

AGS COMPUTERS, INC.  
DATA PROCESSING MANAGEMENT GAME

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## INTRODUCTION

Welcome to the AGS Data Processing Management Game. We hope that you will enjoy yourself and that you will use this opportunity to learn more about AGS and the Software, Professional Services industry.

We have put together this brief management game to give you a flavor of some of the problems, options and potentials which exist within today's software professional services environment. This game is played over one or two simulated years, with each decision period representing two months. It is played by one person who assumes the role of a company MIS director.

You will receive points for accomplishing each of the following objectives:

- \* getting requested work completed on time
- \* working within an agreed upon contract budget

You will lose points whenever you:

- \* have unused personnel during a period
- \* hire or train people
- \* request additional headcount or contract dollars
- \* defer a project

The person completing at least 6 periods (1 year) of simulation with the highest point score will receive suitable recognition for their achievement.

On the following pages is information that will help you play the AGS DP Management Game more effectively.

If you need help during the game, please ask any of the AGS people who are here.

## GAME DESCRIPTION

Large businesses have successfully blended the use of their own in-house data processing staffs with outside contract professional services personnel in designing, building and maintaining data processing applications. While our intuition might say that these companies should hire the people they need and, therefore, use professional services less and less, this has not been the case in the past. Successful data processing users continue to increase their use of contract professional services.

The purpose of this game is to give you a better insight as to the kind of decisions that the director of management information services or data processing faces in responding to requests from the various user departments, within the restraints of available manpower and budget dollars.

We trust that at the end of the game you will see more clearly why it makes good business sense, in both good times and in bad, to continue to use contract services to enhance in-house systems development because of timing requirements, specialized skills needed, or just short-term work volume where it doesn't pay to make permanent hires.

To play the game, we have set up a hypothetical user company of which you are the director of management information systems. Your firm is in the financial services industry and is headquartered in New York City. Although started as a classical brokerage operation, it is now faced with a changing environment and is offering a broad range of business and personal financial planning and management services.

Within each of the simulated periods, you will be presented with one or more projects. On each project, you have the option of accepting it or deferring it. If you want to accept a project, you have the option of doing the work in-house or going to an outside vendor for services. If you have insufficient resources (either head count or contract dollars) you then have the option of requesting additional funds or head count, but it is not certain that your request will be approved. You may train people if you have the time to do so.

## PLAYING PROCEDURES

- 1) Read AGS DP Management Game handout, Playing Procedures and Scoring Rules.
- 2) Identify the location of the following keys:  
ENTER  
BACK SPACE  
SHIFT and PRINT SCREEN
- 3) Press ENTER to start the game.
- 4) Type in your name when asked (up to 10 letters) and press ENTER.
- 5) Your options are displayed at the bottom of each screen. Press the letter or number you wish and then press ENTER.
- 6) After each period you will receive information on project status including those completed during that period (and how many points you earned) and a complete report on points gained or lost for unused head count, hiring, etc..
- 7) At the end of each year you will also be told how many points you received for unused contract dollars.
- 8) You can end the game (press E and ENTER) only on certain screens, but unless you have played at least 6 periods you are not eligible for the prize.
- 9) For each project, you can either schedule the project in-house or contract for using outside services or defer it to the next period:  
  
If you select in-house and you have insufficient head count, you can try to hire or to train personnel or use outside professionals (within available dollars).  
  
If you try to hire you must have enough time to hire and then you may or may not get approval.  
  
If you train, you must have the personnel available to be trained and enough time to train them.
- 10) Correcting Errors: If you wish to correct an entry BEFORE you press the ENTER key, use the Back space (<-) key to re-position the cursor over the incorrect entry and re-type the correct entry.

If you have selected an invalid option and already pressed the ENTER key, type the new entry over the old and press the ENTER key.

If you want to hire, train, use outside professionals or request additional contract dollars and need to modify a previous entry, press the ENTER key through the remaining fields. The program will then give you the opportunity to modify any of the above entries.



## HOW TO PLAY THE GAME

You will initially be presented with a resource availability report showing the head count that you have in various categories and the dollars you can spend on contract professional services.

The game will begin with your resources partially depleted because of projects already in process.

The game is designed to be played over a one to two-year time span with there being one new project introduced for each two-month period. As these projects are presented, you will be given a chance to decide whether to perform the work in-house or whether to have the work done by a contract firm. If you do the work in-house, you will be given a choice (if there are not sufficient resources available) to ask to hire more people, to train some of your existing people, or use outside professionals to meet the skills shortages. If you choose to do the work on a contract basis, then you will be presented with three bids. You can select one of these bids based upon the price offered and your perceived likelihood that the project will get done on time within the bid price.

Clearly, some of the projects have been designed in such a way to show the value of effectively using outside vendors. You may want to look for the key reasons to use outside vendors such as special skills required, critical on-time delivery, relative cost and time to train people, short-term use of specific skills, etc.

However, on the other side, some of the projects have been selected to show when and why it makes good sense to do work in-house and, therefore, why users don't have all their work done by contract people. Look for projects where there has been substantial in-house experience or where they are of a maintenance nature or where they provide effective work for available people over a reasonable period of time.

On-time delivery is the primary way to earn high points. Therefore, in general, deferring projects is somewhat risky unless you have a short-term shortage of certain skills which you can improve over the next few periods.

## SCORING

For each project that you complete on time, you will be awarded from 100 to 1,000 points. If a project is completed 1 or 2 periods late, you will get fewer points and fewer yet if it is completed 3 to 4 periods late. After that, the number of points you receive will be minimal. These scores will be shown to you on each project description screen.

You will start with 1,000 points, but may lose points for various decisions that you make including the cost of hiring people, training people, requesting an increase in head count or contract dollars (whether or not they are granted) and deferring a project (because of loss of user goodwill and/or loss of profits).

You will also receive points for any unused contract dollars at the end of the year. However, you will be penalized for any unused head count during each two-month time period.

### SCORING RULES

### POINTS

Start of Game	+1000
Completion of a Project (based on project value and actual delivery versus required delivery; proportional value for partially completed projects at end of game.)	up to +1000 each
Deferral of a Project	-25 each time
Request to Hire (whether granted or not)	-50 each time
Hiring (per table on screen) (it takes 1-2 periods to hire)	-9 to -15 per person
Training (per table on screen) (it takes 1-2 periods to train)	-15 to -50 per person
Request for Contract Bids (only if none accepted)	-50 each time
Request for Contract \$ (whether granted or not)	-50 each time
Unused Headcount (at end of each period)	-12 to -20 per person (only -1 to -3 for initial one to two people per category)
Unused Contract, \$ (or negative \$) (at end of each year)	+/- .5 per \$1000

## BIDDER DESCRIPTIONS

We have identified five professional services companies that will bid for the projects. The user company has been using various professional services firms in the past, although they have tended to give a significant part of their contract work to just a few companies, often to take advantage of application specialties or knowledge of particular hardware or software systems.

1. Professional Services, Inc. - This is a well-experienced, large professional services firm with operations in a number of cities and broad experience in managing projects as well as systems analysis, data base and communications skills and a substantial number of general programmers. PSI has done work for the user in the past and the results have generally been quite satisfactory both in terms of delivery and actual versus estimated cost.
2. Eastern Programming - This is a medium sized local firm which has had a good record doing work for the client before in specific application areas. They are, however, relatively short on data base skills and only have a few experienced project managers who may be occupied on other projects. They have essentially been a body shop and provided people for specific tasks in conjunction with the client's own people. They tend to be selective on what they bid for; their prices are similar to those of Professional Services, Inc.
3. Freelance Programmers - They are essentially a brokerage service which brings in people on a freelance basis to carry out the work for the client. Prices tend to be somewhat lower, but they provide no project management and are "erratic" in specialty areas such as data base and data communications.
4. Software for Finance - This is a firm which focuses on producing software products for the financial community including back office brokerage accounting, order entry systems and portfolio analysis and reporting. Their programs are highly regarded. The professional services area is really an adjunct to their software products business and is used to promote their involvement with leading firms in the financial community. Their professional services work tends to be related to their software product areas, is usually higher priced than other firms, but the quality is good and they meet their delivery promises.
5. Western Services - A professional services firm with headquarters and principal locations in California. They are coming in with low priced bids in order to get an initial entry into the New York business community. They have a good reputation in the other areas but have never done any work before for the user company and will have to staff a project with new employees if they get it.