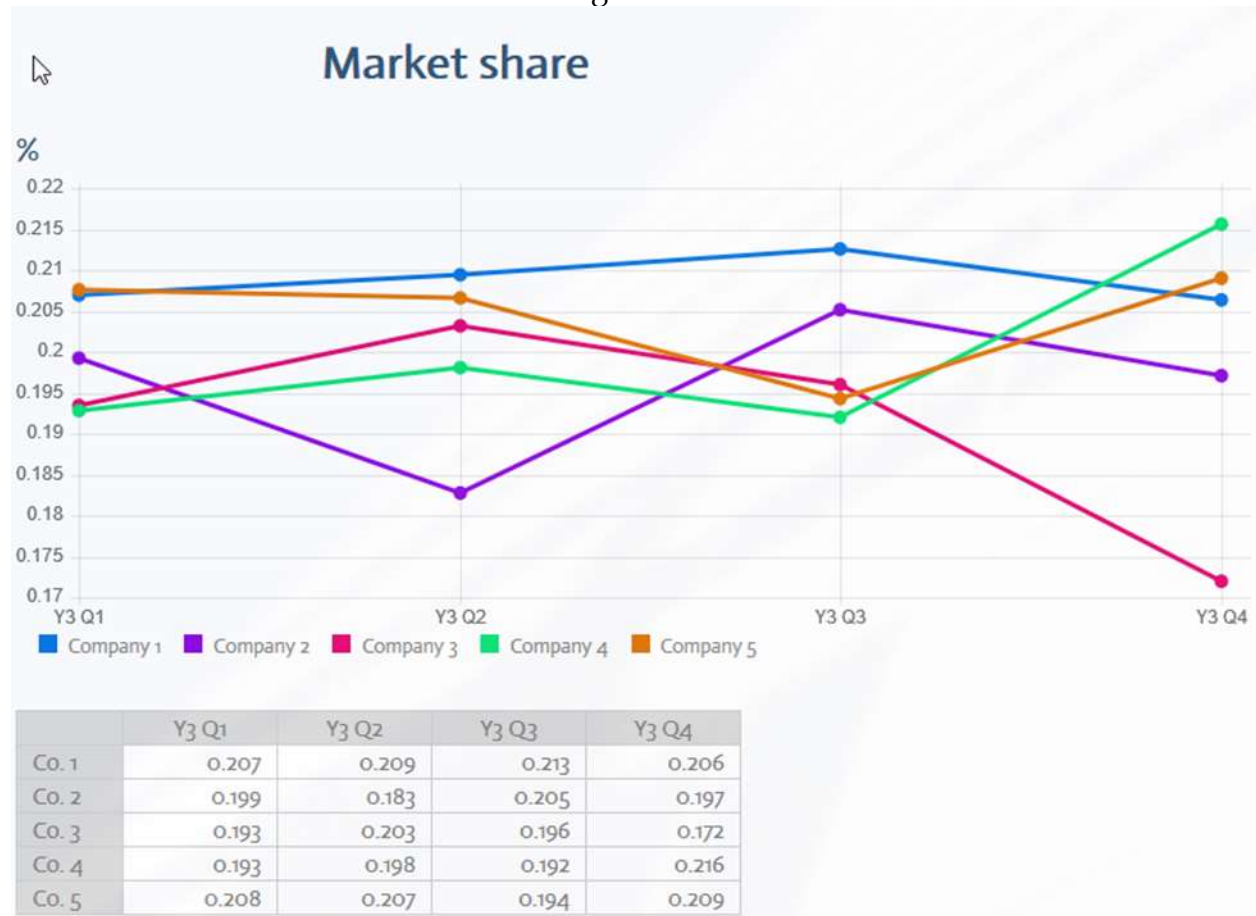
Scoring Programs

We have provided two performance evaluation models that may be used to evaluate team performance. Both are meant to assist in the performance evaluation activity by the simulation administrator or by those who are assigned to judge the performance of the participants. The first model, Z-Score Report, provides a weighted sum of Z-scores on 17 variables for each team. The second, Pro-Score Report, provides a proportional, weighted performance score on your choice of one to ten variables for each team. Both models have been included because some people prefer one model and some prefer the other.

Evaluation reports are available at the end of each quarter. You may decide to provide them to the teams each quarter or you may decide to provide them only at the end of each simulated year. The choice is made when you transfer the reports to the team folders or flash drives or when you print the reports for the teams.

The Z-Score Evaluation Report

       The Z-Score Evaluation Report is a modified version of a program originally
written by a student of Dr. L. V. Entrekin and Dr. Geoffrey Soutar of the University of
Western Australia, who kindly gave it to us. The weights that are supplied with the
program data file are modified from the weights that were developed by the faculty of
the Management Department at the University of Western Australia for use with *The
Business Policy Game*. We have used this model extensively with classes and have
matched it against the independent decisions of the judges in international competition
and find it to be a very effective evaluation tool.

       In addition, it is an evaluation measure that is readily accepted by students. It
tends to match closely our own subjective evaluations and those of the business persons
who judge the international competition. While, in fact, it includes a considerable
subjective element (the weights that are assigned to various measures in the overall
evaluation), students perceive it as taking some of the sting out of what might otherwise
be a very subjective judgment that may be difficult to justify. It does provide some
documentation for a judgment.

       The model summarizes the results of 17 variables from *The Business Policy Game*
at the end of any quarter of play, starting with Year 3. Quarterly values are read from
the history file for these 17 measures of performance and, for each company, totals and
averages of quarterly values are calculated for the period starting with Year 3. Then
z-scores are calculated for each measure for each company (representing the number of
standard deviations that a company's average value is from the mean for all
companies). Z-scores for the 17 variables are totaled, weights are assigned, and the
weighted z-scores are totaled for each company. When a low value is desirable (as in
the bonds/equity ratio) the sign of the z-score is reversed. A summary report of z-score
sums and weighted z-score sums is prepared for distribution to the participants.

       The reports may be viewed, printed from the Printing Reports menu or
transferred to player's folders or flash drives from the Transfer Files menu (starting in
Year 3--See Chapter 5). Weights may be changed at any time, if desired, by choosing
Set Weights for Z-Score Evaluation from the Reports menu. After choosing this option,
a window will open showing the existing values of the weights for each of the 17
variables that are used in the evaluation.

        As noted in the window illustrated below in Figure 7-5, 100 points are allocated
for the weights of these 17 variables. The points all may be placed on one variable or
distributed among the variables in any manner, as long as they total 100. Once weights
are set, they apply to all teams in the world, though different worlds may use different
weights. Just move the cursor around the window to make any desired changes. If you
click Save and the total of all weights, shown at the bottom of the window, does not

equal 100, a warning message will appear. When changes are complete, and the total equals 100, clicking Save will return you the Home menu. You may also decide to rebalance the weight or even reset them to the default values by clicking on the respective buttons at the bottom of the window.

Figure 7-5

Set Z-score weights, World 4

A total of 100 points is allocated to each variable. The weights may be distributed among the variables in any manneras long as each is positive and their total is 100. They can be adjusted using the "Re-balance" button to ensure that they sum to 100. They can also be reset to their default values. Team performance will be scored at the end of each simulated quarter.

	Weight
Net Income	8.00
Total Sales	5.00
Market Share	5.00
Total Equity	5.00
Total Assets	4.00
Fixed Assets	3.00
Stock Price	8.00
Earnings/Share	8.00
Dividends/Share	3.00
Sales/Assets	7.00
Income/Assets	8.00
Income/Sales	5.00
Income/Equity	7.00
Unit Prod Cost	5.00
Investor ROI	8.00
Int Coverage	4.00
Bonds/Equity	7.00
Total	100.00

Re-set to default   Re-balance   Cancel   Save

Save as PDF

If reports are viewed without setting weights first, weight default values will be used. An illustration of the summary report with default weights is shown in Figure 7-6.

Figure 7-6

```
World 4                    Z-SCORE EVALUATION SUMMARY REPORT          12-06-2018
Year 3 Quarter 1           BUSINESS POLICY GAME, 7TH EDITION            15:12:11
H          © 2016 by Richard V. Cotter, David J. Fritzsche and Simon Rodan
--------------------------------------------------------------------------------

    VARIABLE       Co. 1  Co. 2  Co. 3
--------------------------------------------------------------------------------

NET INCOME         -0.71   1.41  -0.71
     weight =8
TOTAL SALES        -1.41   0.71   0.71
     weight =5
MARKET SHARE       -1.41   0.70   0.70
     weight =5
TOTAL EQUITY       -0.71   1.41  -0.71
     weight =5
TOTAL ASSETS       -0.77   1.40  -0.63
     weight =4
FIXED ASSETS        0.00   0.00   0.00
     weight =3
STOCK PRICE        -0.42   0.83  -0.42
     weight =8
EARNINGS/SHARE     -0.71   1.41  -0.71
     weight =8
DIVIDENDS/SHARE     0.00   0.00   0.00
     weight =3
SALES/ASSETS       -1.29   0.12   1.17
     weight =7
INCOME/ASSETS      -0.70   1.41  -0.71
     weight =8
INCOME/SALES       -0.57   1.41  -0.84
     weight =5
INCOME/EQUITY      -0.71   1.41  -0.71
     weight =7
UNIT PROD COST     -0.71   1.41  -0.71
     weight =5
INVESTOR'S ROI     -0.71   1.41  -0.71
     weight =8
INT COVERAGE       -0.71   1.41  -0.71
     weight =4
BONDS/EQUITY       -0.32   0.63  -0.32
     weight =7


--------------------------------------------------------------------------------
Average Scores     -0.70   1.01  -0.31
Weighted Avg.      -0.72   1.07  -0.35
--------------------------------------------------------------------------------
Key: Company 1
     Company 2
     Company 3
```

The Pro-Score Evaluation Report

   The Pro-Score Evaluation Report provides a weighted performance score on ten different variables from *The Business Policy Game* history file. The model may be used in two ways. The simulation administrator may select the weights and score all teams with the same set of weights, or different weights may be used for each team. It may be appropriate to have each team choose its own weights for the variables with which it chooses (or is required) to be evaluated. Selecting a weight of zero removes a particular variable from the evaluation process. The model scores performance on the basis of quarterly results, with the score for each team calculated as an average of the team's performance over the total number of quarters played, starting with Year 3. As with the Z-Score model, reports are available after the simulation has been run for Year 3, Quarter 1.

   The ROI calculation is handled slightly differently because it is a summary calculation which takes into account earnings and dividends over the entire competition from the beginning of Year 3. Team performance is calculated based upon the ROI values from the final quarter of play. If one or more ROI values are negative, the difference between the largest and smallest ROI values is added to all of the ROI values thus converting all ROI values to positive numbers while maintaining the relationships between them.

Figure 7-7

Set Pro-score weights, World 4

A total of 100 points is allocated to each variable. The weights may be distributed among the variables in any manner as long as each is positive and their total is 100. They can be adjusted using the "Re-balance" button to ensure that they sum to 100. They can also be reset to their default values. Team performance will be scored at the end of each simulated quarter.

	Co 1	Co 2	Co 3
Dollar sales	10.00	10.00	10.00
Earnings/share	10.00	10.00	10.00
Income/assets	10.00	10.00	10.00
Income/equity	10.00	10.00	10.00
Income/sales	10.00	10.00	10.00
Market share	10.00	10.00	10.00
Net income	10.00	10.00	10.00
Production cost/unit	10.00	10.00	10.00
Sales expense/unit	10.00	10.00	10.00
Stock price	10.00	10.00	10.00
Total	100.00	100.00	100.00

Re-set to default   Re-balance   Cancel   Save

To set new weights for the ten variables, choose Set Pro Score Weights from the Manage Worlds menu. The teams are evaluated on any combination of the following ten variables: total assets, total equity, sales in dollars, net income, net income/equity, net income/sales, stock price, earnings per share, market share and return on investment. If you do not set the weights, the default weights will be used.

100 weighting points must be allocated over the ten variables. Thus, ten points assigned to a variable would make that variable responsible for ten percent of the total score. The points may be allocated all to one variable, split over two or more variables, or allocated among each of the ten variables. The only restriction is that they must total 100. Different weights may be set for different teams. Default values are 10 points for each of the ten variables for each team, see Figure 7-7. The total of all weights for each team must sum to 100 in order to close the window by clicking Save. You may decide to rebalance the weights or even reset them to the default values by clicking the respective buttons.

Figure 7-8 shows an illustration of a Pro-Score evaluation report for World 2. The illustration shows a case where 20 points were allocated as the weight for the ratio of income to equity, 30 points for earnings per share, 30 points for market share and 20 points for investor ROI. The weights for other variables were set to 0 so those variables are not included in the weighted total. Company 4 in Figure 7-8 had the highest total assets at the end of Year 3 and thus was awarded 100% or 1.00. The total assets of Company 1 were 84 percent of the total assets of Company 4, but because the weight for total assets was zero, that variable did not enter into the weighted total. The proportions are multiplied by the variable weights and summed to obtain a team's weighted total score.

Figure 7-8

```
World 2                  PRO-SCORE EVALUATION REPORT              02-24-2016
Year 3 Quarter 4      BUSINESS POLICY GAME, 7TH EDITION              00:29:06
I     Copyright (c) 2016 by Richard V. Cotter and David J. Fritzsche
------------------------------------------------------------------------------
Performance
  measures         Co. 1   Co. 2   Co. 3   Co. 4
------------------------------------------------------------------------------

Total assets        0.84    0.81    0.86    1.00
     weight            0       0       0       0

Total equity        0.81    0.79    0.79    1.00
     weight            0       0       0       0

Dollar sales        1.00    0.97    0.99    1.00
     weight            0       0       0       0

Net income          0.99    0.72    0.95    1.00
     weight            0       0       0       0

Income/equity       1.00    0.74    0.98    0.82
     weight           20      20      20      20

Income/sales        0.99    0.73    0.95    1.00
     weight            0       0       0       0

Stock price         1.00    0.77    0.96    0.90
     weight            0       0       0       0

Earnings/shr        1.00    0.71    0.95    0.89
     weight           30      30      30      30

Market share        1.00    0.99    0.89    0.91
     weight           30      30      30      30

Investor ROI        1.00    0.00    0.82    0.47
     weight           20      20      20      20

------------------------------------------------------------------------------
   WEIGHTED TOTAL   1.00    0.66    0.92    0.80
------------------------------------------------------------------------------
```

8. MODIFYING THE SIMULATION

The Business Policy Game was designed so that a number of parameters could easily be modified by the simulation administrator. These modifications allow the administrator to alter the characteristics of the economic situation that participants face, modify the cost functions, modify the reaction of the market to price changes, vary the complexity of the environment or set up different starting positions for the teams.

Some parameters must be set when initializing the competition, e.g., the world number and the number of companies in the world, while others may be changed at any time during a competition. This provides the administrator an opportunity to create numerous realistic scenarios throughout a competition. In this chapter, we discuss adding company names and review the numerous parameter changes which can be made to accomplish the following:

> Adding Company Names
> Changing the Companies' Home Areas
> Changes to the Geographical Environment
> Varying the Level of Complexity
> Altering an Ongoing Competition
> Creating New Historical Data

We recommend reading the last section on creating new historical data only after one has run several competitions using the standard historical data.

Adding Company Names

To add or change company names, select Manage Worlds/Manage Company Names from the Home menu. The names dialog box (Figure 8-1) will open allowing you to enter or edit names. Company names are used only to identify copies of the printed reports for the simulation. They are most easily entered when initializing a competition but may be added or changed prior to any simulation run. Names do provide a means of participant identification and interest. Some instructors like to have the surnames of individual team members included on the printed reports to more easily identify which students are on which team. Others ask each company to choose its own corporate name. Some names that have been chosen by students are quite innovative. Company names may be up to 50 characters long. When finished, click OK to save names. Company names may also be added or changed from the Player's Program. Thus teams may be tasked with entering their own company names.

Figure 8-1

Set or change company names, World 4

Company #   Company name (max 50 characters)

1   World 4 Company 1

2   World 4 Company 2

3   World 4 Company 3

Cancel   OK

Changing the Simulation Environment

Environmental variables may be changed to simplify the competition or alter the nature of the competition. Any alterations must be completed prior to running Year 3, Quarter 1. These are discussed below.

Changing the Companies' Home Areas

The simulation establishes default home areas for each company as described in the Player's Manual. However, this may be altered prior to running Year 2, Quarter 4 so that the home area of any company may be established in any Merica area. Any combination is possible including placing all of the home areas in one Merica area. To alter the home area assignments, initialize a world for a competition. Prior to running Year 2, Quarter 4, select the Manage worlds/Review and change parameters/Environment. The following dialog box will open (Figure 8-2):

In our example we have set Area 1 as the home area for all companies. Then we would run Year 2, Quarter 4 (2-4) to create the starting position for a competition. If we had already run Year 2, Quarter 4 and wanted to change the home area locations, we could set the home areas to their desired locations and then rerun Year 2, Quarter 4 to achieve the same results.

Figure 8-2

Environment, World 4

Changing the Geographical Environment

  The Business Policy Game offers a choice of geographical environments for the fourth market area. The default is Sereno, a Latin America country. Alternatively, the game administrator may choose Merica 4 (making the competition a domestic competition), Nystok (an Eastern European country) or Pandau (an Asian country). The three foreign countries each have a different economic environment while Merica 4 has the same economic environment as the other three Merica areas as it is part of the same country.

  The choice for the fourth area is made when a competition is initialized (see Chapter 4). Separate sets of historical data have been provided for each of the environments, thus new historical data does not have to be created when changing from one environment to another. New historical data, of course, may be generated for any of the environments (see "Changes Requiring New Historical Data" below). Students should be told which environment they will compete in prior to the beginning of the competition. They should be encouraged to read the description of their environments in Chapter 3 of the Player's Manual.

Changing the Player's Reports Language

The Player's Reports may be viewed in English, Portuguese or Spanish. The language for each company may be different. To select a language for a company, click on Setup/Review/Change Parameters and then select Environment and click OK. At the bottom of the window that opens, you can select the language for each company's output. The next time you run or rerun the Administrator's Program, the output will be created in the selected languages. The Administrator's reports are always in English. The reports for each company will be in the selected. When the students open the reports using the Player's Program, the reports will appear in their language.

Varying the Level of Complexity

In Chapter 2, we said that you could vary the complexity of *The Business Policy Game* in several ways.

Creating a Domestic Competition

One of the easiest ways to reduce the complexity of the game is to choose Merica 4 for the fourth market area when initializing a competition as shown in Figure 8-3. That will eliminate the need for teams to keep track of two economic environments or to deal with exchange rates when consolidating financial statements. (Of course this eliminates the learning that occurs when wrestling with these issues.) We encourage you to make this choice if using the simulation with lower level business students or with students that may have difficulty handling the international dimension.

Figure 8-3

World number (1 to 99)	4
How many companies (3 to 8)?	3
Select country for Area 4	Merica 4 ⌄
Run Year 2 Quarter 4 immediately?	✔

Cancel   Create
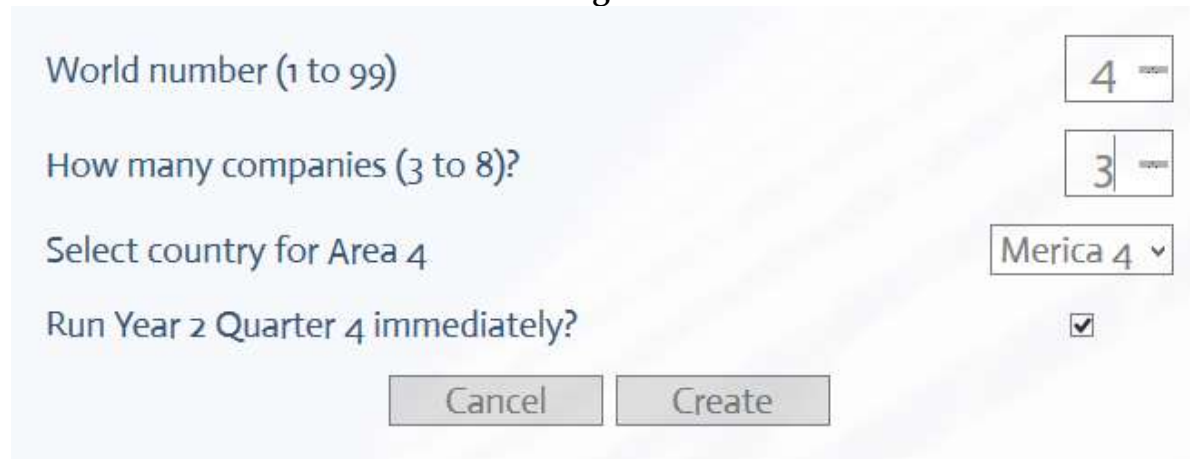
Eliminating Market Segmentation

To simplify the product decisions and remove the market segmentation effect from the simulation, inform the teams that they cannot alter the quality and/or the features of the products they market. The quality level for all products must remain at level 2 and the

features level for all products must remain at level 2. This may be relaxed later to allow the teams to experiment with market segmentation (see below).

You can fix the quality and/or the feature levels of the products at level two by clicking Manage Worlds/Review and Change Parameters/Environment. Click on fixed for quality levels and for features levels. When these parameters are set to fixed, the quality and features levels for each team will be set at level two regardless of what a team enters in the player's program. You can also opt to fix only one of the parameters and allow the other to be changed or to fix the parameters for a period of time and allow them to be changed in a later quarter. Be sure to inform the teams if you relax the parameters. As the first eight quarters were run with quality and features levels set to level two, fixing the parameters will cause no discontinuity between Year 2, Quarter 4 and future operating results.

If you decide to fix the quality and features levels, we recommend that you remove the market segment migration for all areas. Otherwise shifts in demand would take place in the areas with the teams being unable to adjust to the new market conditions. Click Manage Worlds/Review and Change Parameters/Marketing Parameters/Market Segment Migration (Figure 8-4). The Market Segment Migration dialog box will appear.

Figure 8-4
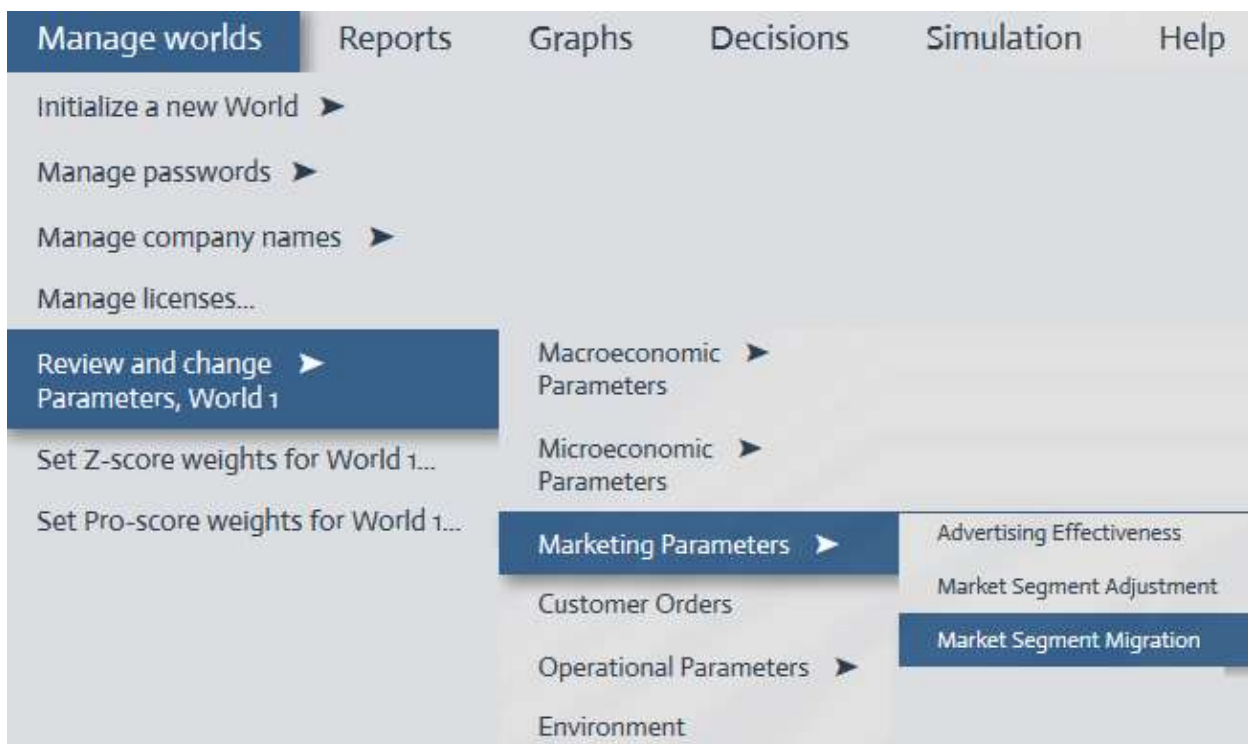
Set all the parameters to zero (Figure 8-5). If you decide to allow either the quality or the features levels to change, you should alter the market segment migration for each

area to reflect the shifts you would like to see in that area. See Market Segmentation Migration below.

Figure 8-5

Market Segment Migration, World 4

	Qual 1	Qual 2	Qual 3
Feat 3	-1.00	1.00	2.00
Feat 2	-1.00	2.00	1.00
Feat 1	-2.00	-1.00	-1.00

	Qual 1	Qual 2	Qual 3
Feat 3	-1.00	-1.00	-2.00
Feat 2	1.00	2.00	-1.00
Feat 1	2.00	1.00	-1.00

	Qual 1	Qual 2	Qual 3
Feat 3	-1.00	1.00	-1.00
Feat 2	1.00	0.00	1.00
Feat 1	-1.00	1.00	-1.00

	Qual 1	Qual 2	Qual 3
Feat 3	-2.00	1.00	2.00
Feat 2	0.00	-2.00	0.00
Feat 1	2.00	1.00	-2.00

Cancel   Save
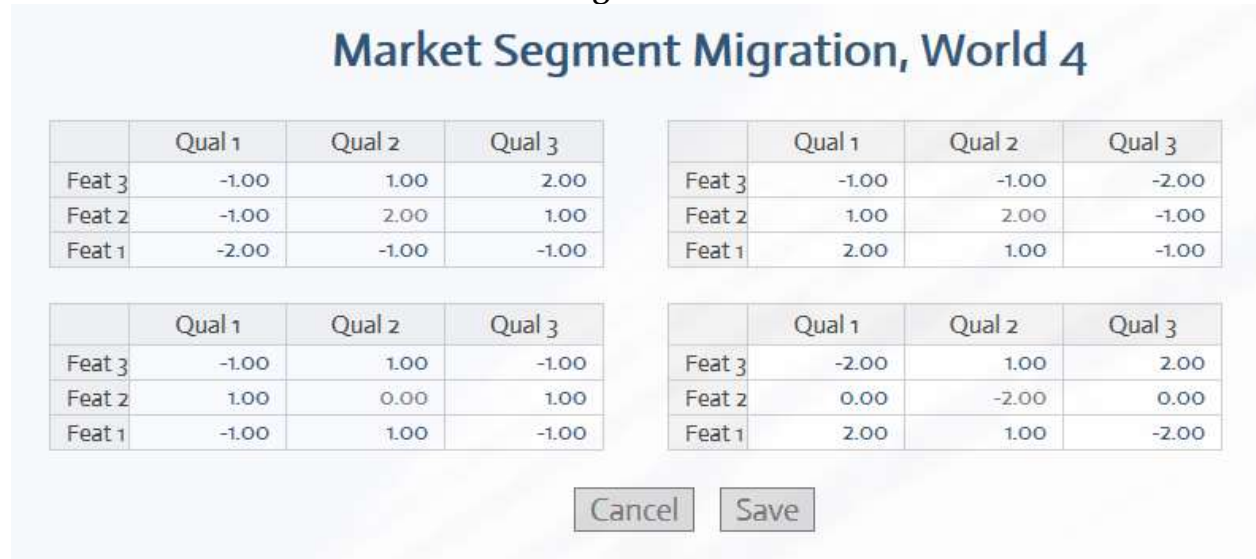
Closing the Sales Office in Market Area 4

You can further simplify the simulation by closing the sales offices in Merica4 for all teams. In Figure 8-2 the sales offices is set as closed in the fourth market area. This may be done prior to running Year 2, Quarter 4 when you are initializing a competition. It may also be done after running 2-4 by closing the sales office and rerunning 2-4. This will cause some discontinuity with the previous decisions in that the earnings and costs from the fourth market area will not be available. However, this may be explained by stating that the previous management decided to pull out of the Merica4 area. You may want to maintain this policy during the entire competition or you may provide the option of opening a sales office in the area at some quarter in the future. When the sales offices are closed, they will remain closed regardless of what the teams enter in their decision set.

Alternatively, you might want to initialize a competition with one of the three foreign countries but shut down the sales office in the foreign country so that the competition begins as a domestic competition. The teams may be told that their firm was recently acquired and the new owners decided to pull out of the foreign market in Year 2, Quarter 4. At some time during the simulation, you can announce that the teams can reenter the foreign market if they desire beginning with a specific year and quarter. Then you can change the parameter closing the office to open that will allow a team to open an office. It should be noted that setting the parameter to open will not open sales offices. Each team must build a new sales office in order to open an office. Instructions for building a new sales office are found in the Player's Manual.

Closing a Company

There are times when an entire team drops a class or enough students leave to cause a reorganization resulting in the loss of a company. When this happens, a company can be removed from the competition by selecting Manage Worlds/Review and Change Parameters/Environment. The dialog box shown in 8-2 will appear. Uncheck the box for the company which is to be closed. It can be any of the companies in the competition. Make sure you close the correct firm. **A company that is closed cannot be reopened later in the competition.** Save your changes and continue the competition. The closed company will disappear and the competition will proceed as though the closed firm never existed. The customers patronizing the closed company will shift to the companies still operating in the World.

Changing Macroeconomic Parameter Values

Click on Manage worlds/Review and change Parameters/Macroeconomic Parameters and select the parameter(s) to change (Figure 8-6).

Figure 8-1
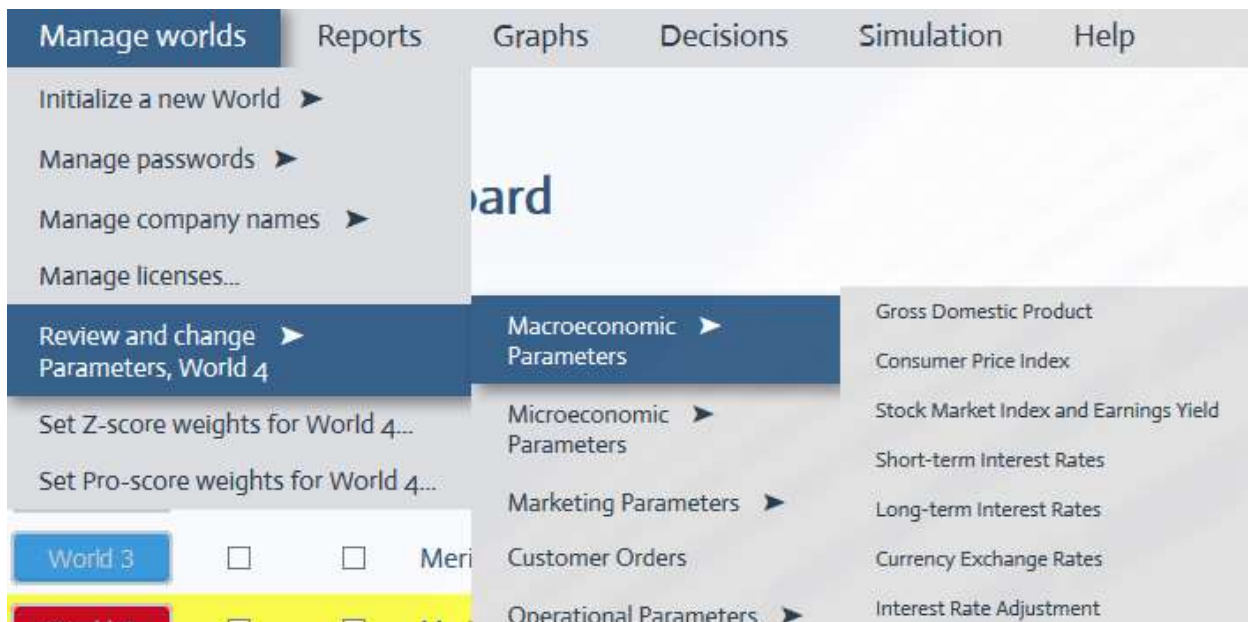
Gross Domestic Product

When you choose to use new economic data, you will be asked to choose the starting point for 36 consecutive quarters of data from a table of 104 quarters of economic data. This will automatically generate the required 36 quarters of data from that set to use with any given series of simulation runs from Year 1 through Year 7 (including the historical data of

Years 1 and 2). A set of these data is included in Appendix A, and its use is described in connection with initializing history files in Chapter 4. If you want to keep the standard economic data set, select quarter 50.

Altering the economic situation involves changes in the Gross Domestic Product (GDP), interest rates, stock market data, the Consumer Price Index (CPI) and the exchange rate. This can be done most easily while initializing history files for Year 1, Quarter 1, as described in Chapter 4. There is a wide variety of economic environments which can be created by choosing from the 104 quarters of economic data distributed with the simulation. This should provide a sufficient number of different environments for most simulation administrators.

If additional adjustments are desired, it is recommended that alteration of economic variables be done following initialization and prior to running Year 1, Quarter 1. Then the new economic situation will be reflected in the two years of historical data that are presented to the participants at the beginning of Year 3. Changing values later is tedious, and you run the risk of generating unrealistic relationships among the various time series that are included in the simulation. This may be a suitable way to make a few changes, if desired, after the game is under way but is not recommended for changing the whole economic situation.

If, for some reason, you decide to change economic data after running Year 2, Quarter 4, any changes to economic variables should be made in a coordinated fashion. Changes in the value of **real** GDP will affect the level of sales for all companies in *The Business Policy Game*. The **nominal** GDP values in the parameter file are in the form of an index, with Year 2, Quarter 4 equal to 100. Nominal GDP is reported in the Quarterly Industry Report and must be deflated by the Consumer Price Index to find real GDP. Changes may be made in the nominal GDP values starting with Year 3, Quarter 1 as long as continuity is maintained with the values for the first eight quarters of history, and relationships with other economic data are kept reasonable. Economic data tend to be related to each other, and reasonable relationships should be maintained among the various variables involved.

Consumer Price Index

In an inflationary economy, prices tend to follow a relentless upward path. The participants in the simulation soon learn the effects of inflation on costs and prices. Inflation tends to be much higher in Sereno than in Merica. This relationship should be maintained. Make changes very carefully as inflation, measured by the CPI, is closely linked with all other economic variables. Flippant changes could create a real monster.

There are several incidents of hyperinflation in the 104 quarters of economic data that are distributed with the simulation. The series is based upon real data and, thus, real hyperinflation. Hyperinflation tends to test the mettle of most game participants. Coping

with it is a real learning experience for the teams. All the cost functions in the simulation are linked to the Consumer Price Index for their respective country. To be successful, participants must add to the inflationary pressure by charging higher prices in order to keep revenues above the level of expenses.

Market Index

The values for the stock market index do not affect the outcome of the game but do affect the level of company stock prices. Individual company stock prices tend to follow the direction of the market, all other things being equal. Stock market variables are included to provide clues regarding the economic situation for the players. The stock market index has been a leading economic indicator historically, and this should be maintained for at least a portion of the seven-year period of the simulation. Note that leading indicators do not always lead the changes in the economy, and there have been many false signals in the past.

Interest Rates

The values for interest rates will affect the cost of borrowing for participating teams. The interest rates in the 104 quarters of data distributed with the simulation are real rates that are related to the other economic variables for each quarter. Make any changes carefully. Otherwise, you may create an unrealistic economic environment that will seriously damage the educational experience created by the simulation. Historically, interest rates have been a lagging economic indicator, and this relationship should be maintained for at least a portion of the series over the nine years covered in the historical data and the simulation.

Exchange Rates

Exchange rates are used to convert transaction amounts between dollars and foreign currency and to translate the currency values to dollars for consolidated financial statements. These rates are closely tied to the other economic variables in the 104 quarters of data distributed with the simulation. The rates are taken from actual rates and have been indexed so that the Year 2, Quarter 4 exchange rate is 6 units of foreign currency to the dollar. If you make changes, do so carefully. You run the risk of creating a Camelot or a Hades. Either way, your students will lose.

Interest Rate Adjustments

The interest rate parameters allow the administrator to adjust the rates charged to each individual firm depending upon some criteria such as a measure of risk. The default

values are 1.00 indicating no change from the standard values contained in the program. The values may range from 0 to 2.00. Zero would not be realistic as it would provide free money. A value of 1.15 would increase the interest rate by fifteen percent. A value of .80 would decrease the interest rate by twenty percent. These changes are in addition to any changes dictated by the firm's credit rating.

Changing Microeconomic Parameter Values

To change parameter values, click on Manage Worlds/Review and Change Parameters (Figure 8-6) and select the parameter you wish to change.

Figure 8-6

Price Elasticities

Two sets of price elasticity parameters control the demand function for each area in the simulation model. The first set, called company elasticity, has no effect on total world demand but affects the impact of price changes on the fortunes of the individual companies within the world. This, in effect, changes brand loyalty by altering customer sensitivity to price changes among the existing customer base. For example, with a high company elasticity factor, a price decrease by only one company will attract a considerable volume of

sales at the expense of the other companies in the world. The same price decrease with a lower company elasticity factor would attract a considerably smaller volume of sales.

Inasmuch as each company has maintained the same price as its competitors in the standard historical data for Years 1 and 2, the company price elasticity factors have had little effect on the historical data. Thus, company elasticity factors may be changed prior to the first quarter of Year 3 without affecting future relationships with historical data. Click on Manage Worlds/Review and Change Parameters/Microeconomic Parameters. The dialog box shown in Figure 8-6 will appear.

Figure 8-6

Default parameters for "company" price elasticity are:

	Merica 1	Merica 2	Merica 2	4th Area
Companies within industry	2.0	2.0	2.0	1.5
Industry within economy	2.0	2.0	2.0	1.5

Price elasticity parameters can vary by market area and country. You can set different price elasticity factors in each domestic market area to have three different kinds of domestic markets.

The second set of parameters for industry elasticity affects the entire industry in its ability to use price changes to attract additional sales from other segments of the economy (or to lose sales if prices should increase). These parameters control the price elasticity of demand for the product in the world. A high industry price elasticity makes price more important in attracting additional sales to the industry. A low industry price elasticity decreases customer price sensitivity. The distribution of sales among the various companies within the industry is controlled by the company elasticity (the first elasticity parameter) and the marketing programs of each competitor. Successful marketing programs also attract additional sales to the entire world.

It is recommended that industry price elasticity (the second elasticity factor) be changed only if new historical data are generated from the beginning of Year 1. If it is to be changed during the course of play, it should be changed gradually, perhaps by no more than 0.05 per quarter, so as not to disrupt the planning by company teams.

Needless to say, changes in elasticities will affect the competitive situation among competing companies. A high industry elasticity factor will cause relatively large changes in total sales when the average price for the industry is changed, and a high elasticity factor for the companies will place a sales premium on price-setting activities of individual companies. High industry price elasticities will tend to put downward pressure on prices.

High company price elasticities will increase the likelihood of price wars during the competition.

Stock Price

You may modify the stock price that is reported in the simulation by adjusting the stock price parameter. This may be useful if you wish to reward companies for some specific actions or to simulate a price increase or decrease related to an industry you are simulating. The default entries are 100 for each company. That indicates that the reported price will be the price generated by the simulation. An entry of 110 would report a price ten percent higher and an entry of 90 would report a price of ten percent lower. The parameters stay at whatever values they are set too until changed by the administrator. Parameter values may range from 0 to 200.

Standard Labor and Materials Costs

Standard cost parameters include both labor and materials costs per unit. These costs apply to all firms within a world. There is one set of costs for each market area for each of the 12 possible products that firms may offer. The basic cost levels reported to participants in their Operating Information Reports are standard costs after adjustments. The program first subtracts any cost savings the team has realized through production worker training from the standard costs. Then the costs are adjusted by the program for the effects of inflation and the influence of cost multipliers (see below). Actual unit costs experienced by the participants' companies also are affected by other factors, some of them random. Lower production volume than expected, for example, will cause higher unit labor costs because the workers are hired by the hour rather than by piece rates.

Cost values may be changed in the parameter file prior to the beginning of the processing of any quarter of play, as long as no team has had a report (via their computer output) of the subsequent availability of the model number that is being changed. Changes in these parameters will change the relative cost of product models to all firms. Changing the relative level of the basic unit costs may affect the desirability of introducing new models into production and the incentive for continued research and development. It should be noted that a firm with an extremely strong product research and development program could possibly (but not likely) generate a total of 12 different models during the course of the simulation play. In general, the costs associated with each successive new model are higher (but greater sales volume is expected).

Note: Standard cost parameters specify the basic, unadjusted, unit costs of the 12 product models that may be developed through research and development. Costs, across the board or by firm, may easily be altered with the cost multiplier (see below).

Product Cost Multipliers

These are the parameters to use when changing cost levels for a world, for an individual firm or for production by an individual firm in an individual market area. The level of labor costs and materials costs can be adjusted either up or down for each firm by area. Changing a multiplier value to 1.2 prior to running a quarter of the simulation will increase costs by 20 percent for the company from what they would otherwise have been for that quarter. A later increase of 10 percent would require changing the value of 1.2 to 1.32 (1.2 times 1.1).

A wide variety of scenarios can be created and incorporated into the game environment via changes in the level of labor and/or material costs. For example, you may like to implement the results of labor negotiations. If a new contract calls for an increase in wage rates of 7 percent industry wide, change the labor cost multiplier to 1.07 for each company in each market area. If negotiations result in a strike, shut down all production lines for the appropriate number of weeks (from the Decisions menu—see Chapter 6, also look at the production effectiveness parameter discussed below if you wish to create a production slowdown). Note that labor costs will change according to changes in the Consumer Price Index **without** changing the cost values. If few of the companies in the simulation are doing well, one of the authors has been known to cut costs by changing values just to perk up interest (by decreasing materials costs by 10 percent, for example). Unprofitable companies in a simulation do not motivate students highly. Alternatively, if you would like to simulate a price increase by material suppliers, simply increase materials costs by X percent.

Standard Savings

There are 12 levels of savings possible during the course of the simulation. You may also remember that there are 12 product models available. **Please note: Models and savings levels are completely independent!** Once a savings level has been achieved, it applies to any product model that a firm produces. A well-developed production worker training program will result in increasingly higher savings levels being realized over time. Once achieved, a savings level is never lost. Standard unit savings will be subtracted from standard unit costs when company production costs are calculated. These costs also are adjusted for inflation and the cost multiplier.

Savings values may be changed in the parameter file prior to the beginning of the processing of any quarter of play, as long as no team has had a report (via their computer output) of the subsequent availability of the model number with the savings level that is being changed. As savings levels are raised, the desirability of production training expenditures will increase. Changing the relative level of the basic unit costs and savings levels may affect the desirability of introducing new models into production and the

incentive for continued research and development and production worker training expenditures.

Marketing Parameters

To change marketing parameter values, click on Manage Worlds/Review and Change Parameters/Marketing Parameters and select the parameters you want to change.

Advertising Effectiveness

The advertising effectiveness adjustment may be made for any company in any area. The default values are set at 100 to represent 100 percent effective. These parameters are most likely to be used when teams create an advertising program or specific ads that the administrator wants to factor into the simulation. A high-quality ad or program can be rewarded by increasing the effectiveness above 100 and a lower quality effort can be recognized by setting the effectiveness level below 100. The new effectiveness level stays in force until changed by the game administrator. Parameter values may range from 0 to 200.

Market Segment Demand

Market segment demand may be adjusted up or down by segment by area. The default values are 100 representing one hundred percent of normal demand. A value of 110 would increase demand in the segment by ten percent while a value of 80 would decrease demand in the segment by twenty percent. Parameter values may range from 0 to 200. The demand adjustment will remain in effect until it is altered. Thus if a value is changed to 110, demand will remain at 110 percent of normal demand until the value is changed to a different level. Changing it back to 100 would restore demand to its normal level.

Market Segment Migration

The market segments in *The Business Policy Game* are dynamic in that the proportion of the total demand occupying each segment shifts over time. The rate and direction of this shift is controlled by the market segment migration parameters. Minus numbers move demand out of a segment and plus numbers move demand into a segment. Market segment demand is set to be equal for each segment in a market area at the end of Year 2, Quarter 4. Demand changes should be gradual with a shift in any one segment not exceeding five percent in any quarter. The default values are set for a slow shift in demand in each area with the pattern of the shift differing in each area. Keep the sum of the shifts in each market area equal to zero. That is, the minus and plus numbers in each market area should sum to zero. If a shift in an area segment is set large enough to result in a negative number in a segment, the shift is not effected and all shifts for the market area are set to zero. A message

warning of this change will be issued in the market demand section of the administrator's reports.

Customer Orders

These parameters will alter the number of customer orders placed during a quarter. The default values of 100 yield a normal volume of customer orders given the marketing effort applied by the firm. The parameters may be altered for each company in each area. You might consider these parameters as a complement to the production effectiveness parameters. A change in the customer order parameters simulates a change in the environment that would impact the firm's customers but not its production capability. For example, a hurricane could hit part of the country and not impact the firm's production capability. But it would certainly impact the orders customers in the devastated area would place with the firm. Customer orders could be reduced say to 80 indicating eighty percent of normal. Or they could be increased to 110 indicating a ten percent increase in demand to replace damaged products. Alternatively, demand could be decreased during the quarter of the catastrophe and increased the following quarter as new products are required to replace those damaged. As with most other parameter changes, changes made by the administrator remain in effect until changed by the administrator. Parameter values may range from 0 to 200.

Operations Parameters

Change operations parameter values by clicking on Manage Worlds/Review and Change Parameters/Operations Parameters and selecting the parameters you want to change.

Production Effectiveness

The production effectiveness can be altered for each team in each area. The default values of 100 percent in each area results in production output close to normal capacity each quarter. An increase to 110 would increase the output ten percent and a decrease to 90 would decrease output by ten percent. If the administrator desires to introduce some type of shock such as a rolling blackout, the parameters could be set to say 50 to simulate a loss of power fifty percent of the quarter. If a flood were to stop production for a full quarter, the parameter could be set to zero for that quarter. The parameter stays at whatever value it is set at until changed by the administrator. Thus if some type of calamity occurs for one quarter, do not forget to reset the parameters prior to the following quarter. Otherwise you will get two quarters of the calamity. Parameter values may range from 0 to 200.

R & D Effectiveness

R & D effectiveness can be modified in either a positive or a negative direction. The default parameter values are 1.00. Increasing the value will increase the rate of new product development and decreasing the value will decrease the rate of new product development.

Parameter values may be specified for each company. You are encouraged to make small changes as large changes will either significantly retard the development of new products or significantly speed up development to an unrealistic level. The parameter values may range from .50 to 2.00.

The most interesting use of this parameter would involve each team developing an R & D program that would be submitted to a judge (instructor, business professors, business practitioners, etc.). After the programs are judged, the teams could be rewarded or penalized in keeping with the quality of the program they submitted. The dollars spent on R & D would then reflect the quality of their program.

Print All Parameter Values (8 pages)

Clicking on Manage Worlds/Review and Change Parameters/Print All Parameter Values will provide you with a record of the default parameter values for *The Business Policy Game*. We recommend that you print the parameter values and store the hard copy in a safe place for reference. You may also want to print the values after you have made changes. This will give you a record of your current values and may be useful when you make changes in the future.

Creating New Historical Data

Users of the simulation are urged to bypass this section until after they have used the simulation at least once with the parameters and economic data that have been supplied with the programs. After the simulation has been used one or more times, the administrator may wish to modify the parameters for use in future classes. This section will provide information regarding such modification. **Please note that modification is not necessary to operate the simulation, nor is it necessarily even desirable**. The differences in competitive strategy among the teams in worlds insure that no two worlds are ever alike. Thus, the successful strategy depends upon the competition as well as on the environment.

If you change economic data or the parameters shown below, you **must** generate new historical data for the eight quarters of Years 1 and 2. Otherwise, you run a high risk of discontinuities between the historical data and simulation play data that will confuse the teams. The new historical data will be used by participants to analyze the earlier performance of their simulated companies.

Interest rates and the economic data set that you select may be altered after initializing history files but before running the simulation for Year 1, Quarter 1. This will enable all of the changes to be incorporated in the historical data and will facilitate planning by the teams as they begin to try to understand their simulated environment. Such changes are made from the Setup Menu by choosing Review/Change.

Note: We do not recommend making changes to the economic data set you select. The economic data series is actual data disguised. Thus, the relationships among the economic data are real!

To generate new historical data, you must initialize the simulation so that the first program run is for Year 1, Quarter 1. During the initialization of the world, when the program requests that you select either standard economic data or new economic data, select Use New Economic Data to Initialize for Year 1, Quarter 1. (This is the switch that determines whether the first game run begins with Year 1, Quarter 1 or Year 2, Quarter 4.)

Decision Sets

Preparing new decision sets for historical data and changing those decision variables that affect product demand may significantly change the volume of sales and production requirements for Years 1 and 2. See Chapter 6 for a description of the option to make such changes from the Decisions menu.

APPENDIX A—104 QUARTERS OF ECONOMIC DATA

Qtr	Merica GDP	Merica CPI	Merica Real GDP	Nystok GDP	Nystok CPI	Nystok Real GDP	Nystok Exch Rate	Pandau GDP	Pandau CPI	Pandau Real GDP	Pandau Exch Rate	Sereno GDP	Sereno CPI	Sereno Real GDP	Sereno Exch Rate
1	100.0	100.0	100.0	100.0	100.0	100.0	4.0	100.0	100.0	100.0	262.0	100.0	100.0	100.0	12.5
2	99.7	100.2	99.5	102.1	100.9	101.2	4.0	107.8	103.5	104.2	271.0	103.1	102.1	101.0	12.5
3	99.7	100.8	98.9	103.5	101.7	101.7	4.0	115.4	105.8	109.1	271.0	106.3	101.9	104.3	12.5
4	99.2	100.8	98.4	105.5	102.8	102.7	4.0	122.4	104.1	117.6	271.0	109.6	103.2	106.2	12.5
5	102.2	100.8	101.4	108.5	104.1	104.2	4.0	131.7	108.9	120.9	271.0	112.9	104.5	108.0	12.5
6	104.1	101.5	102.6	110.1	105.1	104.8	4.0	138.9	115.2	120.6	270.0	116.2	105.5	110.2	12.5
7	107.4	101.4	105.9	110.6	105.0	105.4	4.0	147.7	117.3	125.8	270.0	119.7	106.8	112.1	12.5
8	107.9	101.8	106.0	109.0	105.8	103.1	4.0	158.0	121.9	129.6	270.0	122.9	107.6	114.2	12.5
9	109.3	102.1	107.1	109.4	106.6	102.6	4.0	168.4	122.3	137.7	268.0	126.2	107.9	117.0	12.5
10	110.0	102.8	107.0	109.6	106.8	102.6	4.0	171.2	126.9	134.9	268.0	129.7	108.9	119.1	12.5
11	111.6	102.6	108.8	110.4	106.7	103.4	4.0	182.6	129.4	141.1	268.0	133.3	109.8	121.4	12.5
12	113.2	102.9	110.0	113.0	106.8	105.8	4.0	189.6	134.4	141.1	274.0	136.4	110.5	123.5	12.5
13	114.8	103.4	111.0	116.1	108.3	107.1	4.0	199.2	139.2	143.0	274.0	140.1	110.9	126.4	12.5
14	116.6	103.8	112.3	117.7	108.4	108.5	4.0	210.0	141.0	148.9	274.0	144.0	111.2	129.4	12.5
15	118.8	104.3	113.9	121.7	108.2	112.5	4.0	223.8	142.1	157.5	279.0	147.9	112.2	131.9	12.5
16	120.6	104.4	115.5	128.7	108.9	118.2	4.0	240.9	148.0	162.8	281.0	151.5	113.1	134.0	12.5
17	122.5	104.7	117.0	127.9	110.0	116.3	4.0	259.7	151.7	171.2	283.0	155.3	114.4	135.7	12.5
18	124.4	105.1	118.4	132.6	110.6	119.9	4.0	281.2	154.7	181.8	285.0	159.2	114.7	138.8	12.5
19	125.7	105.5	119.1	137.8	110.4	124.8	4.0	301.6	156.7	192.5	289.0	163.2	115.8	141.0	12.5
20	130.2	105.6	123.3	142.1	110.9	128.1	3.7	316.0	164.9	191.6	304.0	166.7	118.7	140.4	12.5
21	132.4	106.8	124.0	144.9	113.1	128.1	3.7	329.8	171.5	192.3	306.0	171.6	120.5	142.4	12.5
22	135.0	106.9	126.3	152.2	114.1	133.4	3.6	340.5	175.3	194.3	310.0	176.6	121.0	145.9	12.5
23	138.1	107.7	128.2	155.5	114.4	136.0	3.6	364.3	177.4	205.4	313.0	181.7	122.4	148.5	12.5
24	142.8	108.6	131.5	159.6	115.4	138.3	3.6	395.0	185.6	212.9	316.0	186.2	124.4	149.7	12.5
25	145.0	109.5	132.4	164.8	118.2	139.4	3.6	414.2	196.0	211.3	322.0	189.9	127.2	149.3	12.5
26	147.6	110.6	133.5	167.6	120.0	139.7	3.5	439.7	195.0	225.6	370.0	193.8	128.3	151.0	12.5
27	150.4	111.2	135.3	171.7	120.7	142.2	3.3	454.3	200.6	226.5	370.0	197.7	129.7	152.4	12.5
28	151.7	111.5	136.1	173.2	122.0	142.0	3.3	468.7	203.4	230.4	373.0	201.2	131.0	153.5	12.5
29	153.5	112.5	136.4	182.4	124.6	146.4	3.2	487.0	214.9	226.6	387.0	207.8	133.0	156.2	12.5
30	156.7	113.5	138.1	181.3	125.9	144.0	3.2	534.6	222.2	240.6	400.0	214.7	134.8	159.3	12.5
31	159.9	114.7	139.4	185.1	127.5	145.1	3.2	558.0	227.2	245.7	399.0	221.8	136.3	162.7	12.5
32	164.6	115.9	142.0	191.3	129.6	147.6	3.2	601.0	224.4	267.8	399.0	227.8	138.1	164.9	12.5
33	168.9	117.2	144.1	203.5	132.5	153.5	2.8	609.5	224.8	271.1	399.0	240.0	142.3	168.7	12.5

Qtr	Merica GDP	Merica CPI	Merica Real GDP	Nystok GDP	Nystok CPI	Nystok Real GDP	Nystok Exch Rate	Pandau GDP	Pandau CPI	Pandau Real GDP	Pandau Exch Rate	Sereno GDP	Sereno CPI	Sereno Real GDP	Sereno Exch Rate
34	172.5	118.5	145.6	206.0	135.0	152.5	2.4	661.6	225.5	293.4	399.0	252.8	146.6	172.5	12.5
35	175.7	120.0	146.4	208.4	136.3	152.9	2.4	741.3	229.4	323.1	398.0	266.3	153.3	173.7	12.5
36	179.9	121.8	147.7	213.9	139.1	153.8	2.7	789.3	236.0	334.5	398.0	275.5	163.6	168.4	12.5
37	183.1	123.7	148.0	241.0	142.3	169.4	2.5	894.9	263.7	339.4	398.9	297.1	173.8	170.9	12.5
38	186.7	125.4	148.9	240.5	144.6	166.3	2.6	932.5	281.0	331.8	399.0	320.4	179.2	178.8	12.5
39	188.6	127.3	148.2	239.9	146.0	164.4	2.7	989.1	291.5	339.3	399.0	345.5	186.9	184.8	12.5
40	190.0	129.1	147.2	234.4	148.0	158.4	2.4	1097.4	299.7	366.1	484.0	361.8	198.7	182.1	12.5
41	192.3	130.4	147.5	230.4	150.8	152.8	2.3	1161.8	321.9	360.9	484.0	381.3	205.7	185.4	12.5
42	195.1	132.5	147.2	230.3	153.6	149.9	2.4	1292.6	349.5	369.8	484.0	401.8	211.7	189.8	12.5
43	196.0	134.3	145.9	233.2	154.8	150.6	2.7	1337.2	372.4	359.0	484.0	423.4	219.6	192.8	12.5
44	202.2	135.1	149.7	238.2	156.1	152.5	2.6	1472.2	389.6	377.8	484.0	439.5	226.4	194.1	12.5
45	205.9	137.0	150.3	243.3	158.8	153.2	2.5	1586.1	397.4	399.1	484.0	482.1	236.5	203.9	12.5
46	208.5	138.0	151.1	245.6	161.2	152.4	2.6	1801.2	410.7	438.5	484.0	528.8	242.8	217.8	12.5
47	212.5	138.8	153.1	246.3	161.3	152.7	2.4	1880.5	423.0	444.5	484.0	580.0	248.3	233.6	15.1
48	219.6	139.8	157.1	249.8	162.1	154.1	2.4	1975.6	423.7	466.2	484.0	609.7	274.9	221.8	21.7
49	225.5	140.9	160.0	249.8	165.2	151.3	2.4	2055.6	439.2	468.1	484.0	662.8	302.6	219.0	22.0
50	230.5	142.3	162.0	250.3	167.4	149.6	2.3	2187.3	450.2	485.9	484.0	720.6	316.0	228.0	22.8
51	236.6	143.5	164.9	251.7	167.9	150.0	2.3	2391.3	465.6	513.6	484.0	783.4	329.6	237.7	22.8
52	245.9	146.3	168.1	254.5	168.1	151.4	2.1	2629.8	469.5	560.1	484.0	822.3	342.4	240.2	22.6
53	251.9	149.3	168.7	254.9	169.1	150.7	2.0	2796.3	494.5	565.5	484.0	876.5	358.8	244.3	22.7
54	258.2	152.8	169.0	260.2	170.8	152.3	2.1	3064.3	509.2	601.7	484.0	934.3	371.3	251.6	22.8
55	265.0	156.1	169.8	262.8	171.3	153.4	1.9	3302.3	532.2	620.5	484.0	995.9	386.6	257.6	22.7
56	269.1	161.3	166.8	265.0	172.2	153.9	1.8	3544.2	546.9	648.0	484.0	1039.4	399.1	260.4	22.7
57	274.1	165.8	165.3	266.8	174.2	153.2	1.9	3707.9	570.1	650.3	484.0	1120.5	422.4	265.2	22.8
58	280.4	171.3	163.7	272.6	175.7	155.1	1.8	3978.6	612.4	649.6	484.0	1207.9	438.0	275.8	22.8
59	283.4	175.2	161.8	274.8	175.7	156.4	1.7	4203.3	629.6	667.6	484.0	1302.1	454.8	286.3	22.8
60	284.0	177.9	159.6	276.3	176.2	156.8	1.7	4343.1	652.2	665.9	484.0	1364.0	475.5	286.8	22.8
61	289.3	181.1	159.7	282.2	179.4	157.3	1.9	4670.2	717.8	650.6	586.1	1498.4	502.5	298.2	22.9
62	302.6	184.4	164.1	276.8	181.8	152.3	1.8	4865.1	773.0	629.4	603.0	1646.0	531.1	309.9	22.9
63	311.5	187.5	166.1	276.8	184.2	150.3	1.8	5143.9	810.7	634.5	625.0	1808.1	566.2	319.4	23.1
64	324.0	188.8	171.6	338.0	185.7	182.0	2.0	5384.1	870.9	618.2	659.9	1901.7	594.7	319.8	23.3
65	331.7	191.8	172.9	331.9	189.1	175.5	2.1	5732.8	905.7	633.0	672.8	2079.3	643.0	323.4	23.8
66	338.4	194.6	173.9	332.8	192.5	172.9	2.4	6095.0	946.9	643.7	685.1	2273.5	681.9	333.4	24.4

Qtr	Merica GDP	Merica CPI	Merica Real GDP	Nystok GDP	Nystok CPI	Nystok Real GDP	Nystok Exch Rate	Pandau GDP	Pandau CPI	Pandau Real GDP	Pandau Exch Rate	Sereno GDP	Sereno CPI	Sereno Real GDP	Sereno Exch Rate
67	345.5	196.5	175.8	331.9	194.0	171.1	2.3	6399.0	993.7	643.9	685.5	2485.8	718.1	346.1	25.2
68	358.6	200.9	178.5	332.6	195.5	170.1	2.3	6639.1	1000.1	663.9	700.5	2612.2	764.2	341.8	26.2
69	370.3	205.0	180.6	330.4	173.0	190.9	2.4	6675.1	1011.9	659.6	718.3	2988.1	853.6	350.0	45.5
70	379.4	207.4	182.9	333.4	175.6	189.9	2.5	7028.9	1028.6	683.3	740.8	3418.1	984.2	347.3	48.0
71	388.5	209.8	185.2	333.4	177.5	187.8	2.5	7245.8	1042.1	695.3	742.9	3910.0	1189.4	328.7	70.0
72	394.5	214.0	184.3	330.4	178.8	184.8	2.4	7579.1	1043.7	726.2	748.8	4115.8	1434.1	287.0	96.5
73	413.3	220.2	187.7	331.9	180.8	183.6	2.4	7934.1	1063.5	746.0	763.4	4993.3	1812.6	275.5	108.2
74	423.0	224.7	188.3	337.6	181.8	185.7	2.5	8236.4	1066.7	772.2	776.7	6057.9	2113.3	286.7	120.0
75	438.6	228.7	191.8	335.5	183.7	182.7	2.6	8548.6	1068.3	800.2	789.3	7349.5	2388.7	307.7	132.0
76	453.9	235.7	192.6	340.4	184.5	184.6	2.7	8880.5	1068.3	831.3	795.5	7624.9	2687.7	283.7	143.9
77	461.4	244.2	188.9	346.0	186.1	185.9	2.6	9151.1	1084.2	844.1	791.8	8914.2	3143.6	283.6	155.8
78	474.5	251.9	188.4	341.6	186.9	182.7	2.8	9474.2	1089.7	869.4	803.4	10421.6	3546.8	293.8	167.6
79	486.5	259.2	187.7	347.8	186.9	186.0	3.0	9858.7	1093.7	901.4	815.2	12183.9	3900.7	312.4	179.6
80	509.3	270.3	188.4	350.1	188.4	185.8	3.1	9916.0	1096.8	904.1	827.4	12784.0	4310.5	296.6	192.6
81	507.9	279.1	182.0	348.0	190.5	182.7	3.1	9939.2	1106.3	898.4	850.3	14655.5	5009.4	292.6	208.9
82	522.2	283.8	184.0	354.2	191.6	184.9	3.1	10437.9	1114.3	936.7	873.8	16801.1	5496.6	305.7	228.0
83	540.8	291.3	185.7	360.1	191.1	188.5	2.7	10952.4	1121.4	976.7	891.7	19260.8	6077.6	316.9	305.1
84	567.3	298.9	189.8	357.7	191.7	186.5	2.5	11238.1	1129.4	995.1	890.2	20272.1	6922.4	292.8	371.7
85	574.7	305.9	187.9	353.9	191.7	184.6	2.3	11566.5	1138.9	1015.6	885.2	24646.9	8349.4	295.2	473.6
86	590.3	314.9	187.5	366.0	191.3	191.3	2.2	12116.8	1142.0	1061.0	886.6	29965.7	9729.2	308.0	575.4
87	594.7	317.4	187.4	368.5	190.3	193.7	2.0	12763.9	1148.4	1111.5	877.0	36432.2	11637.8	313.1	752.0
88	593.3	319.2	185.9	433.7	189.6	228.7	1.9	13201.4	1146.0	1152.0	861.4	37774.0	14060.0	268.7	923.5
89	602.2	327.6	183.8	423.0	190.5	222.0	1.8	13240.9	1153.6	1147.8	846.9	54685.4	32557.8	168.0	1126.0
90	612.1	328.6	186.3	427.5	191.1	223.7	1.8	14171.3	1178.2	1202.8	808.9	79168.0	40645.3	194.8	1353.7
91	615.8	329.8	186.7	434.0	191.1	227.1	1.8	14688.9	1193.9	1230.3	805.8	114611.6	50757.4	225.8	1570.8
92	628.1	331.3	189.6	437.1	191.1	228.8	1.6	15642.7	1208.4	1294.5	792.3	165909.6	65039.0	255.1	2209.7
93	647.9	332.6	194.8	439.4	192.2	228.6	1.7	16539.0	1239.7	1334.2	746.2	201298.1	90330.2	222.8	2281.0
94	665.7	336.1	198.1	440.8	193.4	227.9	1.8	16668.9	1263.2	1319.6	728.3	244235.0	100683.0	242.6	2281.0
95	679.4	340.2	199.7	446.8	193.6	230.8	1.9	17567.0	1278.8	1373.7	719.0	296330.3	105246.6	281.6	2281.0
96	703.6	346.4	203.1	451.1	194.3	232.1	1.8	18369.7	1290.0	1424.0	684.1	359593.7	108486.0	331.5	2281.0
97	721.6	350.3	206.0	455.6	197.0	231.3	1.9	18368.9	1309.0	1403.2	671.9	379407.3	114614.5	331.0	2369.0
98	731.9	354.6	206.4	461.1	198.8	231.9	2.0	18840.6	1334.7	1411.6	667.2	400312.7	119243.7	335.7	2460.0
99	744.4	356.1	209.0	461.0	198.8	231.8	1.9	19420.3	1351.5	1437.0	670.0	422369.9	123128.7	343.0	2551.0

Qtr	Merica GDP	Merica CPI	Merica Real GDP	Nystok GDP	Nystok CPI	Nystok Real GDP	Nystok Exch Rate	Pandau GDP	Pandau CPI	Pandau Real GDP	Pandau Exch Rate	Sereno GDP	Sereno CPI	Sereno Real GDP	Sereno Exch Rate
100	754.5	357.8	210.9	466.6	200.0	233.3	1.7	21009.9	1367.1	1536.8	679.6	445603.2	128753.9	346.1	2641.0
101	763.0	359.4	212.3	473.6	202.3	234.1	1.7	21925.8	1395.1	1571.6	702.1	477820.4	141536.2	337.6	2733.0
102	775.4	363.4	213.4	476.7	203.5	234.3	1.7	22745.5	1453.2	1565.2	716.0	512366.9	149240.6	343.3	2817.8
103	803.8	365.8	219.7	486.0	204.2	238.0	1.6	24192.1	1481.2	1633.3	712.9	549411.1	157568.9	348.7	2890.6
104	815.0	367.5	221.8	490.0	206.1	237.7	1.5	25153.1	1493.5	1684.2	716.4	589148.3	166860.1	353.1	2945.4

APPENDIX B--HELP!

Troubleshooting

This appendix contains information that may solve a problem you are having. If you do not find it here. If you still have questions, please contact the author. (See the end of this appendix).

The simulation seemed to have paused

There are times when the run may take up to a minute. Please be patient and wait for it to finish.

I can't log on using the Player's Program

Check the password using the Administrator's Program. Click on Manage Worlds/Manage Passwords and select the World number. If you initialized the World a second time the passwords would have changed. They change each time a World is initialized.

I would like to use a World I have previously used in a competition

A. Delete the old world by checking the box to the left of the old world and click on the Delete all selected worlds button that appears. Then initialize the world and you are ready to go.

Technical Support

If you need technical assistance with *The Business Policy Game*, Seventh Edition, please contact:

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13109 Sunridge Way E.	E-mail:	support@BPGSim.com
Puyallup, WA 98374-4845		(email is best as I check that often)

OR

Simon Rodan	Telephone:	209-591-8131
1257 Sanguinetti Rd.	E-mail:	support@BPGSim.com
Sonora, CA 95370		(email is best as I check that often)