Dakota Worldwide


# User's Guide


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# About This Manual

This manual provides you with the information you need to install and use LOCUS™ Pro.

## What You Should Know

The objective of this training manual is to provide you with the basic knowledge needed to use LOCUS™ Pro. It is not intended to provide instruction on the modeling and balancing processes in general, or to make any recommendation on various balancing methods.

This manual is intended for experienced market analysts. You should be familiar with the following:

- How to collect field and supplemental data.
- Your IBM or compatible personal computer, keyboard and printer.
- How to install the LOCUS™ Pro program on your PC (See *Chapter 1* for installation instructions).
- How to export GIS Mapping data so it is compatible with LOCUS™ Pro's import function.

If you need information on market analysis procedures, collecting data or GIS Mapping compatibility, contact Dakota Worldwide.

## How this Manual is Organized

LOCUS™ Pro Release 1.0 consists of two interrelated modules: **Balance** and **Tactics**. This manual is divided into chapters that either introduce or support these two modules.

LOCUS™ Pro **Balance** provides information on how to create accurate, or balanced, computer models of a specified trade area. **LOCUS™ Pro Balance** is covered in Chapters 5 through 7.

LOCUS™ Pro **Tactics** allows you to test What If scenarios to help you build tactics to perform your market strategy. LOCUS™ Pro **Tactics** is covered in Chapters 8 and 9.

# Chapter Overview

**Chapter 1** presents the hardware and software you must have to install LOCUS™ Pro and shows you how to install it.

**Chapter 2** provides information on compiling your market research data and explains the role of LOCUS™ Pro in the research process.

**Chapter 3** explains basic operations such as starting and quitting sessions. It also introduces the main folder menu, the user-friendly spreadsheet format and pull-down menus.

**Chapter 4** presents information on how to define system parameters, create a model shell with various sizes and default value parameters, and define groups of information.

**Chapter 5** provides information on how to create a preliminary model, including how to add facilities, sectors and barriers. Also discussed are procedures for displaying paths, checking your data and making corrections.

**Chapter 6** explains how to balance the model you have created and discusses LOCUS™ Pro tools, such as reports and visual displays.

**Chapter 7** presents information on how to enter customer spotting or correlation into your model.

**Chapter 8** provides information on how to test What If scenarios to help you build tactics to perform your market strategy. This chapter also discusses some of the tools available for reviewing your changes, such as drawing paths, curves and the various reports you can list.

**Chapter 9** explains how to use advanced modeling techniques (such as image, curve and radius overrides) for running tactics.

**This manual also contains a glossary of terms.**

# Table of Contents

# Table of Figures

# Chapter 1
# Installing LOCUS™ Pro

Before you begin the installation process, review the equipment and software outlined below to make sure that you have the proper hardware and software for your computer system.

Once you are sure your system is ready to have LOCUS™ Pro installed, follow the procedure outlined in ***Installation Steps.***

## A. Important Information

When you opened the package containing this program, you agreed to all provisions and conditions as stated in the software license agreement. Under this agreement, you are allowed to install one copy of LOCUS™ Pro per machine, and you may only run (or use) one copy of the program at any time. Please refer to your LOCUS™ Pro license agreement for information regarding your rights and responsibilities.

## B. Equipment Requirements

- An IBM or compatible personal computer using a Pentium 166 system or greater.
- Windows 95/98 or Windows NT operating system.
- A 3.5" diskette drive and CD-ROM or DVD drive.
- Hard disk with a minimum of 5 MB (megabytes) free disk space.
- A minimum of 16 MB RAM (32 MB or greater is recommended).
- A VGA color monitor and a video adapter that supports a minimum resolution of 640 x 480 with 256 colors.

## C. Installation Steps

Once you have verified the necessary hardware and software on your system, you are ready to install LOCUS™ Pro. To install the program:

1. Start Windows if you have not already done so.
2. Place the LOCUS™ Pro CD into your CD-ROM drive ("***X***," below)
3. Select **Start** menu, then **Run**.
4. Type ***X:\SETUP.EXE*** and select **OK**, or press the **Enter** key to begin installation. Follow the on-screen prompts to finish installing.

   **NOTE:** During installation, you will be prompted for a destination directory for LOCUS™ Pro files. The default is **C:\Program Files\Locus Pro**.

5. Once installation is complete, store your LOCUS™ Pro CD-ROM in a safe place. You may need it if a problem occurs or if you wish to obtain future versions of the program.
6. The first time you run LOCUS™ Pro, you will encounter the LOCUS™ Pro **System Authorization** screen. You will need to telephone, fax or e-mail the authorization code to your Dakota Worldwide representative.

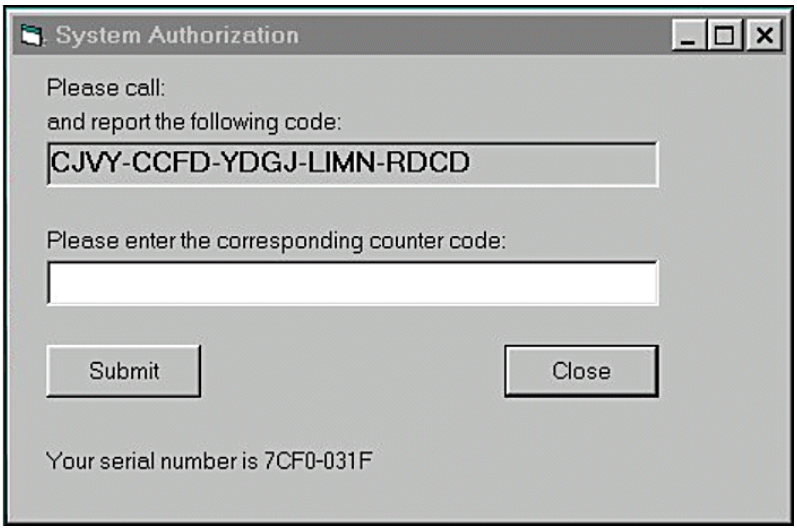



**Figure 1-1: LOCUS™ Pro System Authorization Window.**

7. Your representative will send a Counter Code to you by phone, fax or e-mail. Please note that the Counter Code must be entered in CAPS and dashes. It is a good idea to keep this Counter Code in a safe place in case you need to re-install LOCUS™ Pro on your computer.

# D. Customer Support

For technical support, please contact us at:

Dakota Worldwide Corporation
4801 West 81st Street, Suite 105
Minneapolis, Minnesota USA 55437

Phone: (800) 475-4505 or
(952) 835-4505
Fax: (952) 835-4461
E-mail: dakotaww@goldengate.net
Internet: www.dakotaww.com

# Chapter 2
# Getting Started

LOCUS™ Pro is designed to help you be more effective and productive in your market analysis. You can use LOCUS™ Pro to create an accurate simulation of a specified trade area, run various tactical scenarios to create a market strategy, and review the financial impacts of various retailing site options.

## A. The Market Analysis Process

Before you start using these programs, you need to understand their role within the overall market analysis process. The process consists of the following steps:

1. *Clearly define the purpose and identify objectives* for the market analysis. This is the basis for decisions during the remainder of the process.
2. *Gather accurate data* about the trade area from census reports, maps, driving the area, visiting and ranking stores, and so on.
3. *Collect the information gathered in a quantifiable fashion*, so that you can easily analyze the current situation as well as any changes.
4. *Enter the information* gathered into a LOCUS™ Pro database so you can retrieve and analyze market data.
5. *Create a balanced model* of the trade area using the information gathered.
6. *Create tactics*, based on the balanced model, to analyze and define an effective market strategy.

## B. LOCUS™ Pro Concepts

There are four basic steps in using LOCUS™ Pro:

1. Manually enter or import data into LOCUS™ Pro to build an accurate database and create a model.
2. Examine the model you have built and make any necessary adjustments so that it accurately represents the marketplace.
3. Print reports and graphics so you have a visual representation of your trade area.
4. Test various tactics to develop a market strategy, using the balanced model you have built.

   **NOTE:** This program is not a substitute for a thorough market analysis. LOCUS™ Pro bases its model on information you have entered. If you enter incorrect data into the program, you will get inaccurate results.

# C. Definitions of Key Terms

There are five terms you need to become familiar with before you begin working in the LOCUS™ Pro program. These terms are:

**Curve**

Curve is the measurement of a facility's pulling power, or its ability to capture market share over distance. The curve for a facility can range from 1 to 99. Raising a facility's curve decreases its pulling power; lowering its curve increases its pulling power. For example, if a facility has a curve of 75 and you lower it to 60, you increase its pulling power; the facility will attract more sales from a greater distance.

**Draw**

Draw is the percent of a facility's total business that is derived from the defined trade area. The remainder of the facility's business comes from outside the trade area.

**Radius**

The radius controls the length of the curve, influencing the facility's pulling power over distance. Decreasing the radius shortens the curve; increasing it lengthens the curve. LOCUS™ Pro uses a default radius of 2.

**Float**

When the total volume from the defined trade area for all facilities is subtracted from the total expenditure potential of this trade area, the remaining potential is called float. Float is the expenditure amount within the trade area that is not spent at the facilities defined for the model.

**Image**

Image is a ranking that describes the relative acceptance of a facility as calculated by LOCUS™ Pro. The higher a facility's image, the more acceptance that facility has in its own trade area.

# D. Setting Up Your Database

When you enter data obtained from your field study of the trade area into LOCUS™ Pro, you will create a database. A database is a collection of records organized for rapid search and retrieval by a computer.

Conceptually, data that you enter into a LOCUS™ Pro database can be placed into three categories:

**Factual**

Data that is verifiable and is required for a complete model. Factual parameters are:

- Facility location (latitude and longitude, or x and y coordinates)
- Facility size (total area or sales area)
- Sector location
- Sector population
- Barriers

**Subjective**
Information that reflects your opinion of the factors affecting the market. This information must fall within a predefined range. It is subject to change, usually when you are balancing the model or running tactics. Subjective data are required for a complete model. Subjective parameters are:

- Curve
- Image
- Radius
- PCE (Per Capita Expenditure)

**Reference**
Optional information that does not affect the model, but may be helpful for record keeping. Some reference examples are:

- Project number
- Analyst name
- Comments
- Study location
- Client name
- Facility address
- Facility type
- Parking
- Checkouts
- Operation
- Exterior Conditions
- Interior Conditions
- Meat
- Produce
- Deli
- Bakery
- Rx (Pharmacy)
- Hours
- Adjacent Retail 1
- Adjacent Retail 2

# Chapter 3
# Basic LOCUS™ Pro Operations

This chapter presents procedures you need to know to operate LOCUS™ Pro. It discusses how to start the LOCUS™ Pro program and presents the Main Folder Menu. It also explains command words and keyboard movement options.

## A. Starting LOCUS™ Pro

To start the LOCUS™ Pro program, turn on your computer. Then:

1. Select **Start** menu/**Programs**, then the LOCUS™ Pro icon
   *or*
2. From Windows Explorer, go to the **C:\Program Files\Locus Pro** directory, and double-click on the file **locusPro.exe.**

The LOCUS™ Pro Main Folder Menu appears.

### 1. LOCUS™ Pro Main Folder Menu

The Main Folder Menu will display 16 folders, which allow you to enter and adjust all pertinent data.

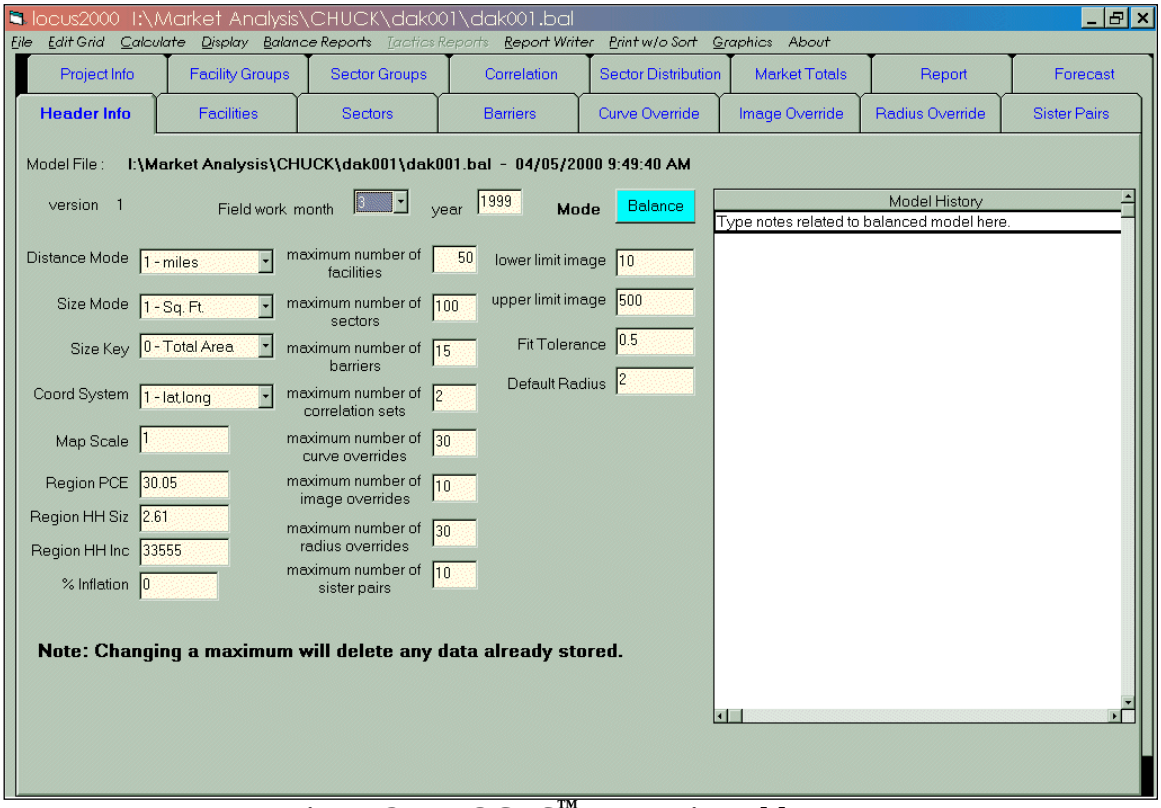



**Figure 3-1: LOCUS™ Pro Main Folder Menu.**

**2. Main Menu Folders**

These 16 folders break down LOCUS™ Pro into easy-to-use spreadsheets, as follows:

- Header Info
- Project Info
- Facilities
- Facility Groups
- Sectors
- Sector Groups
- Correlation
- Barriers
- Sector Distribution
- Curve Override
- Market Totals
- Image Override
- Report
- Radius Override
- Forecast
- Sister Pairs

**3. Pull-Down Menus**

In addition, there are nine pull-down menus:

- File
- Edit Grid
- Calculate
- Display
- Balance Reports
- Tactics Reports
- Report Writer
- Print w/o Sort
- Graphics

# B. Creating a New Model

**Step 1: Create New Model.**

To create a new model, click on **File** and highlight **Create New Model**. The New Model Parameters Box appears.

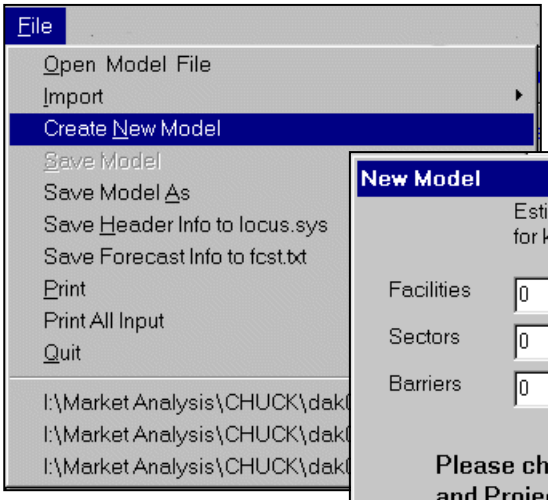



**Figure 3-2: Create New Model Menu.**

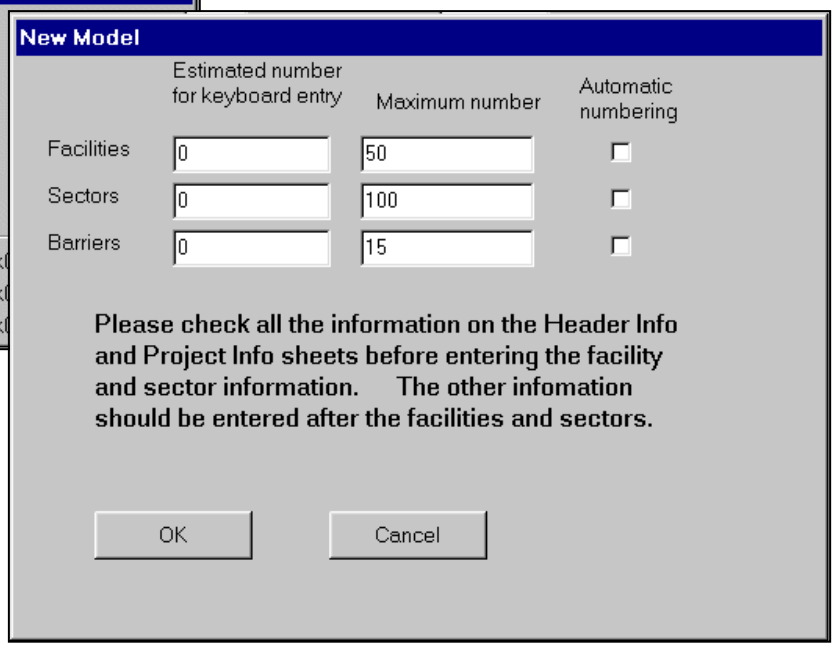



**Figure 3-3: New Model Parameters Box.**

Enter in the number of *Facilities*, *Sectors* and *Barriers* to be used. Allow for the number of sites and market changes you plan to add in **Tactics** mode. Note the *Maximum number* is set at a standard default number. If you need to have more facilities, sectors or barriers than the default total, change the maximum to the required number needed. Be sure the number is less than the maximum allowed on the **Header Info** folder.

### Step 2: Header Info

Fill in the **Header Info** folder, adjusting fields to correspond with your known data.

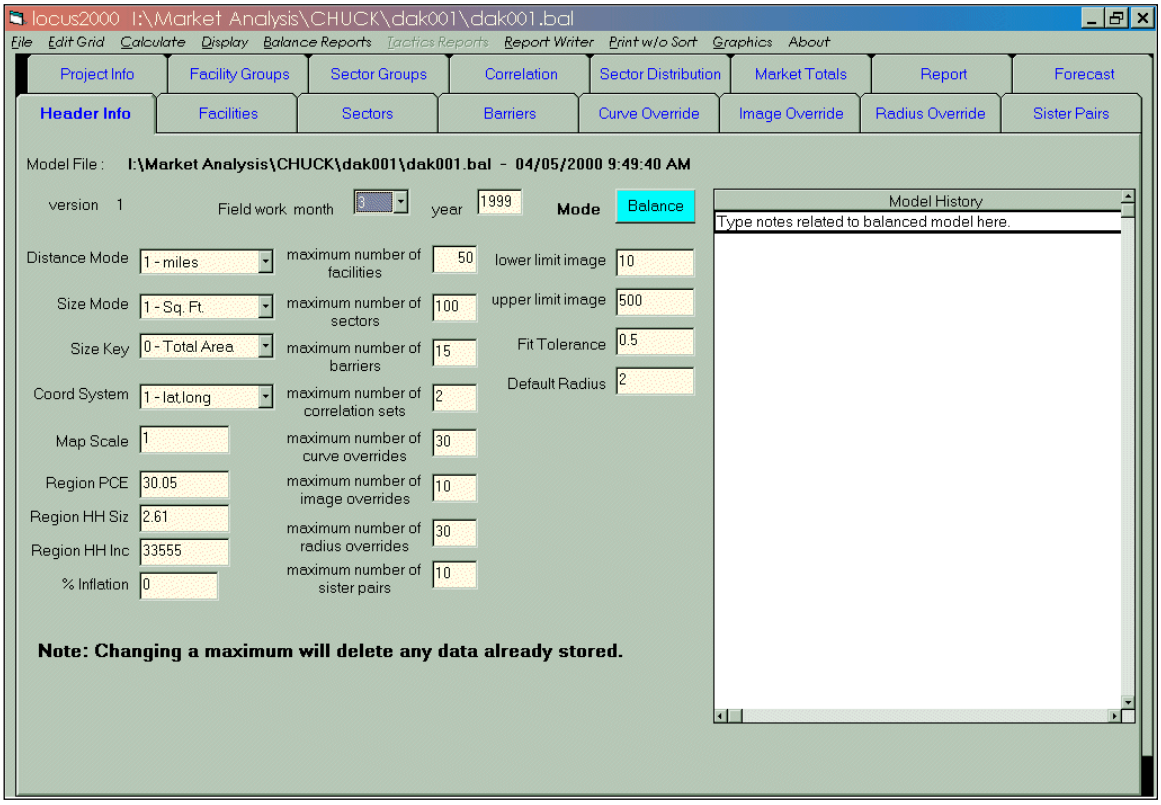



**Figure 3-4: Header Info Folder.**

| **Header Info Field** | **Sample Description** |
|---|---|
| ***Fieldwork Month*** | Correct month (*i.e.*, 1 = January, 12 = December) |
| ***Year*** | Current year (*i.e.*, if it is March 1999, enter 3 in month and 1999 in year) |
| ***Distance Mode*** | (0 = kilometers) --- (1 = miles) |
| ***Size Mode*** | (0 = Square Meters) --- (1 = Square Feet) |
| ***Size Key*** | (0 = Total Area) --- (1 = Sales Area) |
| ***Coord System*** | (0 = X,Y) --- (1 = Lat, Long) |
| ***Map Scale*** | (1 for Lat, Long), or number of miles to equate 1 inch |
| ***Region PCE*** | Per Capita Expenditure from your government and data files |

| **Header Info Field (cont.)** | **Sample Description (cont.)** |
|---|---|
| ***Region HH Size*** | Household Size from your government and data files |
| ***Region HH Income*** | Household Income from your government and data files |

The maximum numbers on the **Header Info** folder are virtually unlimited. However, to handle extremely large models, your computer will need to have the appropriate memory, speed and capability. It is recommended that you limit maximums to the following:

- Up to 500 facilities
- Up to 1,000 sectors
- Up to 50 barriers
- Up to 500 sector correlations per facility and 50 correlation sets
- Up to 1,000 curve overrides
- Up to 1,000 image overrides
- Up to 1,000 radius overrides
- Up to 10 sister pairs
- Up to 9 facility groups
- Up to 9 sector groups
- Up to 10 forecasts
- Up to 10 barrier crosspoints

**Maximums may be limited by your computer's capabilities and memory.** So, keep your maximum number of the above model limits to within a reasonable number of those used. This will reduce calculation times.

- Lower limit image 10
- Higher limit image 500
- Fit Tolerance .50
- Default Radius 2
- Inflation 0

**NOTE:** Changing a maximum will delete any data stored, so save your model first.

**Changing Header Info Defaults.**

To adjust the defaults of the Header Info Folder, click on the **File** pull down menu and select **Save Header Info to locus.sys**. The locus.sys file controls the defaults for all future models.

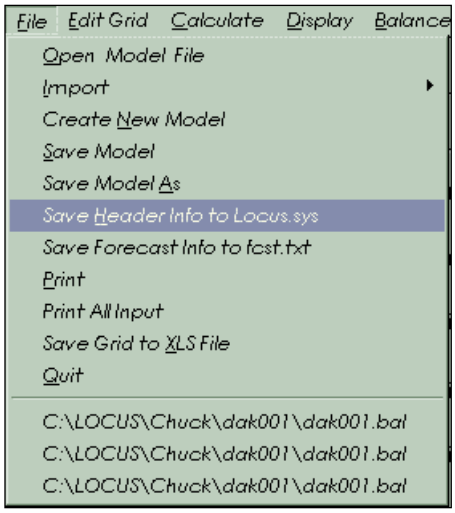



**Figure 3-5: Save Header Info to locus.sys**

### Step 3: Project Info

Click on the **Project Info** folder and add pertinent data.

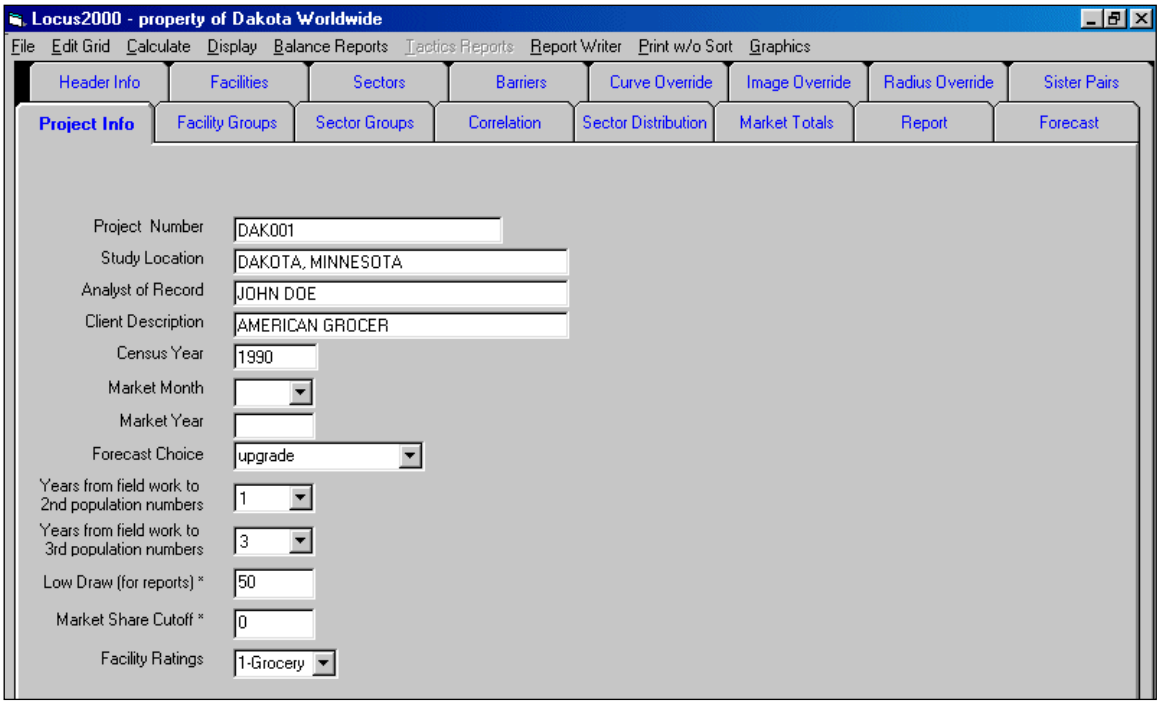



**Figure 3-6: Project Info Folder.**

| **Project Info Fields** | **Sample Description** |
|---|---|
| *Project Number* | DAK001 |
| *Study Location* | Dakota, Minnesota |
| *Analyst of Record* | John Doe |
| *Client Description* | American Grocer |
| *Census Year* | 1990, or Pro when applicable |
| ***Market Month*** | *Fill this in when you go to* **Tactics** *mode* |
| ***Market Year*** | *Fill this in when you go to* **Tactics** *mode* |
| *Forecast Choice* | New, Upgrade, Stable, or another you create |
| *Yrs from field work to 2nd pop numbers* | (normally 1) |
| *Yrs from field work to 3rd pop numbers* | (normally 3) |
| *Low Draw* | Enter desired draw (*i.e.*, 30) |
| *Market Share Cutoff* | 0 if you want all shares displayed |
| *Facility Ratings* | 1-Grocery --- 2-Other |

Once you have completed these entries, you may save the file using a numbering convention with up to 8 characters (for example, *a:\dak001.bal*).

**Step 4: Import Data.**

Use the following procedure to import *Sector*, *Trade Area*, *Facility* and *Barrier* data. If you are going to manually enter data, follow procedures in *Chapter 5*.

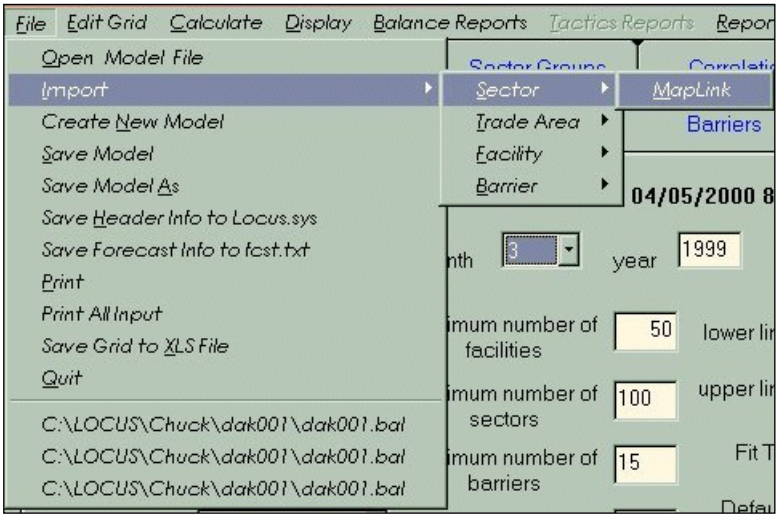



**Figure 3-7: Importing Data.**

**It is imperative to always import data in the following order!**

***Sector:*** **File, Import, Sector, MapLink**
Description: Imports sector Map Key, Lat-Long, Census Population, PCE
Sample: *a:\dak001_m.txt*, or whatever GIS has named the file (include entire pathname)

***Trade Area:*** **File, Import, Trade Area, MapLink**
Description: Imports sector Census tracts and demographic variables (*i.e.*, percent white, average income, etc.)
Sample: *a:\dak001_ta.txt*

***Facility:*** **File, Import, Facility, MapLink**
Description: Imports facility Lat-Long and other store data captured by GIS
Sample: *a:\dak001_f.txt*

***Barrier:*** **File, Import, Barrier, MapLink**
Description: Imports barrier Map Keys, Lat-Long and crosspoints
Sample: *a:\dak001_x.txt*

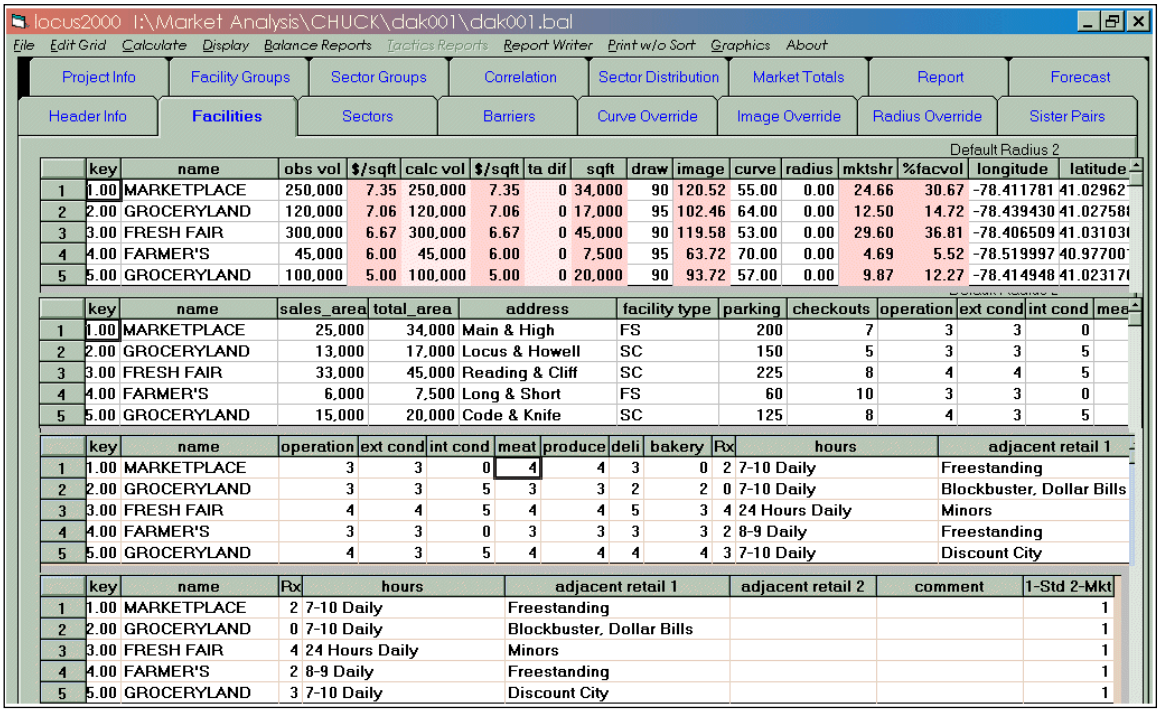
**Step 5:** Once you have imported your data, **Save** your new model (*i.e.*, *dak001.bal*).

# C. Adding or Adjusting Data

LOCUS™ Pro allows you to adjust the facility and sector data you have imported or manually entered. You may also add factual, subjective and reference information on facilities and sectors. The following pages show the various other menu folders.

### 1. Facilities Folder

The analyst may manually enter, remove or adjust all elements of a facility such as volume, size, curve, draw and radius. (**NOTE:** Pink columns are calculated data; the user cannot change them.)




| | key | name | obs vol | $/sqft | calc vol | $/sqft | ta dif | sqft | draw | image | curve | radius | mktshr | %facvol | longitude | latitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 250,000 | 7.35 | 250,000 | 7.35 | 0 | 34,000 | 90 | 120.52 | 55.00 | 0.00 | 24.66 | 30.67 | -78.411781 | 41.02962 |
| 2 | 2.00 | GROCERYLAND | 120,000 | 7.06 | 120,000 | 7.06 | 0 | 17,000 | 95 | 102.46 | 64.00 | 0.00 | 12.50 | 14.72 | -78.439430 | 41.02758 |
| 3 | 3.00 | FRESH FAIR | 300,000 | 6.67 | 300,000 | 6.67 | 0 | 45,000 | 90 | 119.58 | 53.00 | 0.00 | 29.60 | 36.81 | -78.406509 | 41.03103 |
| 4 | 4.00 | FARMER'S | 45,000 | 6.00 | 45,000 | 6.00 | 0 | 7,500 | 95 | 63.72 | 70.00 | 0.00 | 4.69 | 5.52 | -78.519997 | 40.97700 |
| 5 | 5.00 | GROCERYLAND | 100,000 | 5.00 | 100,000 | 5.00 | 0 | 20,000 | 90 | 93.72 | 57.00 | 0.00 | 9.87 | 12.27 | -78.414948 | 41.02317 |

| | key | name | sales_area | total_area | address | facility type | parking | checkouts | operation | ext cond | int cond | mea |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 25,000 | 34,000 | Main & High | FS | 200 | 7 | 3 | 3 | 0 | |
| 2 | 2.00 | GROCERYLAND | 13,000 | 17,000 | Locus & Howell | SC | 150 | 5 | 3 | 3 | 5 | |
| 3 | 3.00 | FRESH FAIR | 33,000 | 45,000 | Reading & Cliff | SC | 225 | 8 | 4 | 4 | 5 | |
| 4 | 4.00 | FARMER'S | 6,000 | 7,500 | Long & Short | FS | 60 | 10 | 3 | 3 | 0 | |
| 5 | 5.00 | GROCERYLAND | 15,000 | 20,000 | Code & Knife | SC | 125 | 8 | 4 | 3 | 5 | |

| | key | name | operation | ext cond | int cond | meat | produce | deli | bakery | Rx | hours | adjacent retail 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 3 | 3 | 0 | 4 | 4 | 3 | 0 | 2 | 7-10 Daily | Freestanding |
| 2 | 2.00 | GROCERYLAND | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 0 | 7-10 Daily | Blockbuster, Dollar Bills |
| 3 | 3.00 | FRESH FAIR | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 4 | 24 Hours Daily | Minors |
| 4 | 4.00 | FARMER'S | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 2 | 8-9 Daily | Freestanding |
| 5 | 5.00 | GROCERYLAND | 4 | 3 | 5 | 4 | 4 | 4 | 4 | 3 | 7-10 Daily | Discount City |

| | key | name | Rx | hours | adjacent retail 1 | adjacent retail 2 | comment | 1-Std 2-Mkt |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 2 | 7-10 Daily | Freestanding | | | 1 |
| 2 | 2.00 | GROCERYLAND | 0 | 7-10 Daily | Blockbuster, Dollar Bills | | | 1 |
| 3 | 3.00 | FRESH FAIR | 4 | 24 Hours Daily | Minors | | | 1 |
| 4 | 4.00 | FARMER'S | 2 | 8-9 Daily | Freestanding | | | 1 |
| 5 | 5.00 | GROCERYLAND | 3 | 7-10 Daily | Discount City | | | 1 |

**Figure 3-8: Facilities Folder.**

**NOTE:** If the space of a grid cell is not wide enough to accept a larger number, simply widen the column as you would in any spreadsheet. Then the larger number will be accepted.

## 2. Facility Groups Folder

The **Facility Groups** folder allows the analyst to designate chains and stores owned by a single entity as a group for analysis.

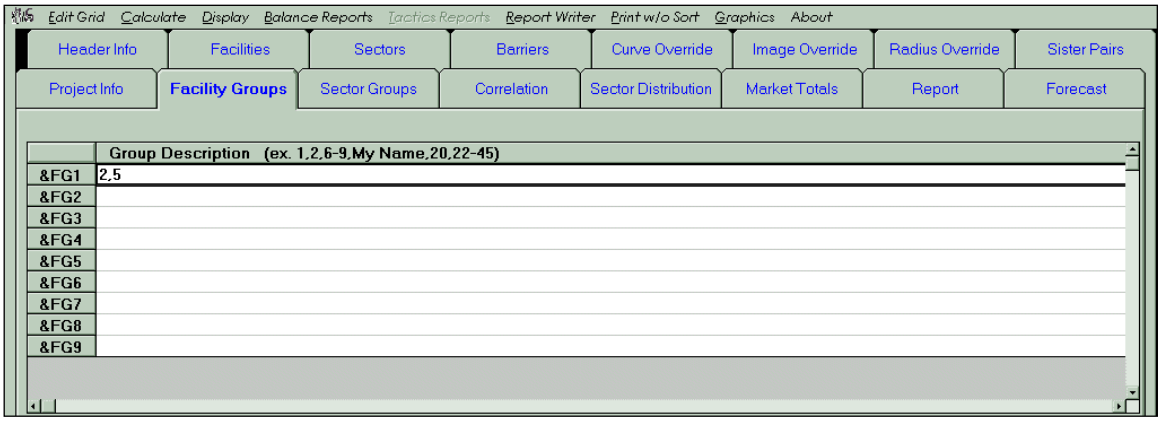



**Figure 3-9: Facility Groups Folder with Sample Data.**

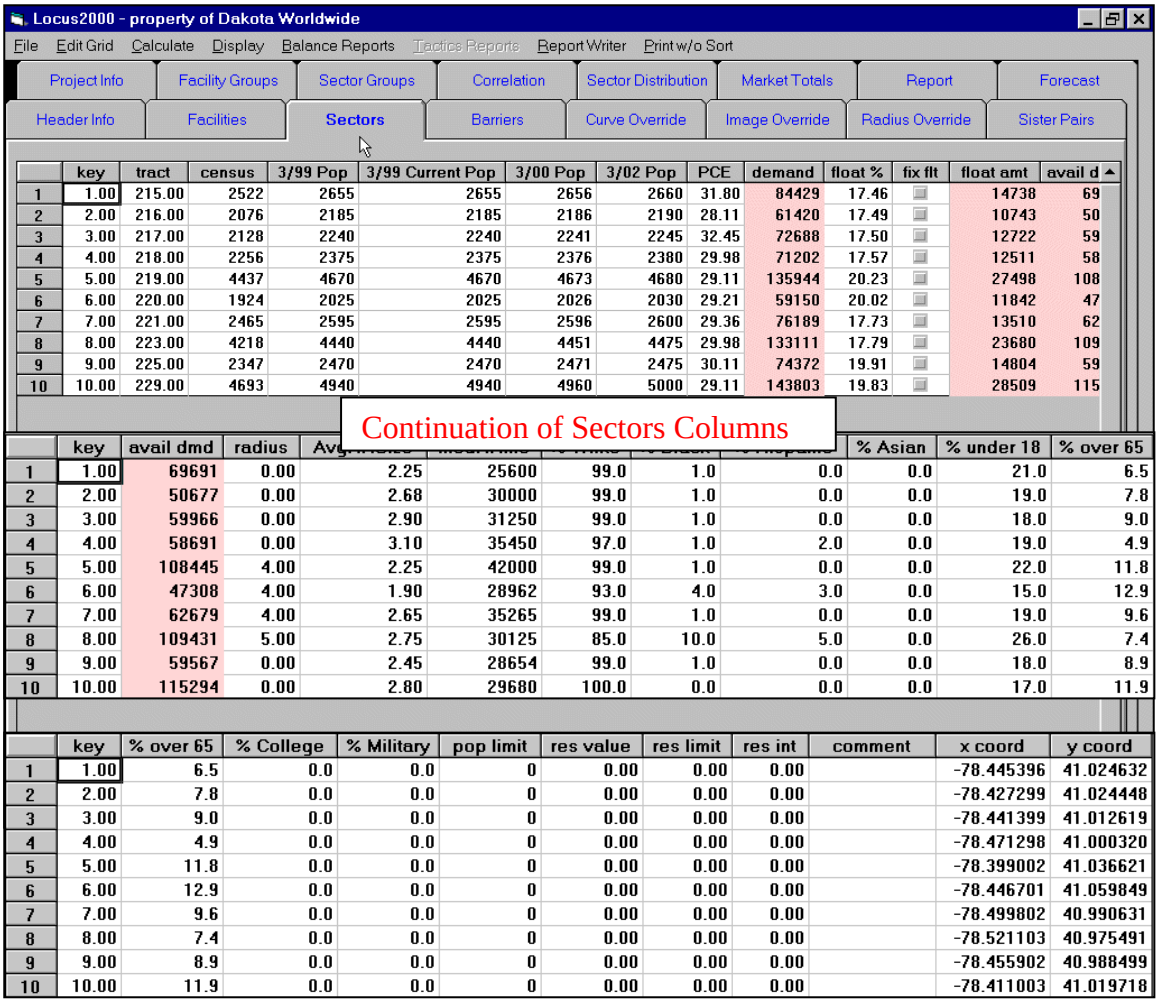
**NOTE**: You must use a comma (,) to separate each store (*i.e.*, 1,2,3-20,22).

### 3. Sectors Folder

The analyst may manually enter, remove or adjust all elements of a sector, such as population, PCE, float and demographic data. There are five population columns in this folder. The first is the census population and is not used for calculations; however, it is shown in the trade area description and can be used by the analyst as a basis for establishing the current and future populations.

The second population column, in this example, is labeled as **3/99 Pop** and represents the population of the sector at the time of the field work. LOCUS™ Pro uses this to calculate the balanced model. The third or **Current Pop** column is the same as the **3/99 Pop** in the balanced model, but becomes the market date population in tactics modeling.

The fourth population column, shown as **3/00 Pop** in this example, is the same as the 2nd Year population column in previous LOCUS™ versions, otherwise known as intermediate population. The fifth population column, shown as **3/02 Pop**, is the same as the 3rd Year column in previous versions of LOCUS™.




| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE | demand | float % | fix flt | float amt | avail d |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2522 | 2655 | 2655 | 2656 | 2660 | 31.80 | 84429 | 17.46 | | 14738 | 69 |
| 2 | 2.00 | 216.00 | 2076 | 2185 | 2185 | 2186 | 2190 | 28.11 | 61420 | 17.49 | | 10743 | 50 |
| 3 | 3.00 | 217.00 | 2128 | 2240 | 2240 | 2241 | 2245 | 32.45 | 72688 | 17.50 | | 12722 | 59 |
| 4 | 4.00 | 218.00 | 2256 | 2375 | 2375 | 2376 | 2380 | 29.98 | 71202 | 17.57 | | 12511 | 58 |
| 5 | 5.00 | 219.00 | 4437 | 4670 | 4670 | 4673 | 4680 | 29.11 | 135944 | 20.23 | | 27498 | 108 |
| 6 | 6.00 | 220.00 | 1924 | 2025 | 2025 | 2026 | 2030 | 29.21 | 59150 | 20.02 | | 11842 | 47 |
| 7 | 7.00 | 221.00 | 2465 | 2595 | 2595 | 2596 | 2600 | 29.36 | 76189 | 17.73 | | 13510 | 62 |
| 8 | 8.00 | 223.00 | 4218 | 4440 | 4440 | 4451 | 4475 | 29.98 | 133111 | 17.79 | | 23680 | 109 |
| 9 | 9.00 | 225.00 | 2347 | 2470 | 2470 | 2471 | 2475 | 30.11 | 74372 | 19.91 | | 14804 | 59 |
| 10 | 10.00 | 229.00 | 4693 | 4940 | 4940 | 4960 | 5000 | 29.11 | 143803 | 19.83 | | 28509 | 115 |

| | key | avail dmd | radius | Avg | | | | | | % Asian | % under 18 | % over 65 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 69691 | 0.00 | 2.25 | 25600 | 99.0 | 1.0 | 0.0 | | 0.0 | 21.0 | 6.5 |
| 2 | 2.00 | 50677 | 0.00 | 2.68 | 30000 | 99.0 | 1.0 | 0.0 | | 0.0 | 19.0 | 7.8 |
| 3 | 3.00 | 59966 | 0.00 | 2.90 | 31250 | 99.0 | 1.0 | 0.0 | | 0.0 | 18.0 | 9.0 |
| 4 | 4.00 | 58691 | 0.00 | 3.10 | 35450 | 97.0 | 1.0 | 2.0 | | 0.0 | 19.0 | 4.9 |
| 5 | 5.00 | 108445 | 4.00 | 2.25 | 42000 | 99.0 | 1.0 | 0.0 | | 0.0 | 22.0 | 11.8 |
| 6 | 6.00 | 47308 | 4.00 | 1.90 | 28962 | 93.0 | 4.0 | 3.0 | | 0.0 | 15.0 | 12.9 |
| 7 | 7.00 | 62679 | 4.00 | 2.65 | 35265 | 99.0 | 1.0 | 0.0 | | 0.0 | 19.0 | 9.6 |
| 8 | 8.00 | 109431 | 5.00 | 2.75 | 30125 | 85.0 | 10.0 | 5.0 | | 0.0 | 26.0 | 7.4 |
| 9 | 9.00 | 59567 | 0.00 | 2.45 | 28654 | 99.0 | 1.0 | 0.0 | | 0.0 | 18.0 | 8.9 |
| 10 | 10.00 | 115294 | 0.00 | 2.80 | 29680 | 100.0 | 0.0 | 0.0 | | 0.0 | 17.0 | 11.9 |

| | key | % over 65 | % College | % Military | pop limit | res value | res limit | res int | comment | x coord | y coord |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 6.5 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.445396 | 41.024632 |
| 2 | 2.00 | 7.8 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.427299 | 41.024448 |
| 3 | 3.00 | 9.0 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.441399 | 41.012619 |
| 4 | 4.00 | 4.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.471298 | 41.000320 |
| 5 | 5.00 | 11.8 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.399002 | 41.036621 |
| 6 | 6.00 | 12.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.446701 | 41.059849 |
| 7 | 7.00 | 9.6 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.499802 | 40.990631 |
| 8 | 8.00 | 7.4 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.521103 | 40.975491 |
| 9 | 9.00 | 8.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.455902 | 40.988499 |
| 10 | 10.00 | 11.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.411003 | 41.019718 |

**Figure 3-10: Sectors Folder with Sample Data.**

### 4. Sector Groups Folder

This will allow for the grouping of sectors to be used in advanced model techniques, such as district modeling, that will be offered in a future version of LOCUS™ Pro.

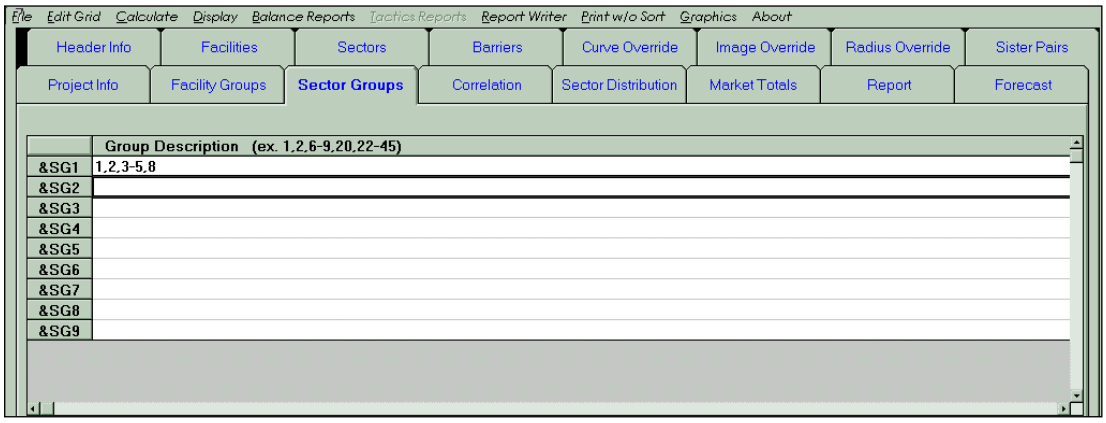



**Figure 3-11: Sector Groups Folder.**

**NOTE**: You must use a comma (,) to separate each store (*i.e.*, 1,2,3-14,20,21,24-50,55).

### 5. Correlation Folder

Analyst may manually enter and adjust customer origin data.

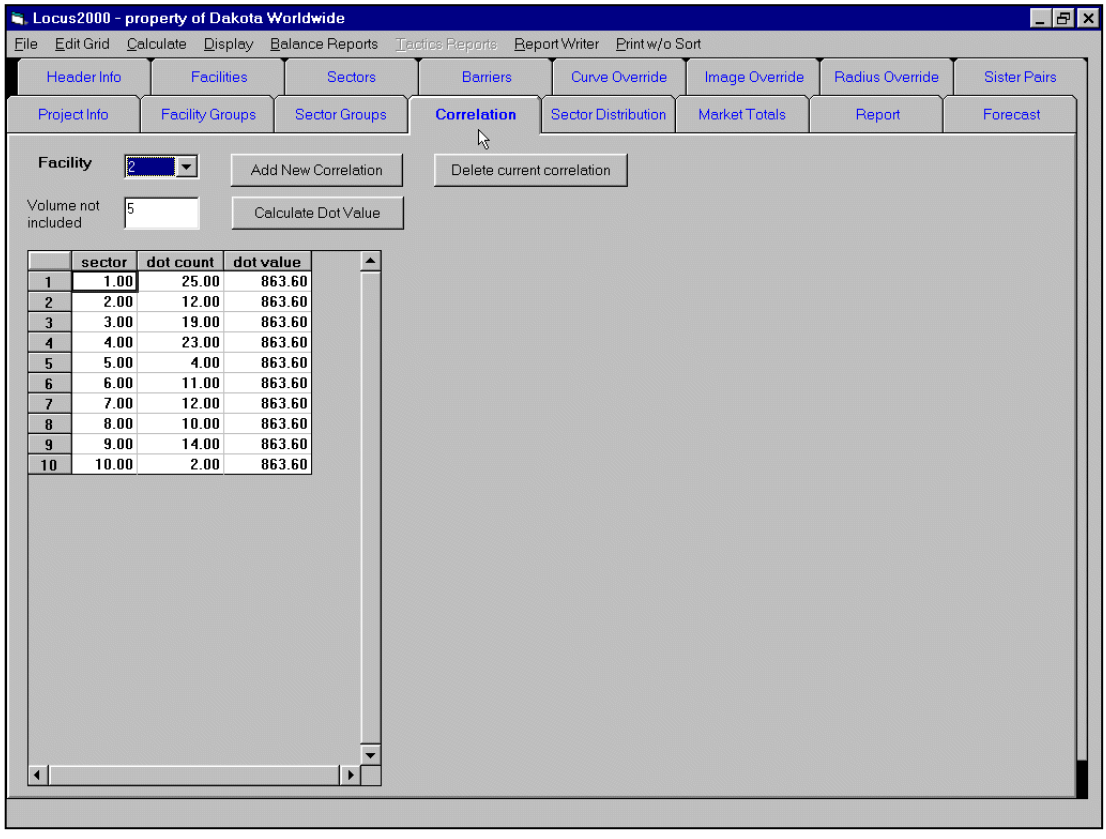



**Figure 3-12: Correlation Folder.**

## 6. Barriers Folder

Analyst may manually enter, remove or adjust barrier data. We recommend you add barriers in **Display**/**Path** pull down menu (Refer to *Chapter 5, Creating the Model*).

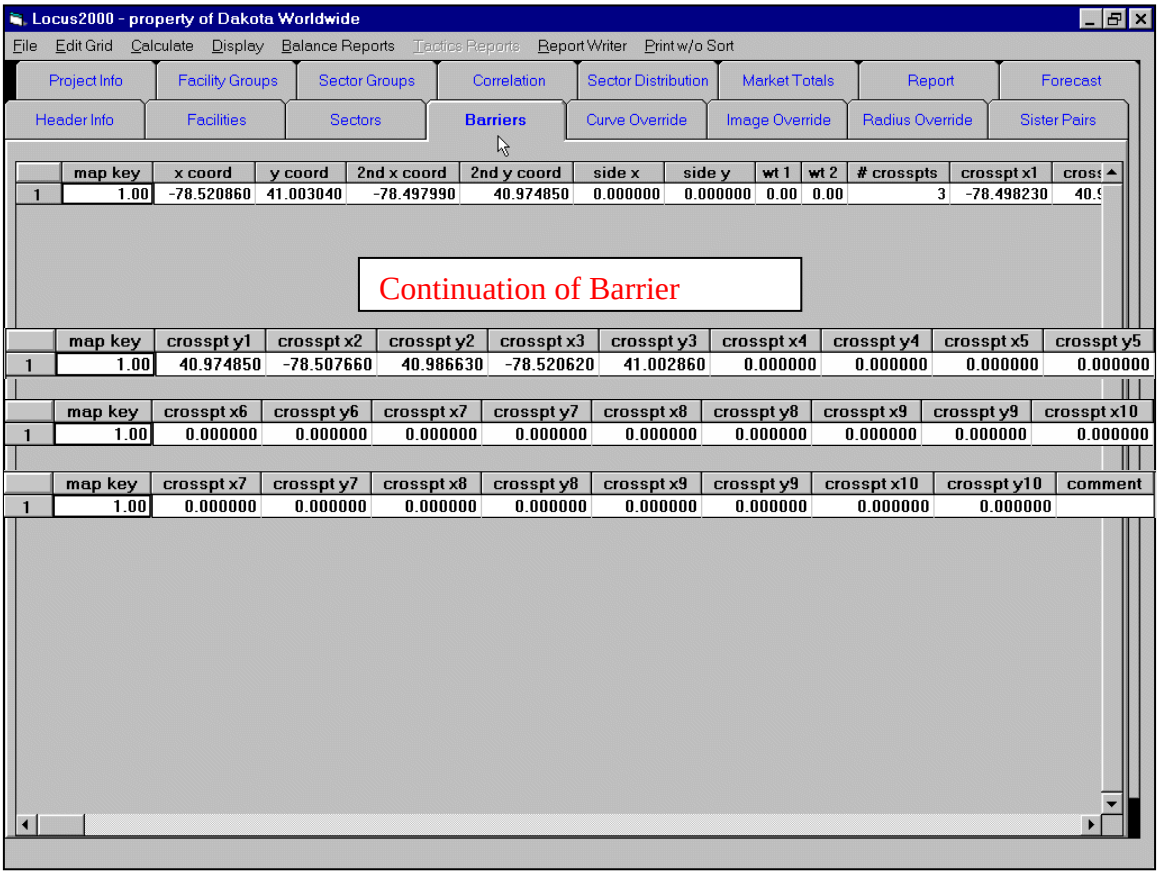
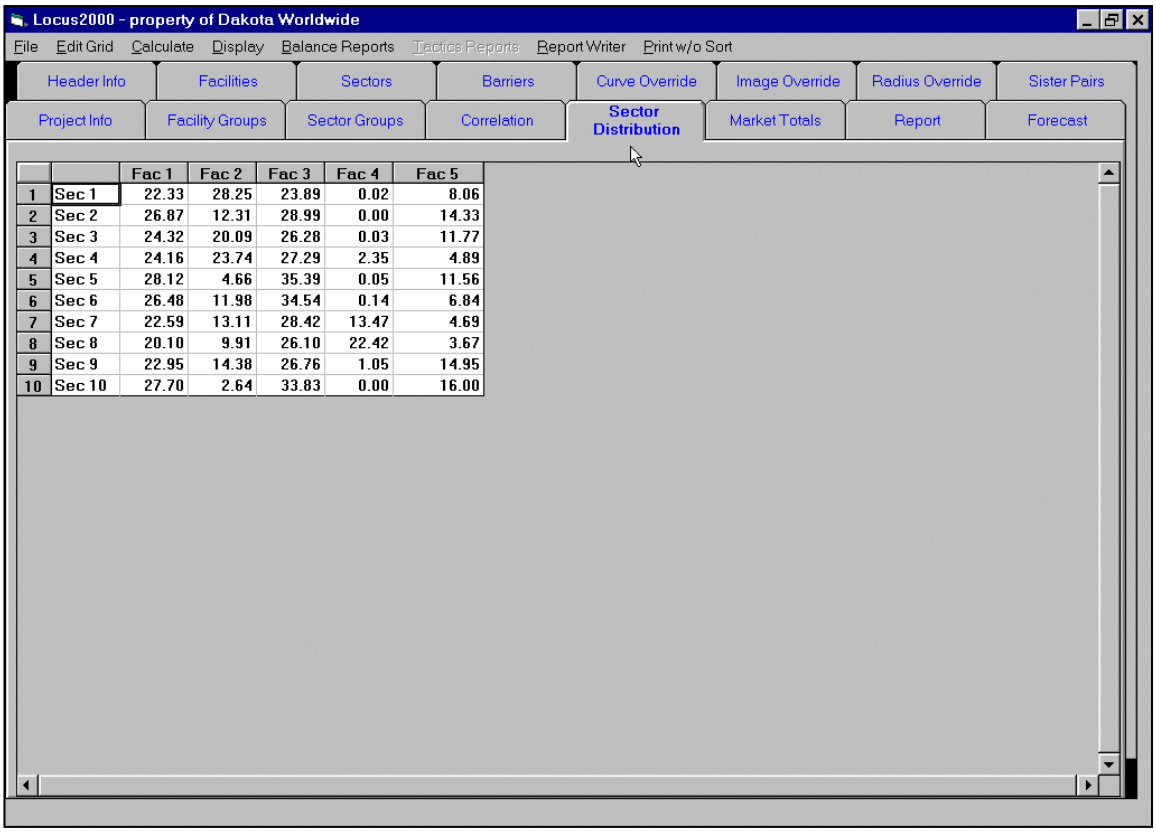



**Figure 3-13: Barriers Folder.**

## 7. Sector Distribution Folder

This is a display-only report that shows the facilities and their respective market shares by sector.




| | | Fac 1 | Fac 2 | Fac 3 | Fac 4 | Fac 5 |
|---|---|---|---|---|---|---|
| 1 | Sec 1 | 22.33 | 28.25 | 23.89 | 0.02 | 8.06 |
| 2 | Sec 2 | 26.87 | 12.31 | 28.99 | 0.00 | 14.33 |
| 3 | Sec 3 | 24.32 | 20.09 | 26.28 | 0.03 | 11.77 |
| 4 | Sec 4 | 24.16 | 23.74 | 27.29 | 2.35 | 4.89 |
| 5 | Sec 5 | 28.12 | 4.66 | 35.39 | 0.05 | 11.56 |
| 6 | Sec 6 | 26.48 | 11.98 | 34.54 | 0.14 | 6.84 |
| 7 | Sec 7 | 22.59 | 13.11 | 28.42 | 13.47 | 4.69 |
| 8 | Sec 8 | 20.10 | 9.91 | 26.10 | 22.42 | 3.67 |
| 9 | Sec 9 | 22.95 | 14.38 | 26.76 | 1.05 | 14.95 |
| 10 | Sec 10 | 27.70 | 2.64 | 33.83 | 0.00 | 16.00 |

**Figure 3-14: Sector Distribution Folder.**

## 8. Curve Override Folder

Analyst may manually enter, remove or adjust facility curve overrides.

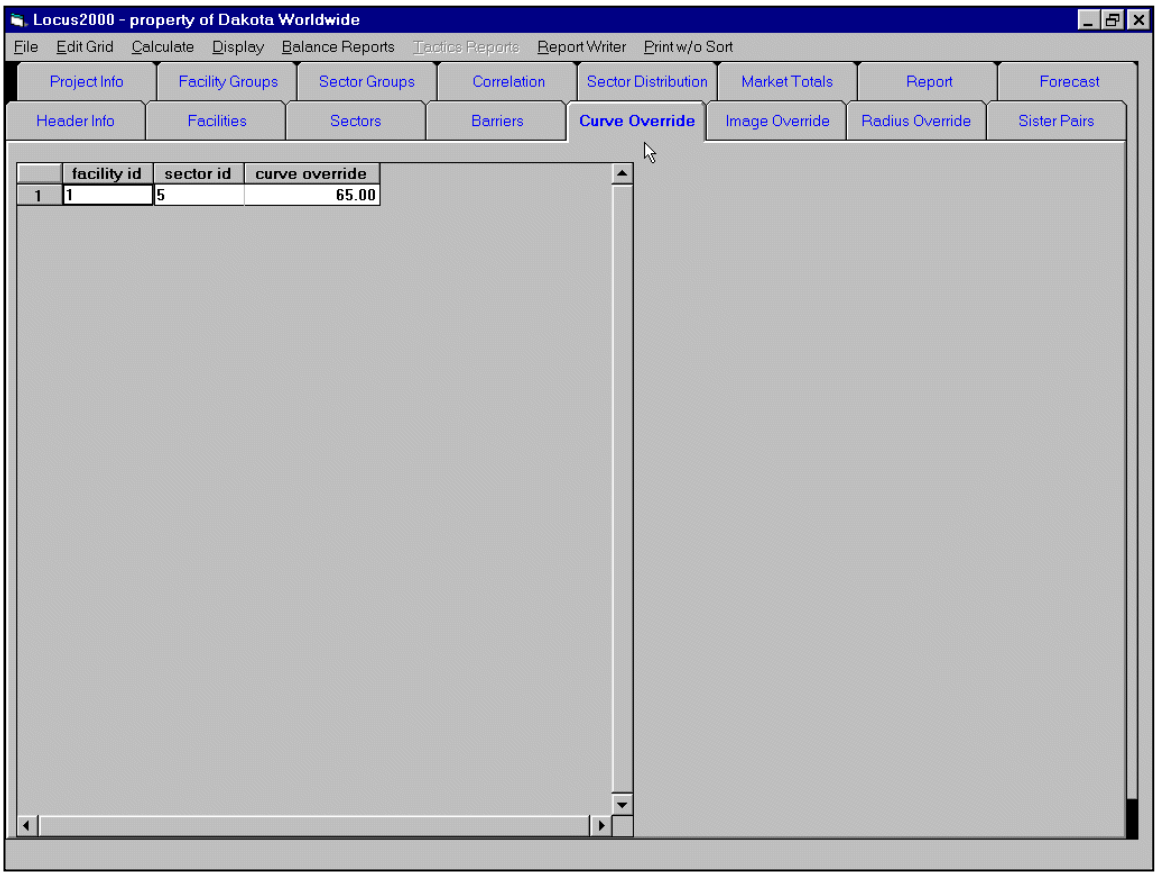



**Figure 3-15: Curve Override Folder.**

## 9. Market Totals Folder

This display-only report shows a summary of pertinent model information, including market population, potential, facility volume, number of facilities, number of sectors, census population, field date population, current population, 2nd and 3rd year populations, market float, explained float, percent float, average volume per square foot and facility totals.

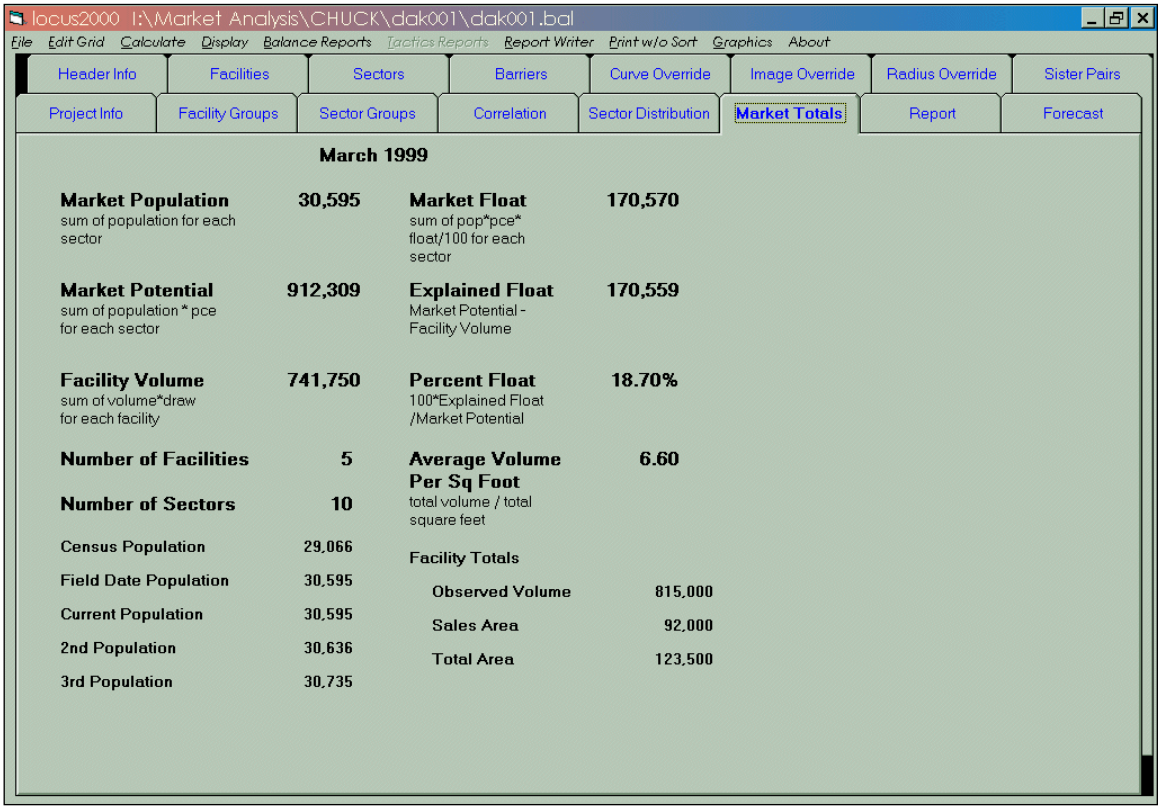



**Figure 3-16: Market Totals Folder with Sample Results.**

The information on this page changes in **Tactics** mode.

## 10. Image Override Folder

Analyst may manually enter, remove or adjust facility image overrides.

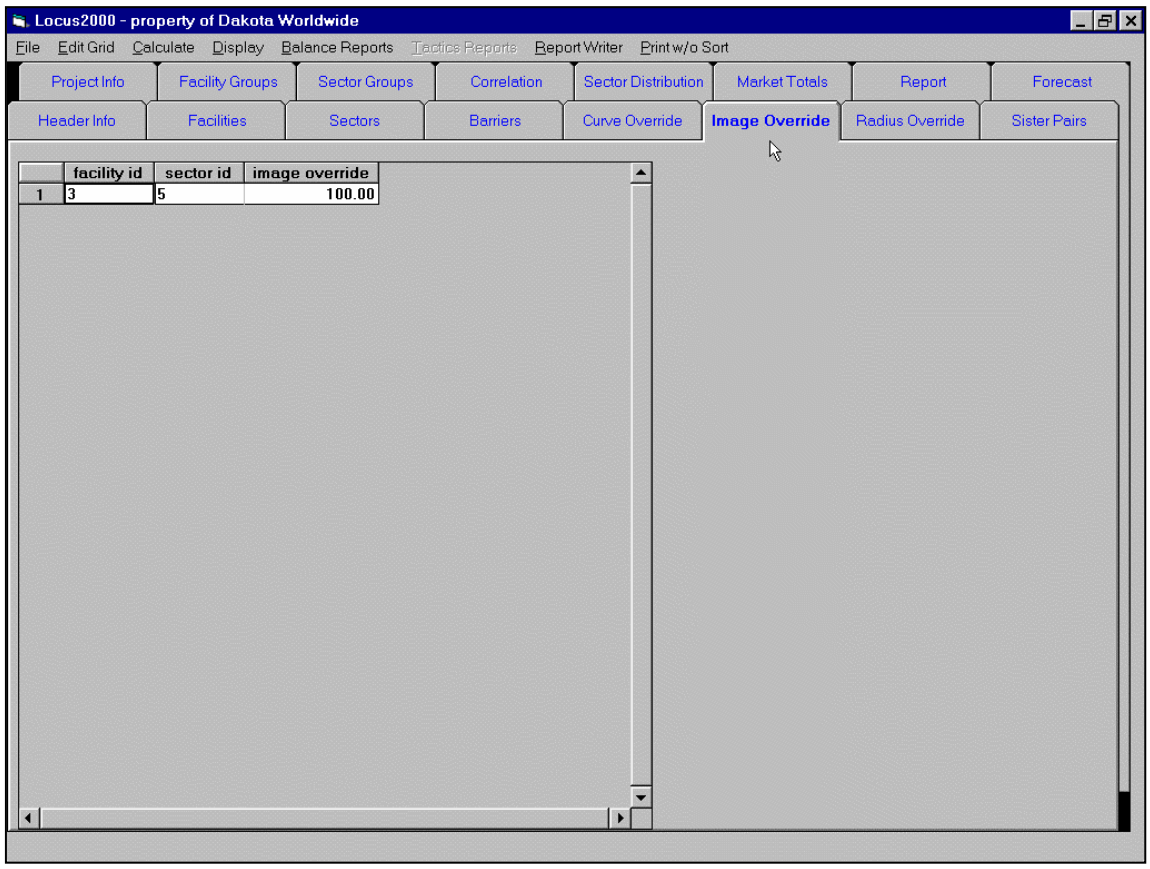



**Figure 3-17: Image Override Folder.**

## 11. Report Folder

This is where the basic **Balance** and **Tactic** reports are shown, including *Trade Area Totals, Stores in Operation, Sector Summary, Facility Market Share by Sector, Store Volume by Sector, Chain Summary, Market Shares by Distance, Correlation Report, Competitor Information, Competitor Scorecard* and *Trade Area Data by Sector*.

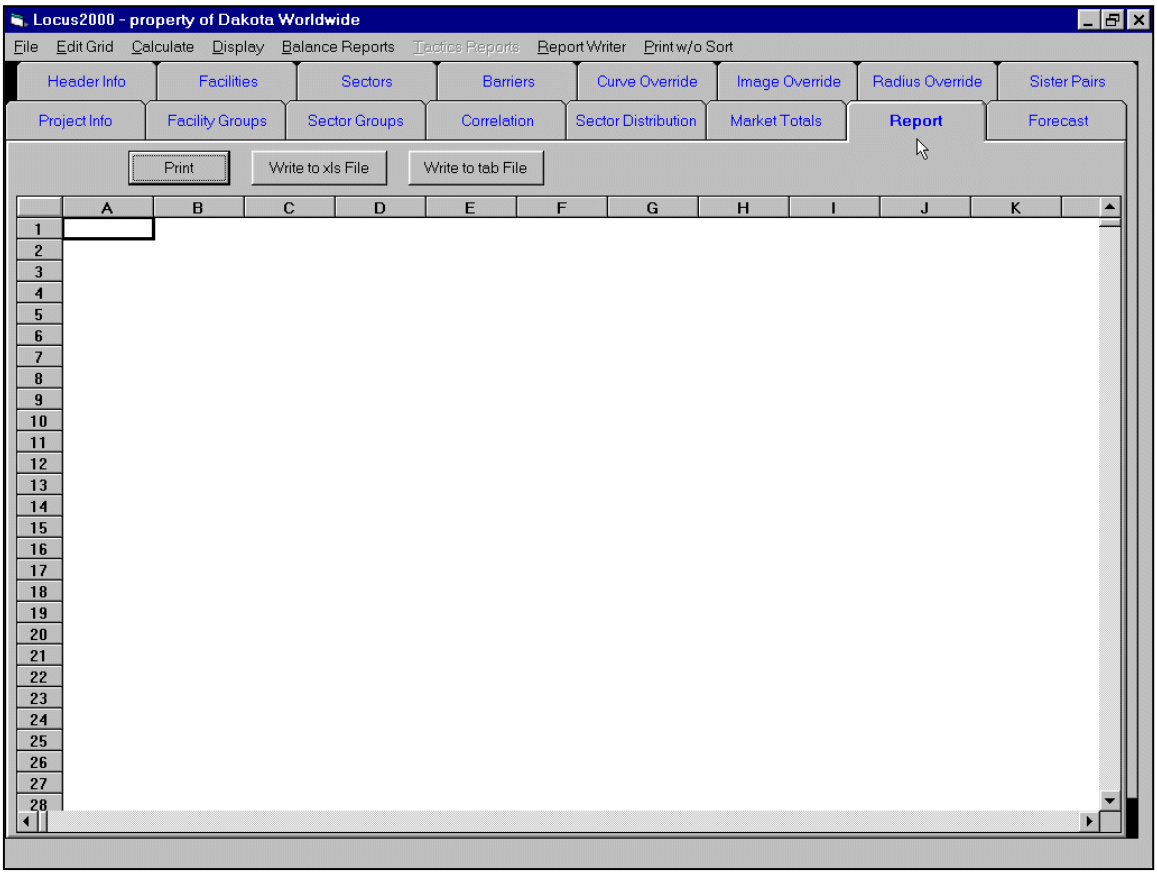



**Figure 3-18: Reports Folder.**

User may print or export data to an Excel file or a tab-delimited ASCII text file.

## 12. Radius Override Folder

Analyst may manually enter, remove or adjust facility radius overrides.

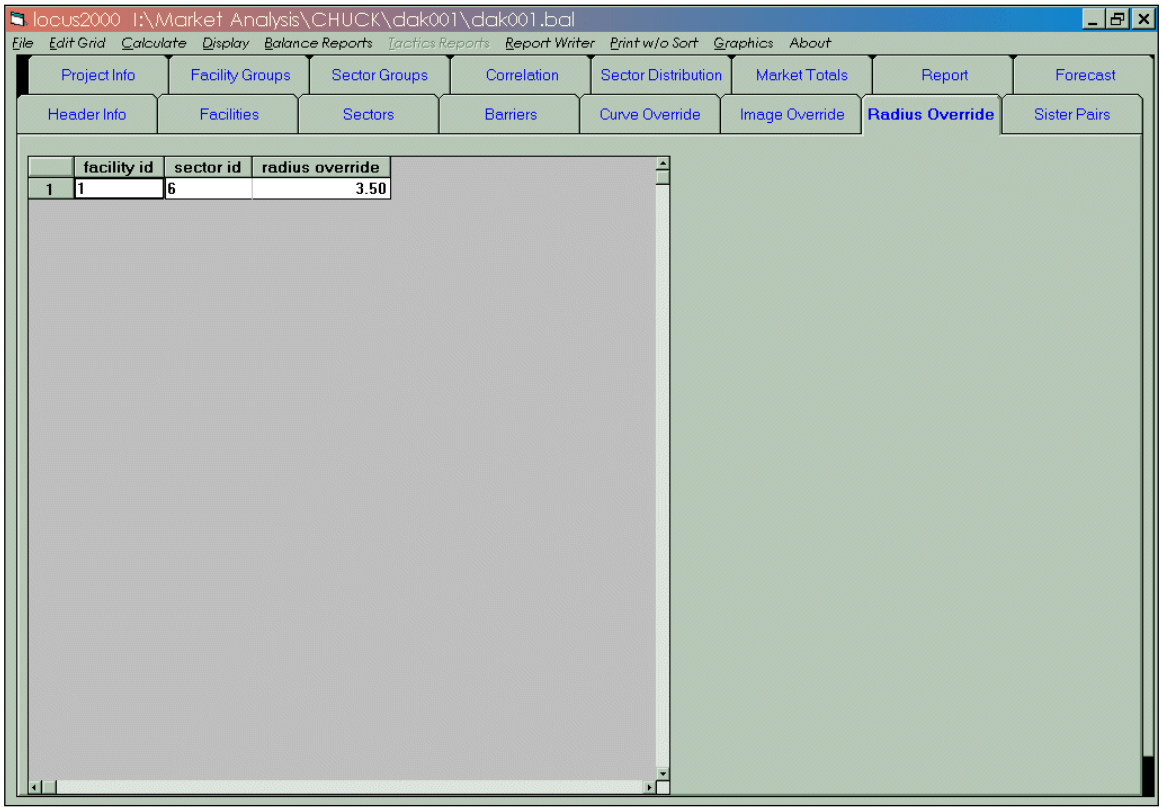


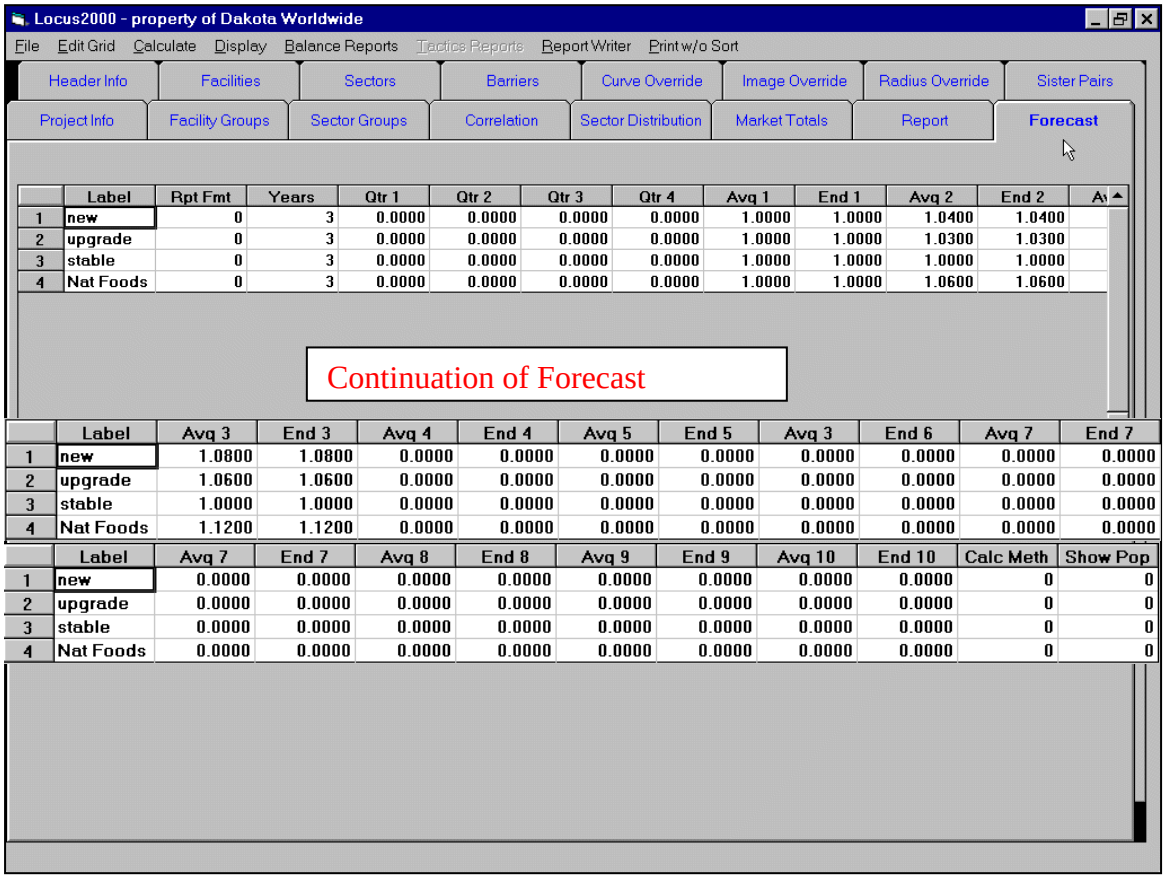

**Figure 3-19: Radius Override Folder.**

## 13. Forecast Folder

Analyst may manually enter, remove or adjust forecast parameters.

Select your calculation method, abbreviated in the column as **Calc Meth**, for the type of forecast method you wish to use in the growth reports. If you select the default (1), you will direct the program to use a linear calculation method. LOCUS™ Pro will multiply the sales projection number by the multipliers currently set for year 1, year 2 and year 3. If you select (0) you will direct the program to use a weighted calculation that incorporates population growth and inflation (adjusting PCE). If you select (2), you will direct LOCUS Pro to recalculate volumes without modifying the pulling powers.

Any changes you make to *New*, *Upgrade*, *Stable* or *Natural Foods* forecasts will not be saved. However, if you create additional forecast parameters, they can be saved by clicking on **File/Save**, then **Forecast Info to fcst.txt**. Your changes will then be available for future use.




| | Label | Rpt Fmt | Years | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Avg 1 | End 1 | Avg 2 | End 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | new | 0 | 3 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0400 | 1.0400 |
| 2 | upgrade | 0 | 3 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0300 | 1.0300 |
| 3 | stable | 0 | 3 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 4 | Nat Foods | 0 | 3 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 1.0000 | 1.0000 | 1.0600 | 1.0600 |

| | Label | Avg 3 | End 3 | Avg 4 | End 4 | Avg 5 | End 5 | Avg 3 | End 6 | Avg 7 | End 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | new | 1.0800 | 1.0800 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | upgrade | 1.0600 | 1.0600 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | stable | 1.0000 | 1.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 4 | Nat Foods | 1.1200 | 1.1200 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | Label | Avg 7 | End 7 | Avg 8 | End 8 | Avg 9 | End 9 | Avg 10 | End 10 | Calc Meth | Show Pop |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | new | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0 |
| 2 | upgrade | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0 |
| 3 | stable | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0 |
| 4 | Nat Foods | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0 |

**Figure 3-20: Forecast Folder.**

**<u>Forecast Calculation Methods include</u>:**

***CalcMethod=0 Weighted***

Volumes are recalculated. The image is multiplied by the relevant forecast factor (average year 1, average year 2, end year 1, end year 2, etc.). This is the same as increasing the facilities pulling power by the relevant factor. The population and PCE are calculated for the relevant forecast date. (For example, if the market date is 6/Pro, then the date for end year 2 is 6/2001).

> ***Formula:*** *Year 2 end volume for Facility1* = potential year 2 * end year 2 factor * pulling power for $facil_1$ / (pulling power for the sector + pulling power for $facil_1$ * (end year 2 factor – 1 ))

***CalcMethod=1 Linear***

The current market date facility volume is multiplied by the relevant forecast factor.

> ***Formula:*** *Year 2 end volume* = market date calculated volume * end year 2 factor

**Definition:** ***CalcMethod2=2 Linear+pop+pce***
Volumes are recalculated, but the pulling powers are not modified. The population and pce are calculated for the relevant date. Each facility sector volume is multiplied by the relevant forecast factor.

| | |
|---|---|
| ***Formula:*** | *Year 2 end volume* = potential year 2 * end year 2 factor * pulling power for $facil_1$ / (pulling power for the sector) |

For example, consider a model with 2 facilities and 1 sector. The sector potential for the market date is 3000. The sector potential for year 2 end is 3030 due to a 1% population increase (inflation = 0). The end year 1 factor is 1 and the end year 2 factor is 1.05. The pulling power for facility 1 ($facil_1$) is 100 and the pulling power for facility 2 ($facil_2$) is 200. This makes the pulling power for the sector 300 (100+200). The market date calculated volume for the facilities is 1000 and Pro. The problem is to find end year 2 volumes for $facil_1$ using all three methods.

**Example:** ***CalcMethod=0 Weighted***

Year 2 End Volume = 3030 * 1.05 * 100 / (300 + 100 * (1.05 – 1)) = 1043 (approx.)

**Example:** ***CalcMethod=1 Linear Formula***

Year 2 end volume = 1000 * 1.05 = 1050

**Example:** ***CalMethod=2 Linear+pop+pce***

Year 2 end volume = 3030 * 1.05 *100 / 300 = 1060.5

Note that when there is more than one sector, calculation for Methods 0 and 2 are not only made for each sector; individual volumes are added together.

### 14. Sister Pairs Folder

Analyst may manually enter, remove or adjust sister pair parameters.

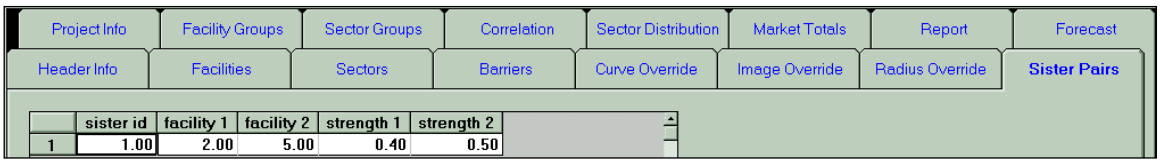



**Figure 3-21: Sister Pairs Folder.**

# D. Accessing Folders

Since LOCUS™ Pro is designed in a Windows format, you may move from one function to another by simply clicking on the desired folder with your cursor.

# E. Keyboard Movement Options

LOCUS™ Pro **Main Menu**: The following keyboard movement options are available:

| | |
|---|---|
| **Arrow Keys** | Use the up arrow (🡅), down arrow (🡇), right arrow (🡆) or left arrow (🡄) keys to move from cell to cell. Or click on desired cell to move quickly. **Tab** will also move you from cell to cell. |
| **Backspace** | In some cases, you can use the **Backspace** key to delete information so that you can type in new data. |
| **Spacebar** | Allows you to add text. |
| **Enter** | Press **Enter** after you have typed your entry to go to the next field. |
| **Esc** | The **Esc** key cancels whatever you have entered in the field. |

# F. Quitting a LOCUS™ Pro Session

The **File/Quit** command allows you to exit from LOCUS™ Pro and return to Windows. If you have made any modifications that you have not saved, you will get a warning message as shown in Figure 3-22.

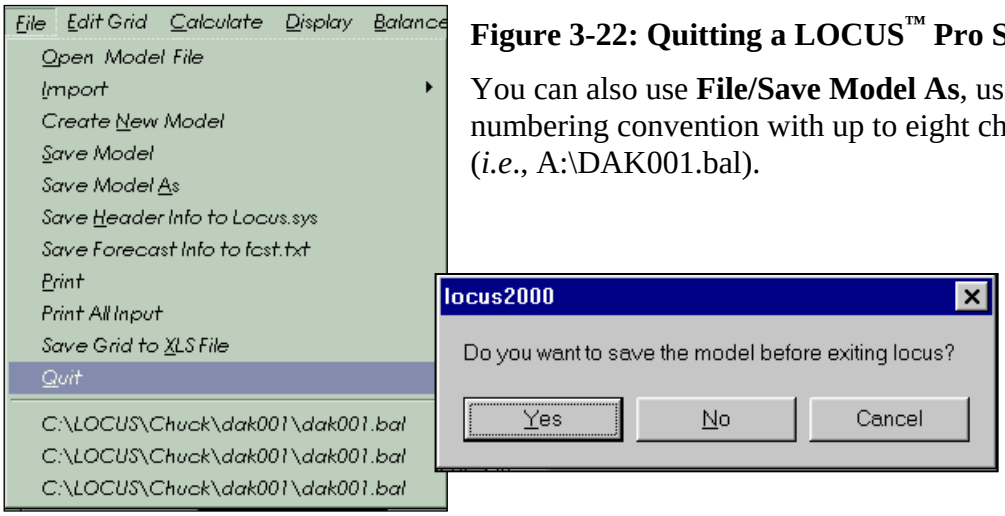



**Figure 3-22: Quitting a LOCUS™ Pro Session.**

You can also use **File/Save Model As**, using a numbering convention with up to eight characters (*i.e.*, A:\DAK001.bal).

# G. Naming Files

When you create a balanced model, or if you obtain a market model someone else has balanced using LOCUS™ Pro, you will notice that LOCUS™ Pro assigns a ***.bal** extension to the file. In this way, LOCUS™ Pro prevents you from making tactical changes and saving them to a *.bal (balanced model) file.

> **NOTE:** To prevent accidentally writing over a balanced model, we strongly recommend that you always use a *.bal extension whenever you are copying or renaming a balanced model file.

# H. Edit Grid


**Figure 3-23: Edit Grid Menu.**

This pull-down or right click function is used to insert, delete, append, add rows, delete rows, copy, paste, sort, multiply, add or subtract and renumber during balancing or in **Tactics** mode.

# I. Balance Reports


**Figure 3-24: Balance Reports Menu.**

This pull-down menu allows you to view the described reports, such as the *Trade Area Totals* in Figure 3-25 below. To print the report, click on **Print**. To write to a Microsoft Excel (XLS) file, click on **Write to XLS File**.

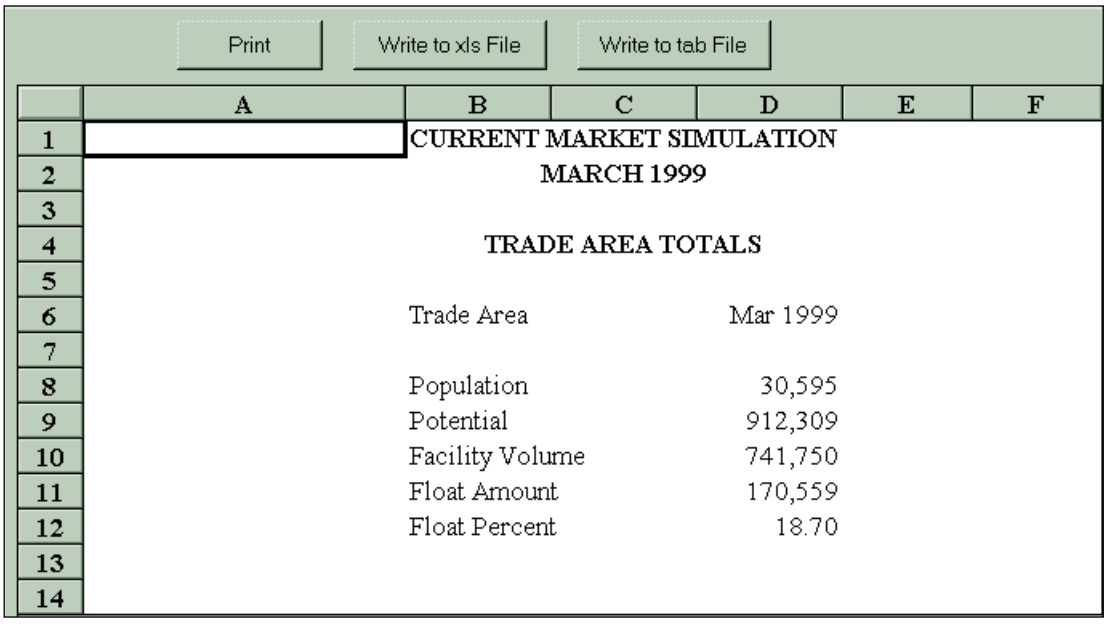
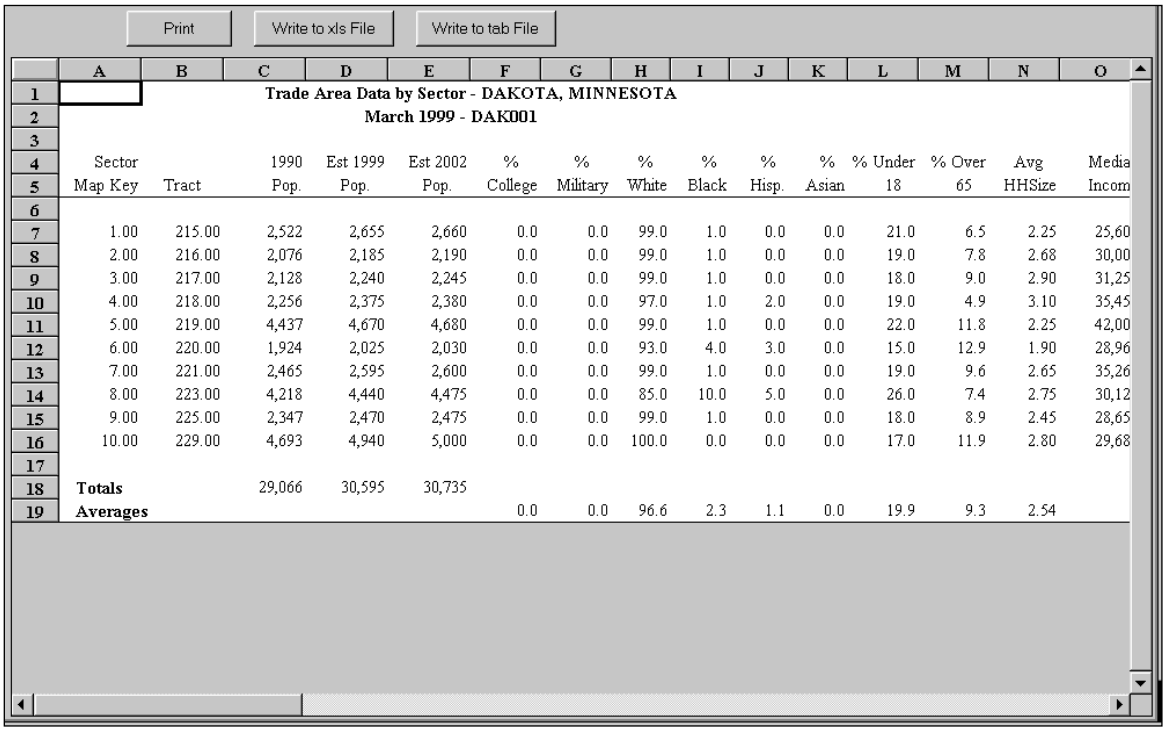



**Figure 3-25: Sample of Trade Area Totals Report.**

The *Trade Area Data by Sector*, as shown in Figure 3-26, can be exported as a Microsoft Excel (*.xls) file by clicking on **Write to xls File**. It will be given the model's name (*i.e.*, DAK001TA.xls). The *Competitor Information* and *Competitor Score Card* reports may also be exported to Excel in similar fashion.




**Trade Area Data by Sector - DAKOTA, MINNESOTA**
**March 1999 - DAK001**

| Sector Map Key | Tract | 1990 Pop. | Est 1999 Pop. | Est 2002 Pop. | % College | % Military | % White | % Black | % Hisp. | % Asian | % Under 18 | % Over 65 | Avg HHSize | Media Incom |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.00 | 215.00 | 2,522 | 2,655 | 2,660 | 0.0 | 0.0 | 99.0 | 1.0 | 0.0 | 0.0 | 21.0 | 6.5 | 2.25 | 25,60 |
| 2.00 | 216.00 | 2,076 | 2,185 | 2,190 | 0.0 | 0.0 | 99.0 | 1.0 | 0.0 | 0.0 | 19.0 | 7.8 | 2.68 | 30,00 |
| 3.00 | 217.00 | 2,128 | 2,240 | 2,245 | 0.0 | 0.0 | 99.0 | 1.0 | 0.0 | 0.0 | 18.0 | 9.0 | 2.90 | 31,25 |
| 4.00 | 218.00 | 2,256 | 2,375 | 2,380 | 0.0 | 0.0 | 97.0 | 1.0 | 2.0 | 0.0 | 19.0 | 4.9 | 3.10 | 35,45 |
| 5.00 | 219.00 | 4,437 | 4,670 | 4,680 | 0.0 | 0.0 | 99.0 | 1.0 | 0.0 | 0.0 | 22.0 | 11.8 | 2.25 | 42,00 |
| 6.00 | 220.00 | 1,924 | 2,025 | 2,030 | 0.0 | 0.0 | 93.0 | 4.0 | 3.0 | 0.0 | 15.0 | 12.9 | 1.90 | 28,96 |
| 7.00 | 221.00 | 2,465 | 2,595 | 2,600 | 0.0 | 0.0 | 99.0 | 1.0 | 0.0 | 0.0 | 19.0 | 9.6 | 2.65 | 35,26 |
| 8.00 | 223.00 | 4,218 | 4,440 | 4,475 | 0.0 | 0.0 | 85.0 | 10.0 | 5.0 | 0.0 | 26.0 | 7.4 | 2.75 | 30,12 |
| 9.00 | 225.00 | 2,347 | 2,470 | 2,475 | 0.0 | 0.0 | 99.0 | 1.0 | 0.0 | 0.0 | 18.0 | 8.9 | 2.45 | 28,65 |
| 10.00 | 229.00 | 4,693 | 4,940 | 5,000 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 17.0 | 11.9 | 2.80 | 29,68 |
| **Totals** | | 29,066 | 30,595 | 30,735 | | | | | | | | | | |
| **Averages** | | | | | 0.0 | 0.0 | 96.6 | 2.3 | 1.1 | 0.0 | 19.9 | 9.3 | 2.54 | |

**Figure 3-26: Sample of Trade Area Data by Sector Report.**

# Chapter 4
# Defining the LOCUS™ Pro Parameters

Each LOCUS™ Pro model can be assigned unique parameters and default values. This chapter explains the procedures you need to know to create model default parameters and model limits.

## A. Setting Up LOCUS™ Pro Parameters

LOCUS™ Pro comes to you with a number of parameters already defined for system workspace and model options. You may accept these defaults or enter your own. These configuration parameters apply to all new models you create, and the parameters are saved with each new model when you first save it.

LOCUS™ Pro parameters define an empty model, or "shell," which you fill in as you add data. In some cases, defaults also serve as limits for data values that you enter later, allowing LOCUS™ Pro to ensure the data entered is of reasonable value.

LOCUS™ Pro parameters are set using the **Header Info** folder on the LOCUS™ Pro **Balance** Main Menu.

> **NOTE:** You cannot change configuration values (for example: size, location, distance mode, and so forth) in the LOCUS™ Pro **Tactics** mode. You must redefine these from the LOCUS™ Pro **Balance** mode.

## 1. Modifying Limits

The fields shown in Figure 4-1, the **Header Info** folder, define the size and working area for your model database.

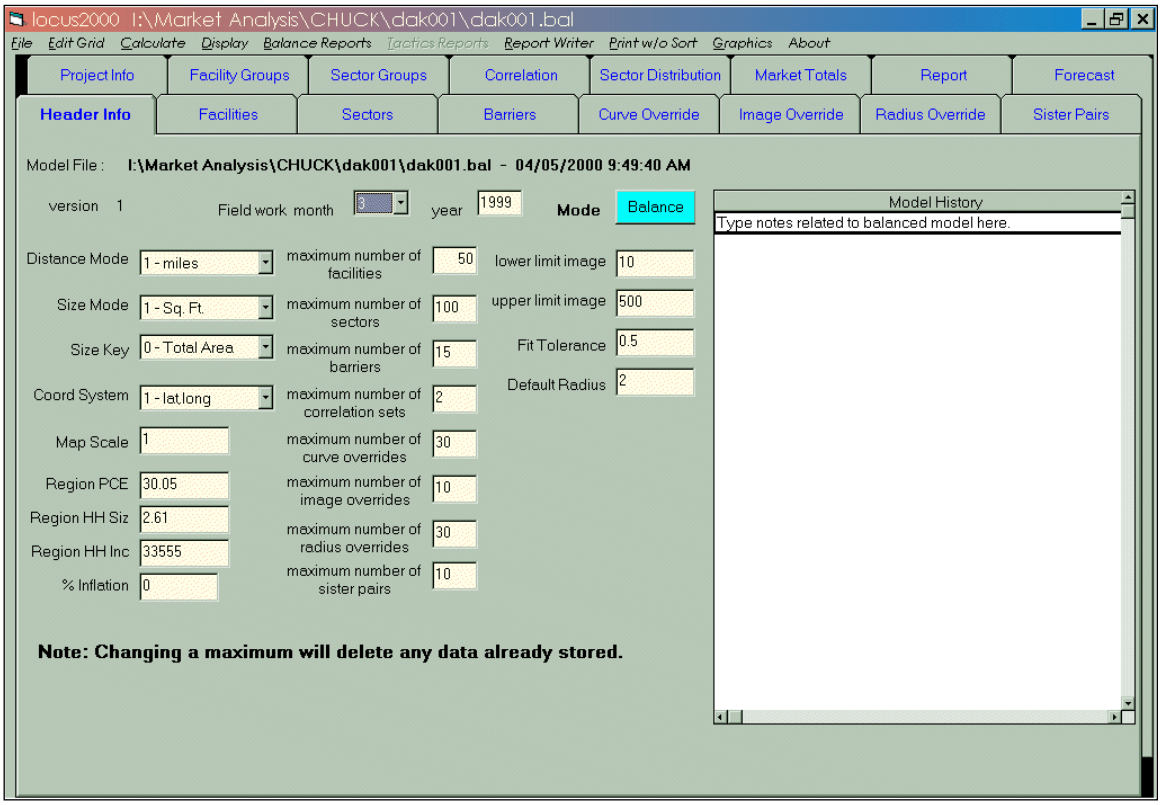



**Figure 4-1: Header Info Folder**

LOCUS™ Pro comes to you with values already defined for these workspace parameters:

- Facilities = 50
- Sectors = 100
- Barriers = 15
- Correlation sets = 2
- Curve overrides = 30
- Image overrides = 30
- Radius overrides = 30
- Sister Pairs = 10

If you need a larger or smaller model, increase or decrease any of these **Header Info** folder parameters to your model database requirements. This will conserve disk and memory allocation on your system and allow your computer to operate more efficiently.

Either accept the default values displayed or enter the number of facilities, sectors, barriers and overrides you will allow in this model. Your modified defaults should include the total number currently in the marketplace, plus the test sites. Define your

data ranges so you don't exceed limits that would cause the system to stop the modeling process. When you have entered all your changes, click on the next desired folder to continue creating your model. **Save** your model at this point.

### 2. Modifying Units of Measurement

Use the **Header Info** folder to define how you will measure certain elements of your model.

**Map Scale**

Use 1 for lat/long. For x/y, enter the ratio of miles per inch (or kilometers per centimeter) used when measuring the map. For instance, if your work map has a scale of 1 mile = 3 inches, your map scale would be 1/3, entered as the decimal value .333. Enter a value greater than 0, up through 99.999.

**Distance Mode**

Your report can be in either miles or metric kilometers. Select the appropriate option: 0 = kilometers, 1 = miles.

**Size Mode**

Facility size can be measured in either square feet or square meters. Select the appropriate option: 0 = square meters, 1 = square feet.

**Size Key**

You may measure sales volume against either total facility size, or just the area customers can access (sales area). Select the appropriate option: 0 = total area, 1 = sales area.

### 3. Modifying Report Controls

Use the **Project Info** folder to modify the report controls for your model (see **Project Info** folder, Figure 3-6 in *Chapter 3*).

Accept the default values or enter new values for the following fields:

**Low Draw**

The program will not display or print the estimated volume of any facility with a draw of this limit or below.

**Market Share Cutoff**

The program will not display or print any information on any sector with a reported market share below this value.

# B. Changing the File Limits

When you are adding facilities, sectors, barriers or overrides to your model, you may exceed the limits you defined when you first created your LOCUS™ Pro model.

For example, when you created the model, you may have defined a limit of 100 sectors, but later you realize you need 110 sectors instead. The **Header Info** folder allows you to change this limit from 100 to 110.

Selecting **File/Save Header Info to locus.sys** allows you to change system workspace restrictions for subsequent models.

# Chapter 5
# Creating the Model

This chapter discusses how to build your preliminary model database from the information you have collected from field work. Use these steps in creating your model database:

1. Give the model a unique ID (file name)
2. Add sectors
3. Add facilities
4. Add any barriers
5. Add consumer research (correlation) information, if available*
6. Verify and correct the information
7. Save your preliminary model

After your preliminary model is saved, you may print various reports and lists to determine if the preliminary model is an accurate picture of the actual market. If it is, you may begin tactical simulation. If it is not, then you must balance the model so it matches actual market conditions before running any tactics.

* **NOTE:** Consumer research data is discussed in *Chapter 7, Entering Correlation Data.*

## A. Creating a New File

To create a new model, click on **File** and highlight **Create New Model**.

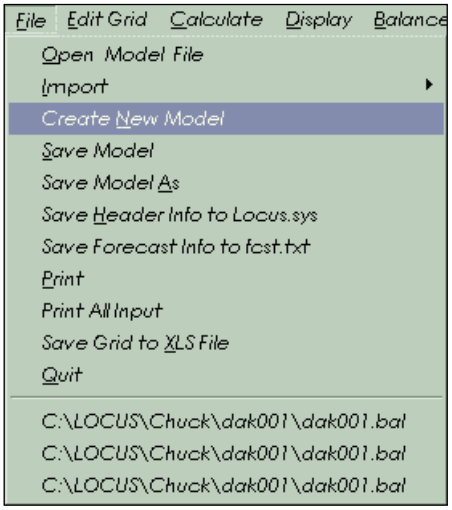



**Figure 5-1: Creating a New Model.**

The **New Model** work screen appears (Figure 5-2). You can enter the information from your field study in the fields displayed.

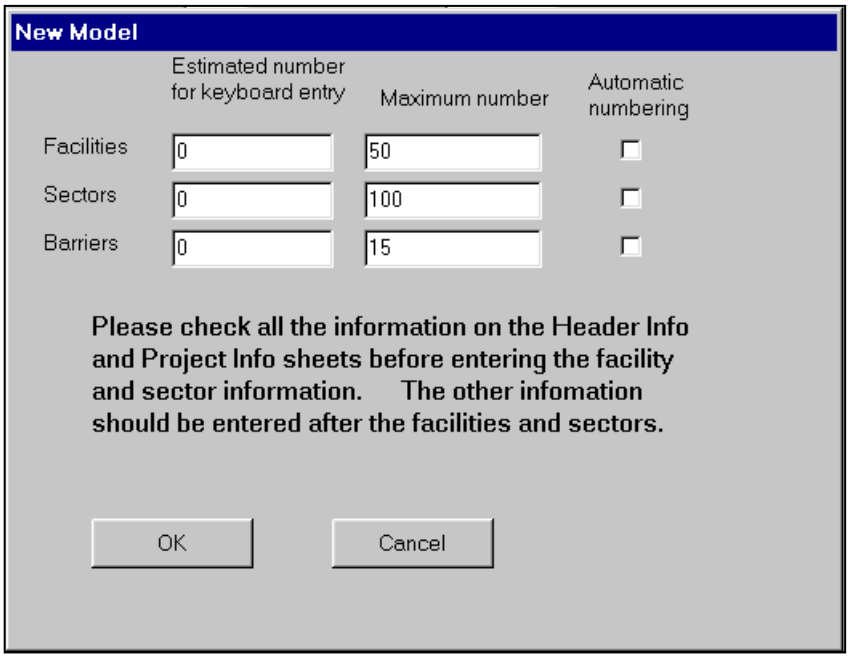



**Figure 5-2: New Model Work Screen.**

Enter in the number of *Facilities*, *Sectors* and *Barriers* to be used. Allow for the number of sites and market changes you plan to add in **Tactics**.

> **NOTE:** The *Maximum number* is a standard default. If you need to have more facilities, sectors or barriers than the default total allows, change the maximum in the **Header Info** folder to the required number.

Next, fill in all pertinent **Header Info** data, as discussed in *Chapter 3* and shown in Figure 5-3.

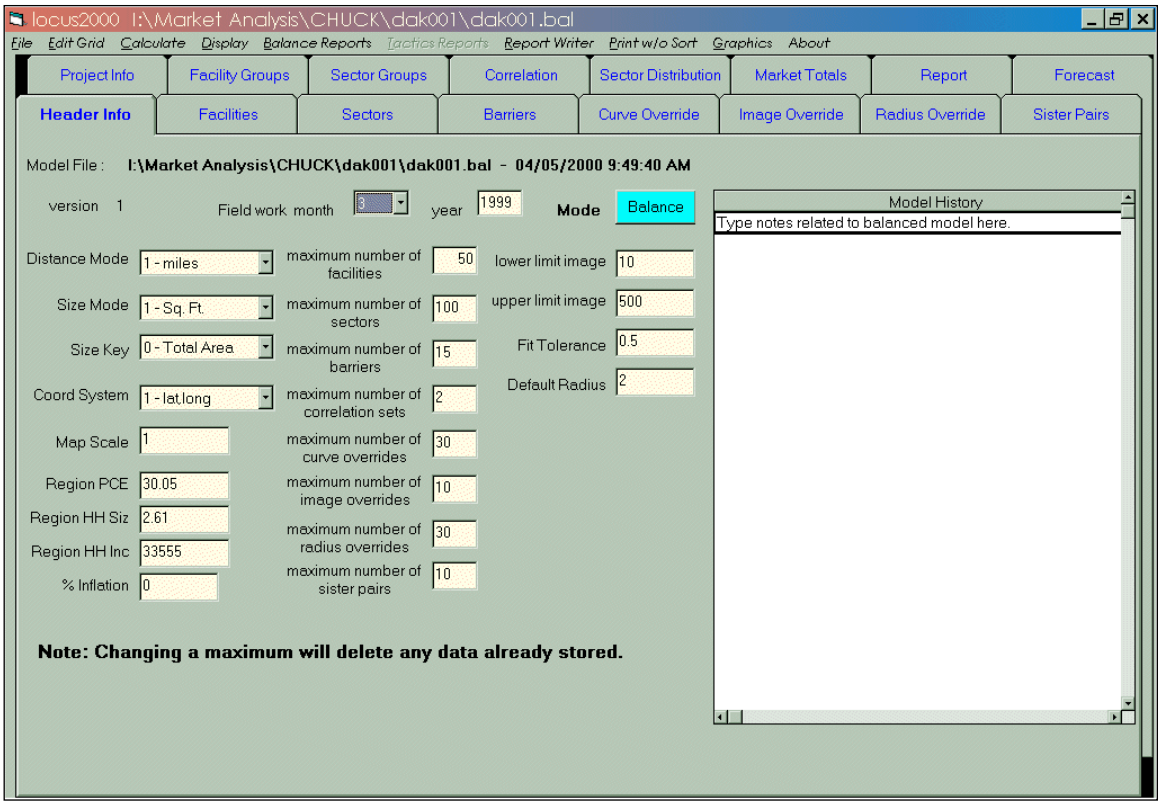



**Figure 5-3: Header Info Folder.**

You can accept the defaults or enter different information.

### Field Work

Enter the month and year when you completed the field work.

- Month: 1 = January, 12 = December.
- Year: The program displays the default year. Either accept the default or enter the year when you completed the field work.

### Map Scale

The default is 1 for lat/long users. If you are still using x/y's, make the appropriate changes. This map scale is a ratio of miles per inch or kilometers per centimeter. For instance, if your work map has a scale of 1 mile = 3 inches, your map scale would be 1/3, entered in the decimal value .333. Enter a value greater than 0, up through 99.999.

**Model Radius**

The system default value is 2. Enter the new value if you want to change this radius. Enter a value greater than or equal to .01, up through 100.

# B. Adding Project Information

Next, click on the **Project Info** folder (Figure 5-4) and add pertinent data to the displayed fields.

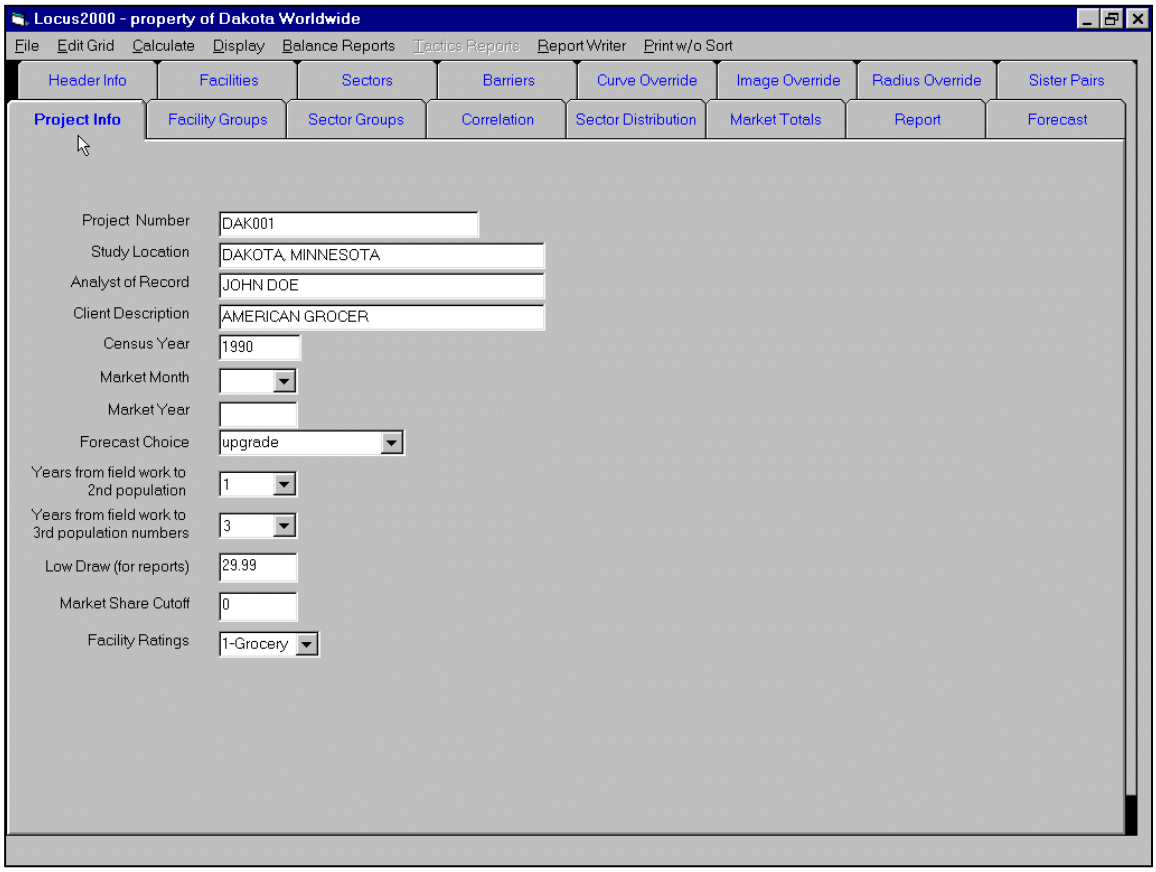



**Figure 5-4: Project Info Folder.**

The following fields are required:

| | |
|---|---|
| **Project Number:** | If your organization uses a unique project number for accounting purposes, enter it here (limited to 22 characters). |
| **Location:** | Enter a description of the study area (limited to 32 characters). |
| **Analyst:** | Enter the name of the analyst (limited to 32 characters). |
| **Client:** | Enter the name of the client (limited to 32 characters). |

At this point, you may want to change the LOCUS™ Pro defaults or the parameters you set up when you were configuring your model. If you make a change, you will override the default LOCUS™ Pro parameters previously set for this model.

> **NOTE:** Modifying the database limits, units of measure, and report controls is discussed in *Chapter 4*.

When you have finished your entries, **Save** file as, for example, *a:\Dak001.bal*.

# C. Adding Facilities

Use the **Facilities** folder to either import or manually enter facilities as follows:

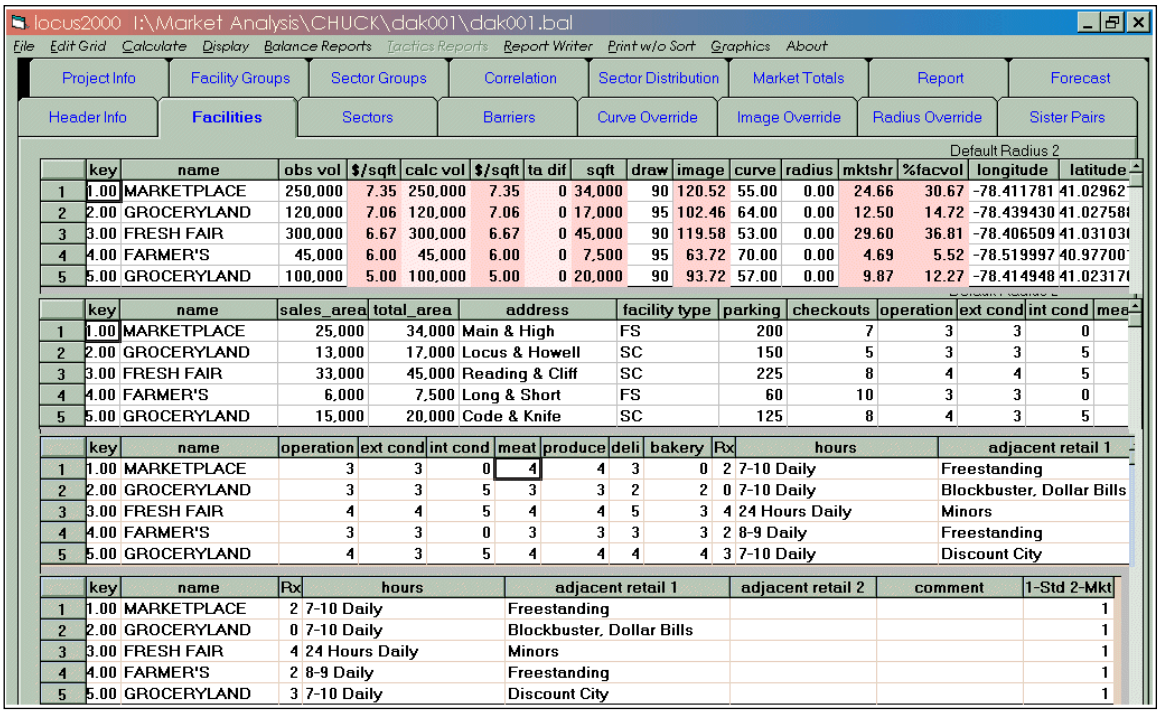



**Figure 5-5: Facilities Folder with Sample Data.**

Now that you have created a file, begin adding information from your field work. You can import facilities as described in *Chapter 3, Step 4*, or add information store by store from a data sheet or spreadsheet file (such as Excel or Quattro Pro).

To add a facility, click on the **Facilities** folder. Right click your mouse and use the **Edit Grid** pull-down menu to insert a new row, creating a new facility line. You may also insert, append, add and delete as many rows as desired (*i.e.*, ask for ten rows and ten rows appear). Figure 5-6 displays the pull-down menu.

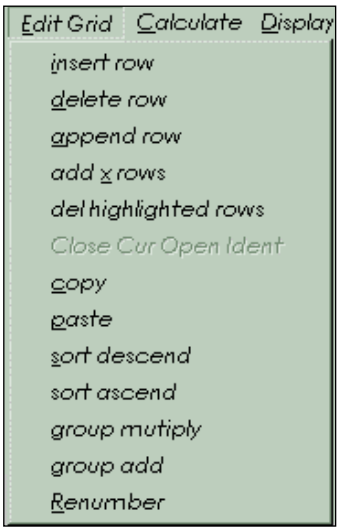



**Figure 5-6: Edit Grid Menu.**

To add facilities to the **Facilities** folder (See Figure 5-5), fill in all required data, along with any optional data, as listed below:

## 1. Required Data

Required data includes *Name, Map Key, Sales Area* or *Total Area, Volume, Draw, Curve, Radius* (use "0" if it is model default), *X-coordinate* (*long*), *Y-coordinate (lat*) and *Sales Display* (1 = Standard, 2 = Market).

**Name**
The name of the facility, limited to 16 characters.

**Map Key**
Enter a value greater than 0, through 99999.99.

**Sales Area**
The interior floor space of the facility, in square feet/square meters, that the customer can access (does not include storage and preparation areas). Enter a value from 1 through 999999.

**Total Area**
The total size of building/facility, in square feet/square meters. Enter a value from 1 through 999999.

**NOTE:** LOCUS™ Pro requires that you enter either *Sales* or *Total Area*. The program will use the one you have selected in your configuration options to perform calculations. The user will then use the other data set as reference.

**Volume**
The sales attributed to the area of the facility being modeled. This value can be entered as weekly, monthly or yearly volume. This amount is also referred to as *observed volume.* Enter a value from 1 through 999999999.

**(Longitude) X-Coordinate**
The Longitude coordinate pinpoints the physical location of a facility east or west of the prime meridian.

**(Latitude) Y-Coordinate**

The Latitude coordinate pinpoints the physical location of a facility north or south of the equator.

**Draw**

The percent of the facility's observed volume that is derived from the trade area. Enter a value from 1 through 99.

**Curve**

The measurement of a facility's pulling power or ability to attract customers over distance. Enter a value from 1 through 99.

**Radius**

The radius defines the facility's ability to reach out over distance. A facility may have a different radius from the overall model radius. This is not a mandatory field. You can accept the default model radius that is displayed in this field by entering 0. If you enter a different radius for this facility, it must be a value greater than .1, through 99.99.

## 2. Optional Data

The rest of the data in the **Facilities** folder is not required for modeling, but can be used as reference information, or to produce a competitor analysis listing.

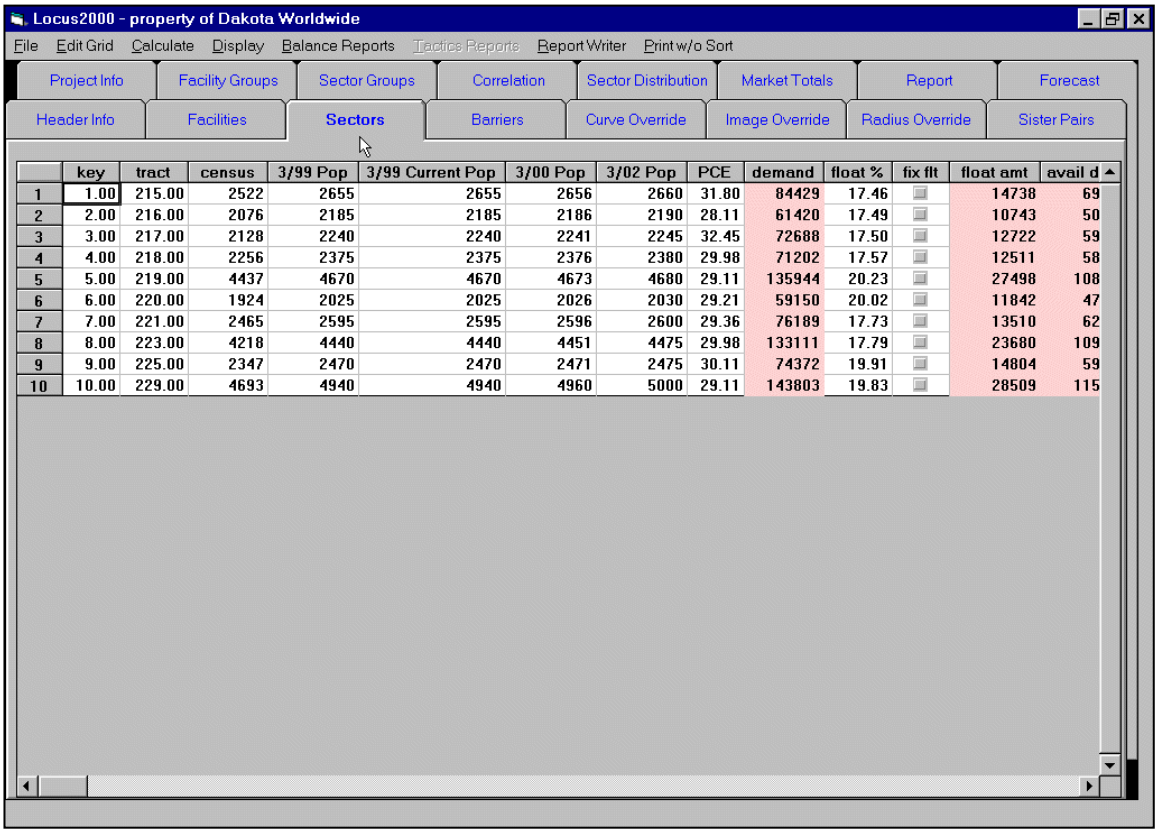
**Optional data include:**

- *Address*
- *Facility Type*
- *Parking Checkouts*
- *Operation*
- *Exterior Condition*
- *Interior Condition*
- *Meat*
- *Produce*
- *Deli*
- *Bakery*
- *Pharmacy*
- *Hours*
- *Adjacent Retail 1*
- *Adjacent Retail 2*
- *Comment*

# D. Adding Sectors

Next, add the sectors you have defined into your database, either through import or manual input.

Select the **Sectors** folder from the Main Menu.




| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE | demand | float % | fix flt | float amt | avail d |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2522 | 2655 | 2655 | 2656 | 2660 | 31.80 | 84429 | 17.46 | | 14738 | 69 |
| 2 | 2.00 | 216.00 | 2076 | 2185 | 2185 | 2186 | 2190 | 28.11 | 61420 | 17.49 | | 10743 | 50 |
| 3 | 3.00 | 217.00 | 2128 | 2240 | 2240 | 2241 | 2245 | 32.45 | 72688 | 17.50 | | 12722 | 59 |
| 4 | 4.00 | 218.00 | 2256 | 2375 | 2375 | 2376 | 2380 | 29.98 | 71202 | 17.57 | | 12511 | 58 |
| 5 | 5.00 | 219.00 | 4437 | 4670 | 4670 | 4673 | 4680 | 29.11 | 135944 | 20.23 | | 27498 | 108 |
| 6 | 6.00 | 220.00 | 1924 | 2025 | 2025 | 2026 | 2030 | 29.21 | 59150 | 20.02 | | 11842 | 47 |
| 7 | 7.00 | 221.00 | 2465 | 2595 | 2595 | 2596 | 2600 | 29.36 | 76189 | 17.73 | | 13510 | 62 |
| 8 | 8.00 | 223.00 | 4218 | 4440 | 4440 | 4451 | 4475 | 29.98 | 133111 | 17.79 | | 23680 | 109 |
| 9 | 9.00 | 225.00 | 2347 | 2470 | 2470 | 2471 | 2475 | 30.11 | 74372 | 19.91 | | 14804 | 59 |
| 10 | 10.00 | 229.00 | 4693 | 4940 | 4940 | 4960 | 5000 | 29.11 | 143803 | 19.83 | | 28509 | 115 |

**Figure 5-7: Sectors Folder with Sample Data.**

When you completed your LOCUS™ Pro Input Sheet, you identified the sector X and Y coordinates, the expenditure and the population. Using this form, enter the information in the fields displayed.

Right click on the mouse to access the **Edit Grid** pull-down menu and add rows. Enter the number of rows to be added and they will appear. The following information is required:

**Map Key**

The unique numerical reference used to identify the sector within this data set. Enter a value greater than 0, through 99999.99.

**(Longitude) X-Coordinate**

The Longitude coordinate pinpoints the physical location of a sector east or west of the prime meridian.

**(Latitude) Y-Coordinate**

The Latitude coordinate pinpoints the physical location of a sector north or south of the equator.

**Expenditure**

The per capita expenditure as of the date of the field work. Enter a value from 0 through 9999.99. The expenditure must be in the same unit of measure as is the facility volume. For example, if you specified the facility volume as monthly, then you must specify the expenditure as monthly.

**Population**

Base - The estimated current population of the sector. This is a required entry. Enter a value from 0 through 32767.

1st year - The projected population of the sector one year after field work.

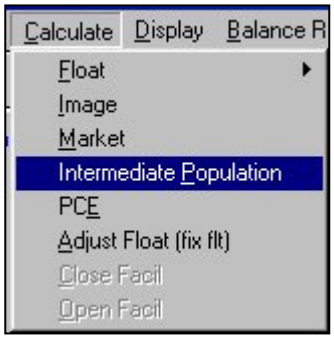
3rd year - The projected population of the sector three years after field work.

**NOTE:** You must enter the 1st and 3rd year populations.

**Calculate Intermediate Population**

LOCUS™ Pro will calculate the intermediate population when you select **Intermediate Population** from the **Calculate** pull-down menu.

**Figure 5-8: Calculating Intermediate Population.**



The intermediate population changes from 0 as shown in Figure 5-9...

**Figure 5-9: Intermediate Population Before Calculation.**

| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2,522 | 2,655 | 2,655 | 0 | 2,660 | 31.80 |
| 2 | 2.00 | 216.00 | 2,076 | 2,185 | 2,185 | 0 | 2,190 | 28.11 |
| 3 | 3.00 | 217.00 | 2,128 | 2,240 | 2,240 | 0 | 2,245 | 32.45 |
| 4 | 4.00 | 218.00 | 2,256 | 2,375 | 2,375 | 0 | 2,380 | 29.98 |
| 5 | 5.00 | 219.00 | 4,437 | 4,670 | 4,670 | 0 | 4,680 | 29.11 |
| 6 | 6.00 | 220.00 | 1,924 | 2,025 | 2,025 | 0 | 2,030 | 29.21 |
| 7 | 7.00 | 221.00 | 2,465 | 2,595 | 2,595 | 0 | 2,600 | 29.36 |
| 8 | 8.00 | 223.00 | 4,218 | 4,440 | 4,440 | 0 | 4,475 | 29.98 |
| 9 | 9.00 | 225.00 | 2,347 | 2,470 | 2,470 | 0 | 2,475 | 30.11 |
| 10 | 10.00 | 229.00 | 4,693 | 4,940 | 4,940 | 0 | 5,000 | 29.11 |

to the population shown below.

**Figure 5-10: Intermediate Population After Calculation.**

| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2,522 | 2,655 | 2,655 | 2,657 | 2,660 | 31.80 |
| 2 | 2.00 | 216.00 | 2,076 | 2,185 | 2,185 | 2,187 | 2,190 | 28.11 |
| 3 | 3.00 | 217.00 | 2,128 | 2,240 | 2,240 | 2,242 | 2,245 | 32.45 |
| 4 | 4.00 | 218.00 | 2,256 | 2,375 | 2,375 | 2,377 | 2,380 | 29.98 |
| 5 | 5.00 | 219.00 | 4,437 | 4,670 | 4,670 | 4,673 | 4,680 | 29.11 |
| 6 | 6.00 | 220.00 | 1,924 | 2,025 | 2,025 | 2,027 | 2,030 | 29.21 |
| 7 | 7.00 | 221.00 | 2,465 | 2,595 | 2,595 | 2,597 | 2,600 | 29.36 |
| 8 | 8.00 | 223.00 | 4,218 | 4,440 | 4,440 | 4,452 | 4,475 | 29.98 |
| 9 | 9.00 | 225.00 | 2,347 | 2,470 | 2,470 | 2,472 | 2,475 | 30.11 |
| 10 | 10.00 | 229.00 | 4,693 | 4,940 | 4,940 | 4,960 | 5,000 | 29.11 |

**Calculate PCE**

LOCUS™ Pro will calculate PCE, or Per Capita Expenditure, if you select **PCE** from the **Calculate** pull-down menu. Be sure you have filled in the *Regional PCE*, *Regional Household Size* and *Regional Household Income* fields of the **Header Info** folder before attempting this calculation.

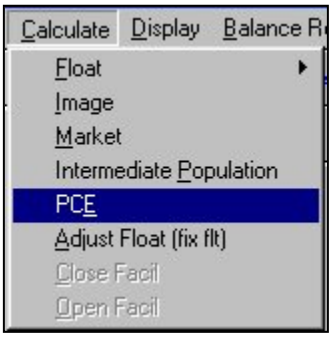



**Figure 5-11: Calculate PCE.**

**Formula:** (@log(Sector Income/Region Income) * 0.5+1) * (@log(Region HH size/Sector HH size) * 0.6+1)

Calculating the PCE from the import amount of 1, as shown in Figure 5-12...

**Figure 5-12: PCE Before Calculation.**

| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2,522 | 2,655 | 2,655 | 2,656 | 2,660 | 1.00 |
| 2 | 2.00 | 216.00 | 2,076 | 2,185 | 2,185 | 2,186 | 2,190 | 1.00 |
| 3 | 3.00 | 217.00 | 2,128 | 2,240 | 2,240 | 2,241 | 2,245 | 1.00 |
| 4 | 4.00 | 218.00 | 2,256 | 2,375 | 2,375 | 2,376 | 2,380 | 1.00 |
| 5 | 5.00 | 219.00 | 4,437 | 4,670 | 4,670 | 4,673 | 4,680 | 1.00 |
| 6 | 6.00 | 220.00 | 1,924 | 2,025 | 2,025 | 2,026 | 2,030 | 1.00 |
| 7 | 7.00 | 221.00 | 2,465 | 2,595 | 2,595 | 2,596 | 2,600 | 1.00 |
| 8 | 8.00 | 223.00 | 4,218 | 4,440 | 4,440 | 4,451 | 4,475 | 1.00 |
| 9 | 9.00 | 225.00 | 2,347 | 2,470 | 2,470 | 2,471 | 2,475 | 1.00 |
| 10 | 10.00 | 229.00 | 4,693 | 4,940 | 4,940 | 4,960 | 5,000 | 1.00 |

to the amount for this model as shown in Figure 5-13.

**Figure 5-13: PCE After Calculation.**

| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2,522 | 2,655 | 2,655 | 2,656 | 2,660 | 31.80 |
| 2 | 2.00 | 216.00 | 2,076 | 2,185 | 2,185 | 2,186 | 2,190 | 28.11 |
| 3 | 3.00 | 217.00 | 2,128 | 2,240 | 2,240 | 2,241 | 2,245 | 32.45 |
| 4 | 4.00 | 218.00 | 2,256 | 2,375 | 2,375 | 2,376 | 2,380 | 29.98 |
| 5 | 5.00 | 219.00 | 4,437 | 4,670 | 4,670 | 4,673 | 4,680 | 29.11 |
| 6 | 6.00 | 220.00 | 1,924 | 2,025 | 2,025 | 2,026 | 2,030 | 29.21 |
| 7 | 7.00 | 221.00 | 2,465 | 2,595 | 2,595 | 2,596 | 2,600 | 29.36 |
| 8 | 8.00 | 223.00 | 4,218 | 4,440 | 4,440 | 4,451 | 4,475 | 29.98 |
| 9 | 9.00 | 225.00 | 2,347 | 2,470 | 2,470 | 2,471 | 2,475 | 30.11 |
| 10 | 10.00 | 229.00 | 4,693 | 4,940 | 4,940 | 4,960 | 5,000 | 29.11 |

**Comment**

Use this field to enter any comments you may have about this sector, up to 20 characters.

**NOTE:** Remember to **Save** your model before continuing (*i.e., a:\dak001.bal*).

# E. Adding Barriers

At this point, add barriers to your model if they exist.

Barriers are obstacles that restrict travel from one area to another. Many markets have physical (standard) or psychological (weighted) barriers that affect the way consumers shop. Physical barriers are landscape features such as rivers, railroad tracks and other obstacles which consumers may find inconvenient or impossible to cross. Psychological barriers may be ethnic or economic, but they also discourage shoppers from traveling into or out of certain areas.

Adding barriers to a model affects the distance between facilities and sectors. Distance is calculated from the sector to the facility using the most logical route. A barrier adds to the distance because people must travel around it to get to the facility. A weighted barrier influences the distance calculation between a sector and facility. All of this changes the market share distribution and image allocation.

It is recommended that you use the **Display Path** window to draw your barriers into the model. To open your Display window, select **Display** from the menu located above the main folders, choose **Path**, and the **Display Path** window appears.

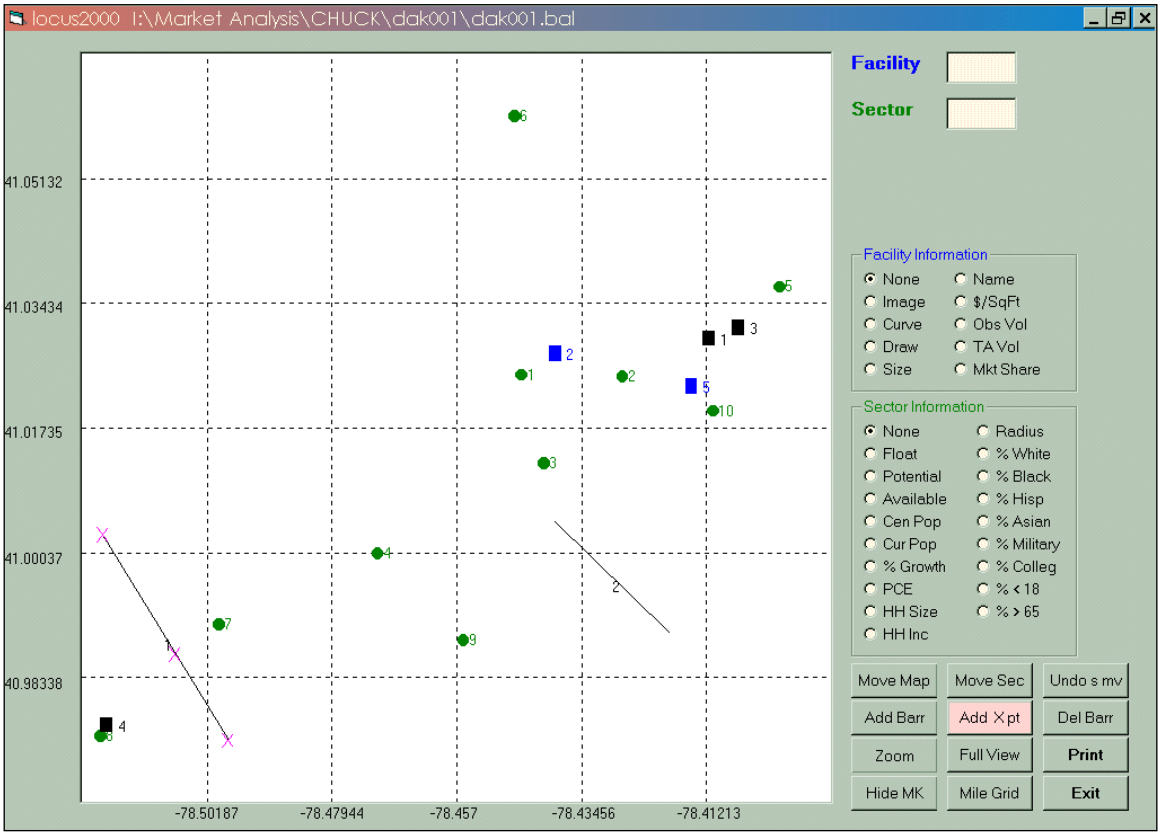



**Figure 5-14: Display Path Window Showing Two Barriers.**

To add a barrier, click on **Add Barr**, and it will be highlighted as shown in Figure 5-14. Place the cursor where you want your new barrier to begin, left click and drag to where you want it to end, and release finger from left click. Your barrier is now drawn.

To add crosspoints, click on your new barrier (or click anywhere in the map area) to make crosspoints appear, as shown in Figure 5-15. To stop adding crosspoints, click on **Add X pt** to deactivate this function**.**

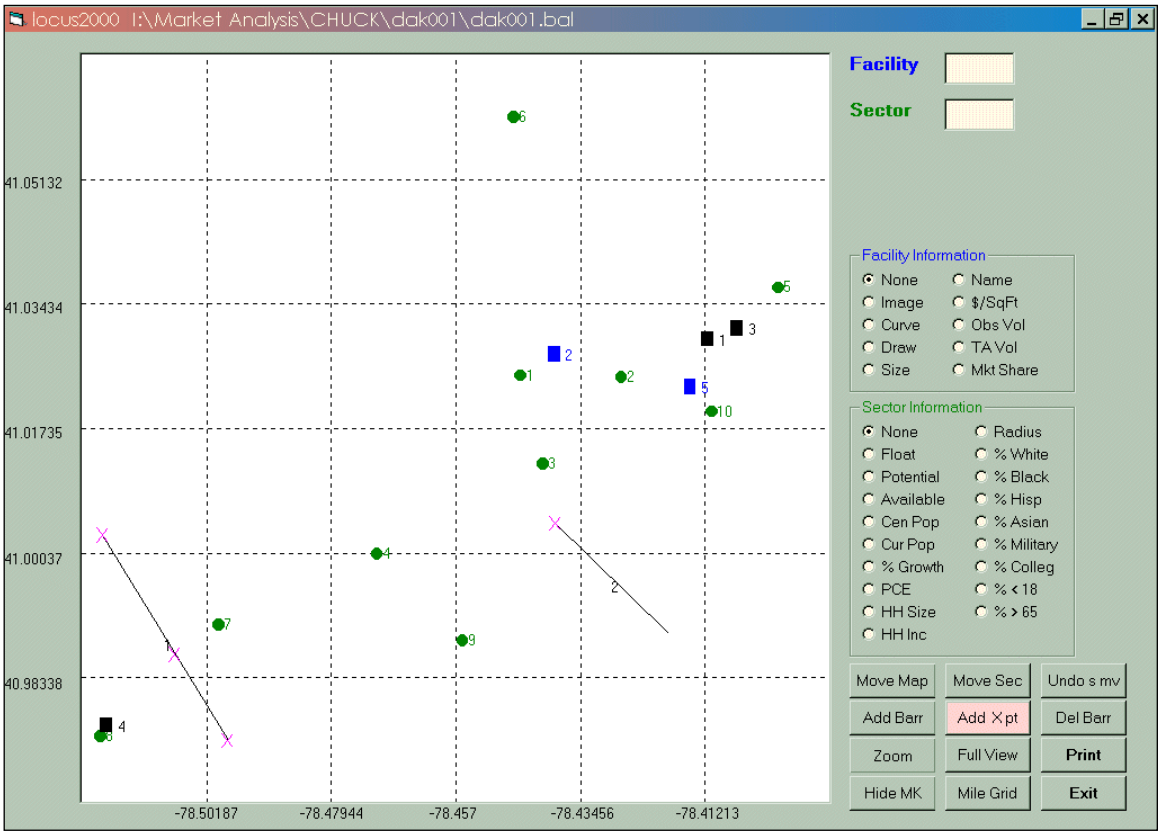



**Figure 5-15: Adding Crosspoints.**

To add crosspoints to a specific barrier, click on **Add X pt** to activate this function, and the **select barrier** box will appear. Select which barrier to use and then add crosspoints by clicking on the barrier.

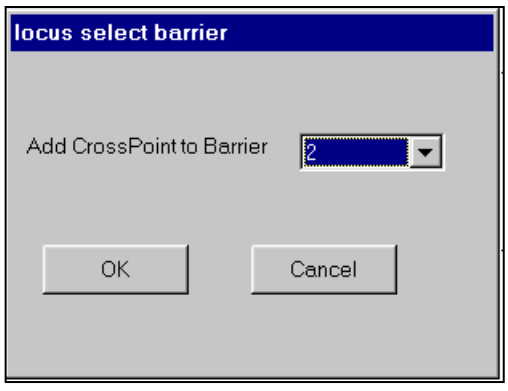



**Figure 5-16: Selecting a Barrier.**

You may also delete a barrier when you click on the **Del Barr** button.

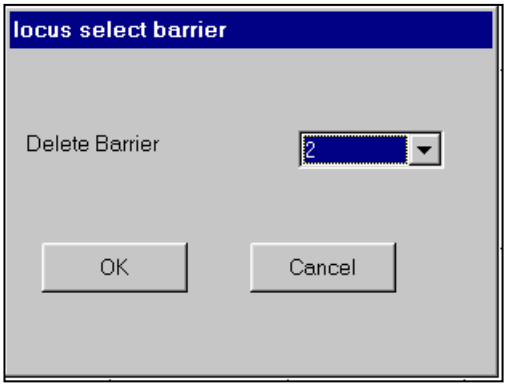



**Figure 5-17: Deleting a Barrier.**

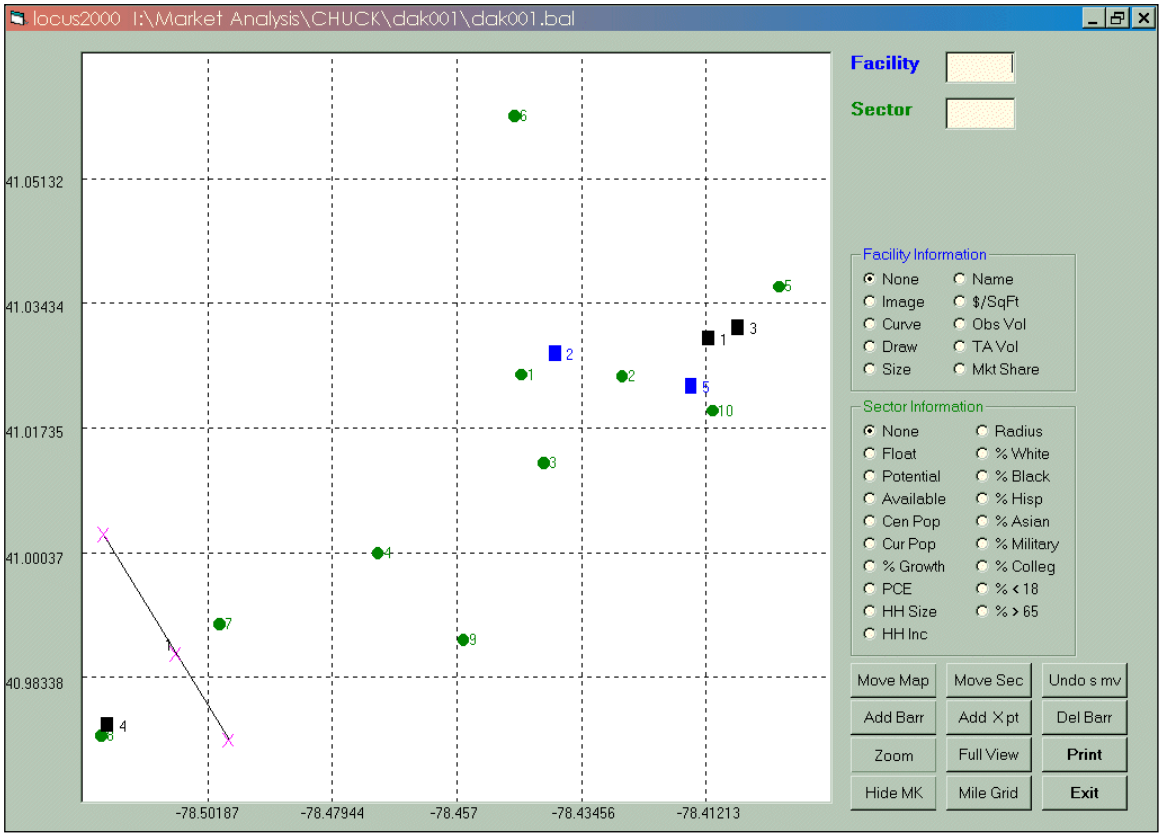



**Figure 5-18: Results after a Barrier is Deleted.**

## 1. Barriers

**Standard**

A barrier with no weights and up to ten crosspoints. Use standard barriers to simulate physical barriers.

**Weighted**

A barrier with a "weight" specified for each side, influencing the distance calculation between a sector and a facility. Use weighted barriers to simulate psychological barriers. To weight a barrier, add the desired weight in the **Barriers** folder. Otherwise, it will be a standard barrier.

**Crosspoint (X-point)**

A specific point (crosspoint) from which the program calculates distances. A crosspoint is similar to a bridge across a river; you can cross wherever you have defined a crosspoint. If you add a crosspoint, the program calculates the distance as a straight line from the sector to the crosspoint, then as a straight line from the crosspoint to the facility or next barrier.

When you add multiple barriers to a model, the weights and crosspoints will have a cumulative effect on the distance calculations between a sector and a facility.

## 2. End Points

Each barrier is defined with a map key, a starting point and an ending point. LOCUS™ Pro arbitrarily names these points "end points 1 and 2." Each end point is defined by an x-coordinate and a y-coordinate.

**Map Key**

The unique numerical reference used to identify a specific barrier within this model. Enter a value greater than 0, through 99999.99.

**End point (Longitude) X-Coordinate**

The Longitude coordinate pinpoints the physical location of an end point east or west of the prime meridian.

**End point (Latitude) Y-Coordinate**

The Latitude coordinate pinpoints the physical location of an end point north or south of the equator.

**NOTE: Do not assume that end points also serve as crosspoints**. If you want an end point to be a crosspoint, you must enter its location as one of the barrier crosspoints. If you choose to weight a barrier, you must always assign weights to both sides. LOCUS™ Pro measures the distance from the sector to the facility. When the program encounters a weighted barrier, the distance from the sector to the facility does not change. However, the distance from the barrier to the facility is multiplied by the weight on that side of the barrier.

**3. Two-Sided Weights**

The relative weight of one side of the barrier to the other side allows LOCUS™ Pro to model situations where people will go outside of their trade area to shop, but people outside will not go into the trade area to shop.

**Side Point:**
This is a reference point that you identify on one side of the barrier.

**Weight 1:**
LOCUS™ Pro assigns this weight to the side of the barrier containing the reference point assigned above. This weight can be any number greater than 0 and less than 10. The program rounds to two significant digits after the decimal point. Thus, if you specified a weight of 3.206, LOCUS™ Pro would store it as 3.21.

**Weight 2:**
LOCUS™ Pro assigns this weight to the side opposite the one containing the reference point. The limits are the same as those specified for Weight 1.

**Crosspoints 1 through 10:**
When you have defined the barrier, you must enter the Longitude and Latitude (x and y) coordinates that pinpoint the location of the crosspoint on the grid for each crosspoint.

# F. Removing Model Information

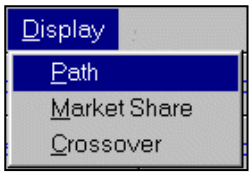
To remove information from your model, go to the appropriate folder, such as the **Facilities** folder. Click on the row that you desire to delete, then right click, highlight **Delete Row** and the row will be removed.

**!!CAUTION!!** When you delete a row you erase information from your LOCUS™ Pro file. If you wish to restore this information, you must re-enter it.

Follow the same procedure to remove a sector or barrier.

# G. Displaying Paths

You can display (draw) a path to show the distance between a facility and a sector while you are in the LOCUS™ Pro **Balance** mode. This command is also available in the LOCUS™ Pro **Tactics** mode. Displaying paths allows you to look at the route used by LOCUS™ Pro to calculate the distance between a sector location and a facility. If you have added barriers and crosspoints, drawing paths will show you the path from the sector location to the crosspoint to the facility.




To display a path, select **Display**/**Path** from the pull-down LOCUS™ Pro **Balance** Main Menu.

**Figure 5-19: Display Menu.**

The **Display Path** window will show the barriers you have entered, if any, and the facility and sector map key entered. The program will display the path and distance, as shown in Figure 5-20.

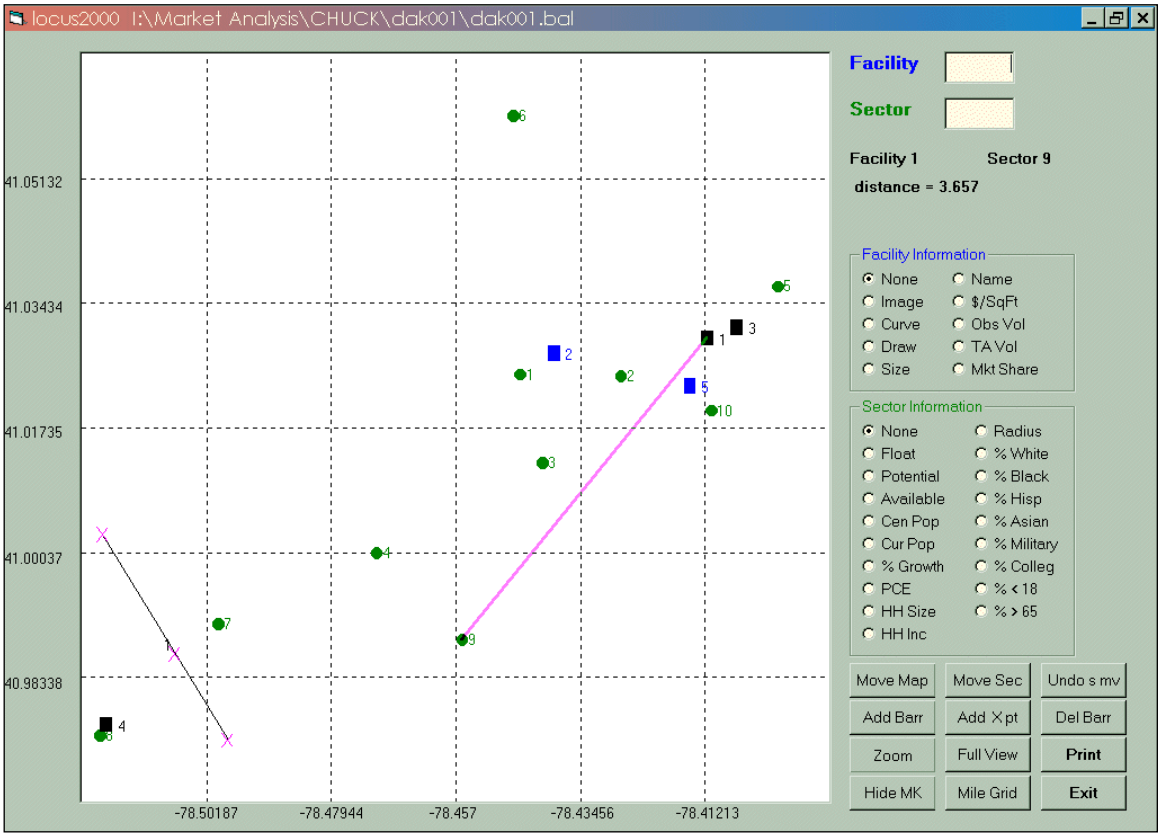



**Figure 5-20: Display Path Window Showing Path and Distance.**

The symbols on the graph are as follows:

| | |
|---|---|
| **Straight line** | Represents a barrier |
| **X** | Represents a crosspoint |
| **Sphere** | Represents a sector |
| **Box** | Represents a facility |

In this example, the distance between Facility 1 and Sector 9 is 3.657 miles.

### 1. Displaying Paths with a Standard Barrier

If you add a barrier with a crosspoint, the distance from a sector to a facility will change.

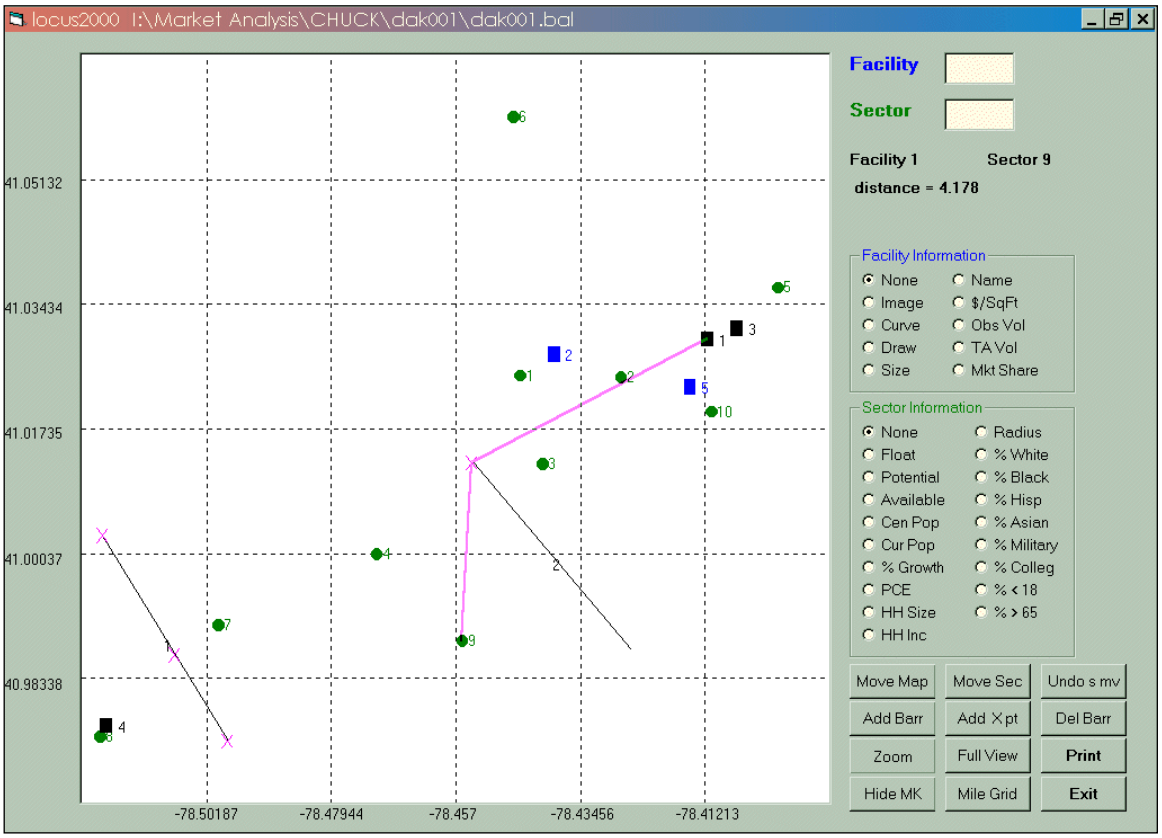



**Figure 5-21: Displaying Paths with a Standard Barrier.**

Notice that the distance has changed from 3.657 to 4.178 miles. The program calculates the distance as a straight line from the sector to the crosspoint, then as a straight line from the crosspoint to the facility.

## 2. Displaying Paths with a Weighted Barrier

If you introduce a weighted barrier, the graphic will show a distance change. Figure 5-22 shows Barrier 2 is now weighted with "wt 1 = 1.50" and "wt 2 = 1.50".

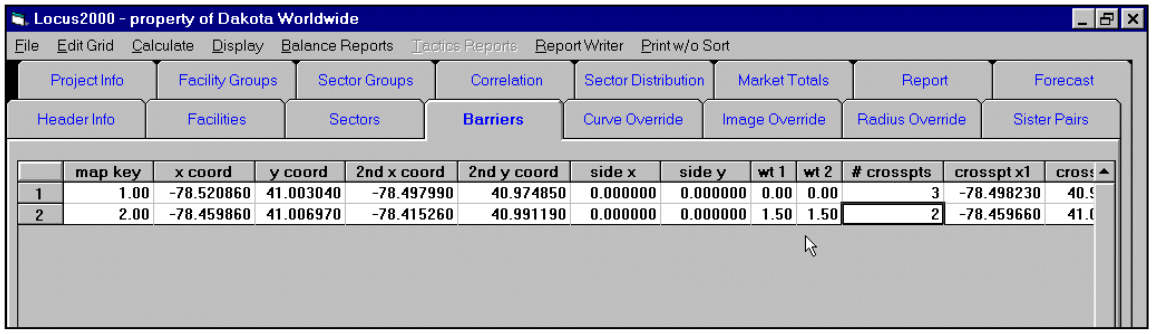



**Figure 5-22: Introducing a Weighted Barrier.**

Figure 5-21 had shown the distance from Sector 9 to Facility 1 as 4.178 miles. When you introduce a weighted barrier, this distance will change, as shown in Figure 5-23. Notice that the distance from Sector 9 to Facility 1 has increased to 5.43 miles.

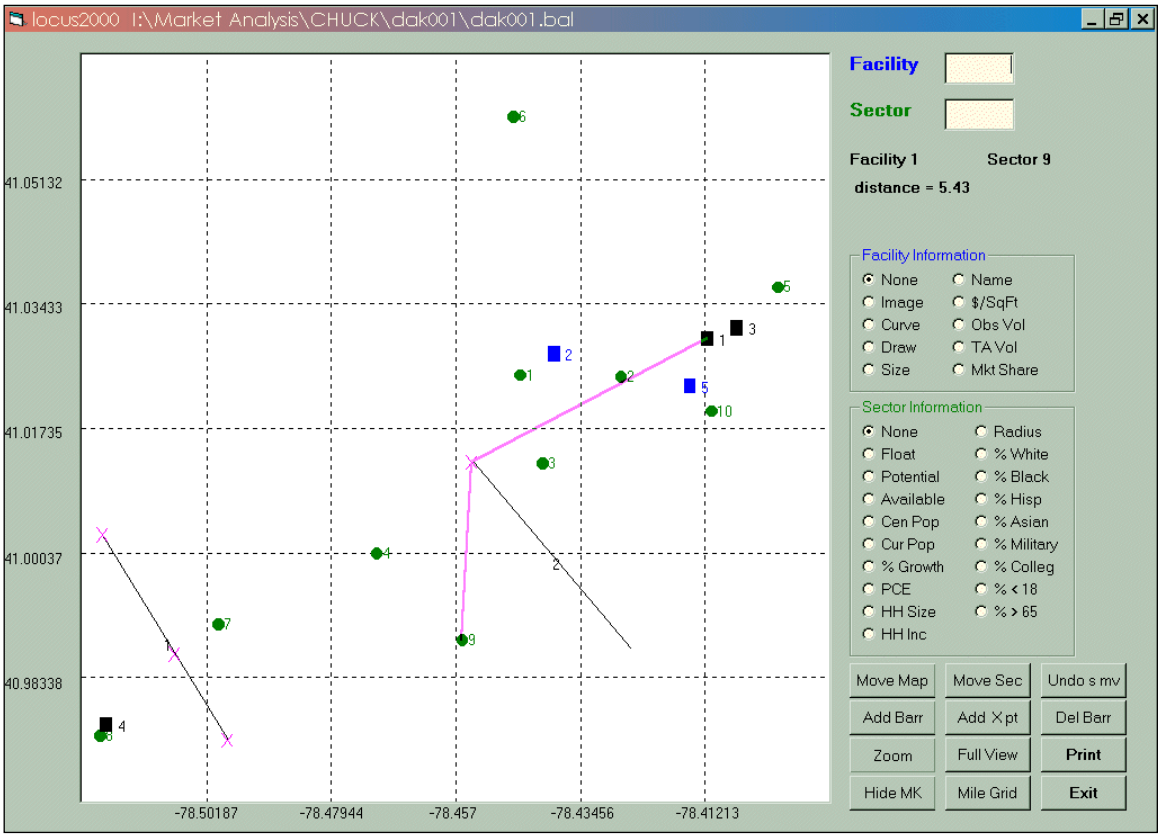



**Figure 5-23: Displaying Paths with a Weighted Barrier.**

When calculating distances with weighted barriers, the distance from the sector to the barrier remains unweighted, but the distance from the barrier to the facility is weighted.

# H. Checking Data for Entry Errors

Your next step is to check the data you entered to make sure it is accurate. This will save you time later when you are balancing the model.

To check your data, you may print each individual folder. Simply highlight the data to be printed, click on the pull-down menu **Print w/o Sort** and print the folder's contents.

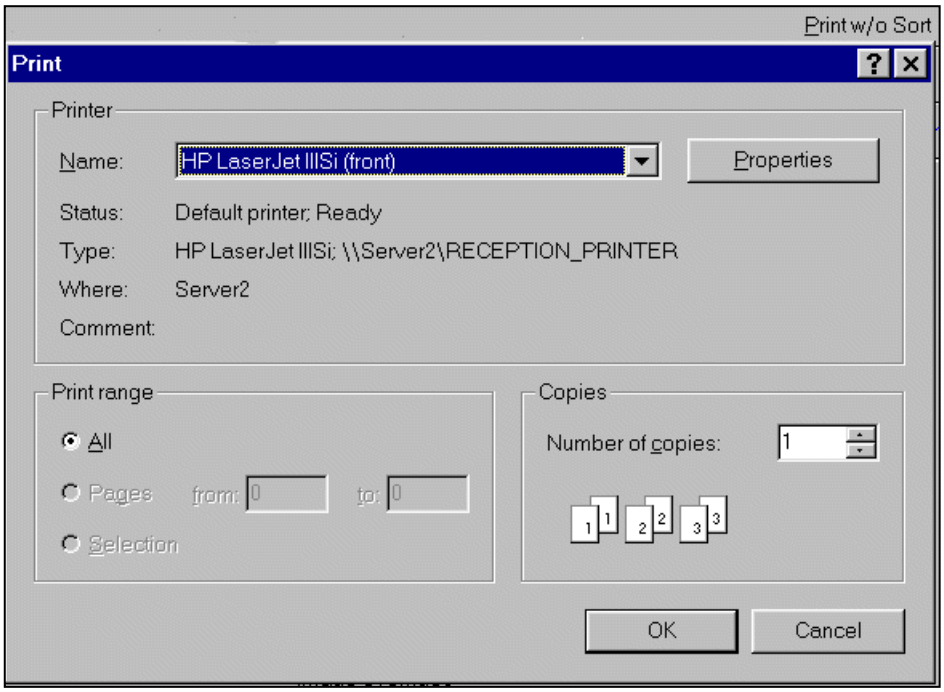



**Figure 5-24: Print Box.**

Figure 5-24 shows the **Print** instruction box. You may change the printer, its properties or the number of copies desired.

# I. Printing a Model Summary

To print the entire data set from your model, click on the pull-down menu **File/Print All Input**. All folders' data will now be printed.

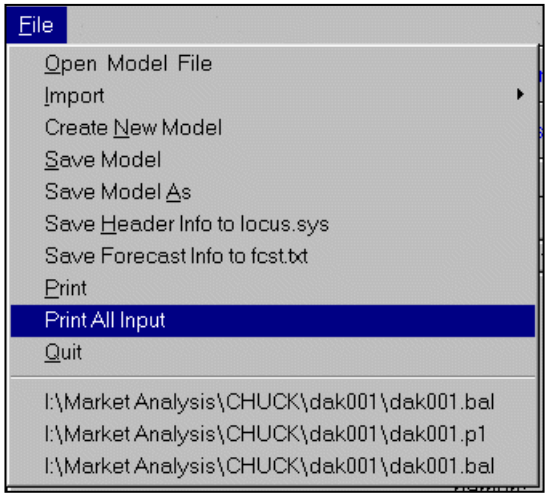



**Figure 5-25: Printing a Model Summary.**

# J. Correcting Data

Your data entry is now complete. The next step is to verify your data. If you find input errors or inaccuracies, make the appropriate corrections in any of the folders.

# K. Saving Your File

The **File/Save** pull-down menu command allows you to store the contents of the workspace to a specified file. Whenever you have entered data into your model or made changes to it, you will want to save it before you quit your LOCUS™ Pro session.

To save your file, select the **File/Save** pull-down menu. Enter the name of the file you want to save, including the path, if necessary. Add any extension characters that you want to use in the file name. For example, to save a file named MIDLAND.BAL in the LOCUS™ Pro directory, which is in the "C" drive, type:

*C:\LOCUS Pro\MIDLAND.BAL*

and press **Enter**.

In LOCUS™ Pro **Balance**, if you do not enter an extension, a *.bal extension is automatically assigned to your preliminary model.

# Chapter 6
# Balancing the Model

Up to this point, you have built and verified a preliminary model. You are ready to examine this preliminary model to see what needs to be done to make it reflect the conditions you observed in your trade area.

You may need to alter the model's draw, curve, radius and/or add other subjective parameters to make the model more accurately represent your marketplace. This process is called "balancing" the model.

As LOCUS™ Pro is a spreadsheet format, you will find the ease of balancing a definite time saver.

## A. Establishing the Trade Area Float

Float, as previously defined, is the amount of potential not being captured by the facilities defined in this model, or

**Float = Potential- Σ(Facility Volume x Draw)**

where *Potential* is defined as the *summation of Population x PCE* for the sectors, and Σ is the *sum of each facility volume times its draw*.

To determine whether the correct amount of float has been designated for the trade area, click on the **Market Totals** folder to view the float for the entire marketplace (as well as additional model data).

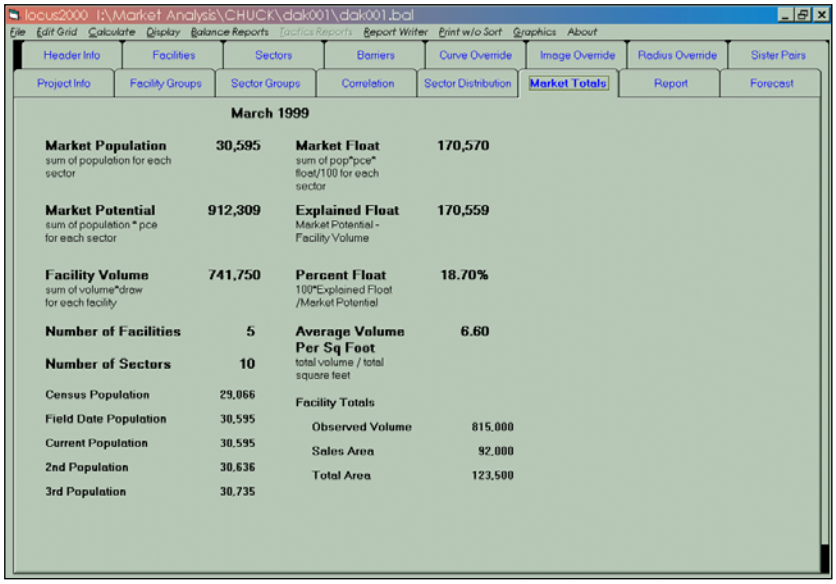



**Figure 6-1: Market Totals Folder.**

### 1. Printing Market Totals

If you desire a print out of the **Market Totals** folder, click on the pull-down menu **Print w/o Sort** and the entire folder is printed.

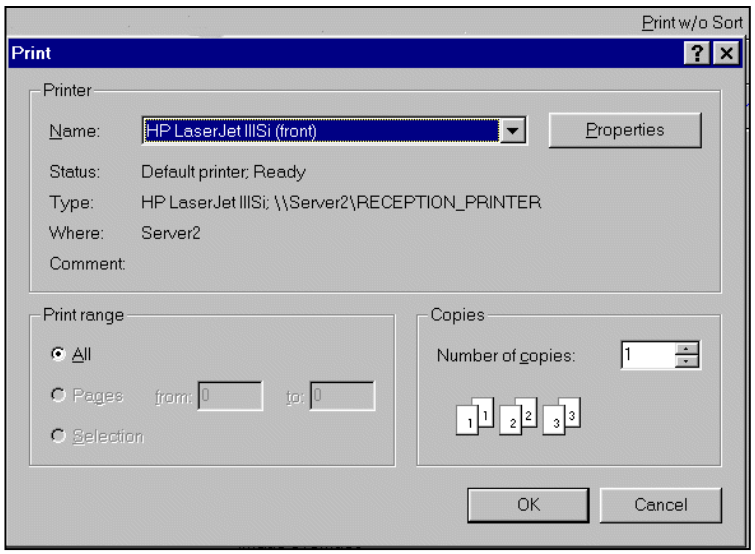



**Figure 6-2: Print w/o Sort.**

Evaluate the current model's total float amount and percent. If the float for the model is acceptable, you can proceed to Step 4, *Balancing Float by Sector*.

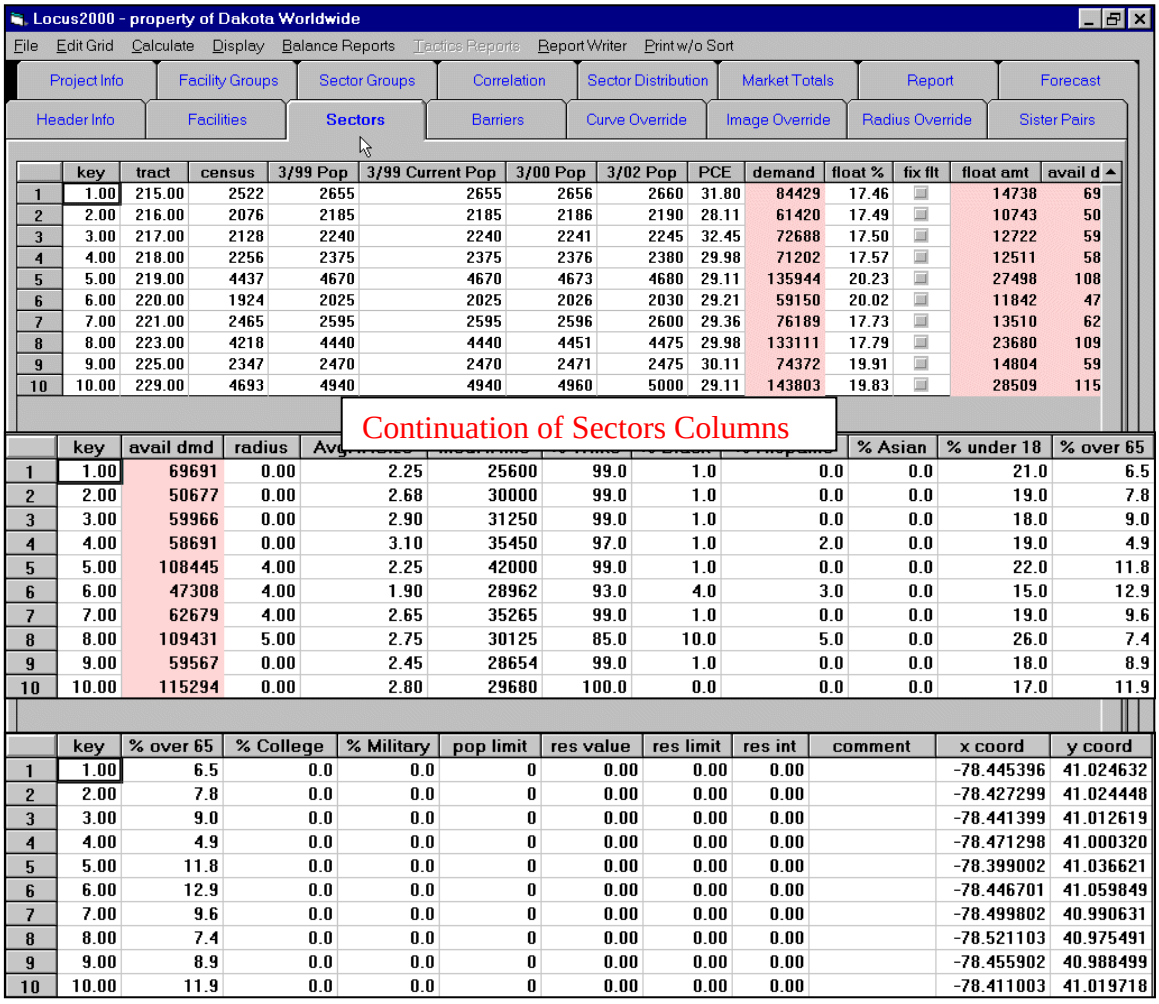
If the float needs to be adjusted, you can alter it by updating the draw, volume, PCE or population as necessary.

### 2. Updating Facility Data

Select the **Facilities** folder and the entire facility database is available for your adjustment. Change desired data.

### 3. Updating Sector Data

To change any sector data, select the **Sectors** folder and all of the sectors database is available for your adjustment. Change desired data.




| | key | tract | census | 3/99 Pop | 3/99 Current Pop | 3/00 Pop | 3/02 Pop | PCE | demand | float % | fix flt | float amt | avail d |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 215.00 | 2522 | 2655 | 2655 | 2656 | 2660 | 31.80 | 84429 | 17.46 | | 14738 | 69 |
| 2 | 2.00 | 216.00 | 2076 | 2185 | 2185 | 2186 | 2190 | 28.11 | 61420 | 17.49 | | 10743 | 50 |
| 3 | 3.00 | 217.00 | 2128 | 2240 | 2240 | 2241 | 2245 | 32.45 | 72688 | 17.50 | | 12722 | 59 |
| 4 | 4.00 | 218.00 | 2256 | 2375 | 2375 | 2376 | 2380 | 29.98 | 71202 | 17.57 | | 12511 | 58 |
| 5 | 5.00 | 219.00 | 4437 | 4670 | 4670 | 4673 | 4680 | 29.11 | 135944 | 20.23 | | 27498 | 108 |
| 6 | 6.00 | 220.00 | 1924 | 2025 | 2025 | 2026 | 2030 | 29.21 | 59150 | 20.02 | | 11842 | 47 |
| 7 | 7.00 | 221.00 | 2465 | 2595 | 2595 | 2596 | 2600 | 29.36 | 76189 | 17.73 | | 13510 | 62 |
| 8 | 8.00 | 223.00 | 4218 | 4440 | 4440 | 4451 | 4475 | 29.98 | 133111 | 17.79 | | 23680 | 109 |
| 9 | 9.00 | 225.00 | 2347 | 2470 | 2470 | 2471 | 2475 | 30.11 | 74372 | 19.91 | | 14804 | 59 |
| 10 | 10.00 | 229.00 | 4693 | 4940 | 4940 | 4960 | 5000 | 29.11 | 143803 | 19.83 | | 28509 | 115 |

| | key | avail dmd | radius | Avg | | | | | % Asian | % under 18 | % over 65 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 69691 | 0.00 | 2.25 | 25600 | 99.0 | 1.0 | 0.0 | 0.0 | 21.0 | 6.5 |
| 2 | 2.00 | 50677 | 0.00 | 2.68 | 30000 | 99.0 | 1.0 | 0.0 | 0.0 | 19.0 | 7.8 |
| 3 | 3.00 | 59966 | 0.00 | 2.90 | 31250 | 99.0 | 1.0 | 0.0 | 0.0 | 18.0 | 9.0 |
| 4 | 4.00 | 58691 | 0.00 | 3.10 | 35450 | 97.0 | 1.0 | 2.0 | 0.0 | 19.0 | 4.9 |
| 5 | 5.00 | 108445 | 4.00 | 2.25 | 42000 | 99.0 | 1.0 | 0.0 | 0.0 | 22.0 | 11.8 |
| 6 | 6.00 | 47308 | 4.00 | 1.90 | 28962 | 93.0 | 4.0 | 3.0 | 0.0 | 15.0 | 12.9 |
| 7 | 7.00 | 62679 | 4.00 | 2.65 | 35265 | 99.0 | 1.0 | 0.0 | 0.0 | 19.0 | 9.6 |
| 8 | 8.00 | 109431 | 5.00 | 2.75 | 30125 | 85.0 | 10.0 | 5.0 | 0.0 | 26.0 | 7.4 |
| 9 | 9.00 | 59567 | 0.00 | 2.45 | 28654 | 99.0 | 1.0 | 0.0 | 0.0 | 18.0 | 8.9 |
| 10 | 10.00 | 115294 | 0.00 | 2.80 | 29680 | 100.0 | 0.0 | 0.0 | 0.0 | 17.0 | 11.9 |

| | key | % over 65 | % College | % Military | pop limit | res value | res limit | res int | comment | x coord | y coord |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 6.5 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.445396 | 41.024632 |
| 2 | 2.00 | 7.8 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.427299 | 41.024448 |
| 3 | 3.00 | 9.0 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.441399 | 41.012619 |
| 4 | 4.00 | 4.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.471298 | 41.000320 |
| 5 | 5.00 | 11.8 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.399002 | 41.036621 |
| 6 | 6.00 | 12.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.446701 | 41.059849 |
| 7 | 7.00 | 9.6 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.499802 | 40.990631 |
| 8 | 8.00 | 7.4 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.521103 | 40.975491 |
| 9 | 9.00 | 8.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.455902 | 40.988499 |
| 10 | 10.00 | 11.9 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0.00 | | -78.411003 | 41.019718 |

**Figure 6-3: Sectors Folder with Sample Data.**

**NOTE:** Verify the updates you have made. For example, to monitor the float for the entire marketplace, click on the **Market Totals** folder.

### 4. Balancing Float By Sector

When the total model float is acceptable, you are ready to have LOCUS™ Pro calculate the initial float percentages for each sector. To do this, select the **Calculate** option from the pull-down menu and highlight **Float**. Figure 6-4 displays the **Calculate/Float** menu.

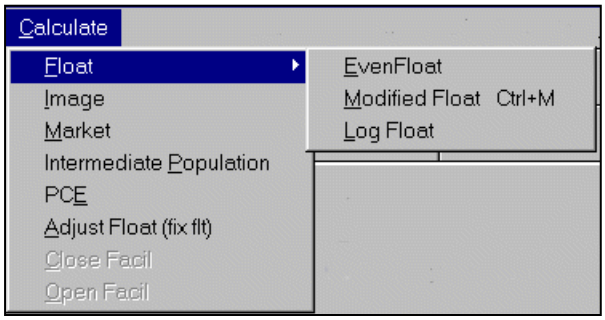



**Figure 6-4: Calculate/Float Menu.**

## 5. Selecting Calculation Method

When you select the **Calculate/Float** option, you can specify one of three methods to calculate the initial float percentages for each sector. The options to calculate float are:

**Even**

Use this option to have LOCUS™ Pro assign an equal float percentage to every sector.

**Modified**

Use this option to have LOCUS™ Pro assign float percentages based on the distance between a sector and the facility nearest to that sector. The greater the distance between a sector and its closest facility, the greater the float assigned to that sector.

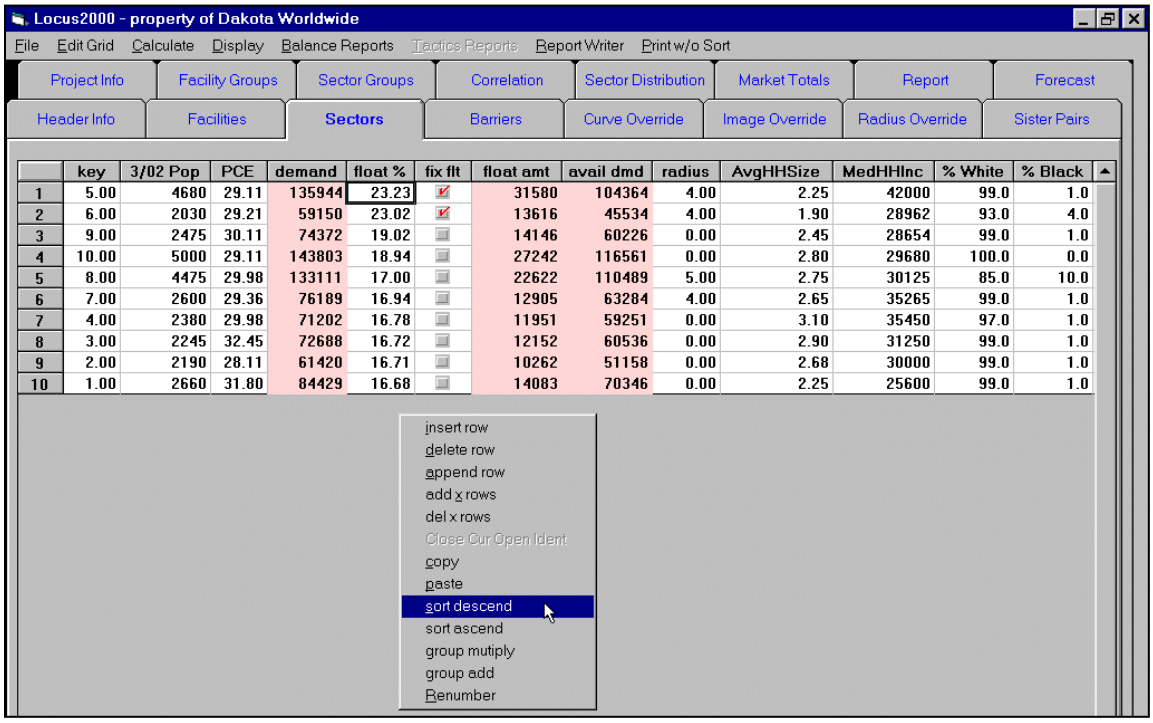
**Log**

Use this option to have LOCUS™ Pro assign float based on the amount of pulling power exerted on a sector by all facilities in the trade area. Sectors feeling the greatest amount of pulling power from the facilities in the trade area will have the least amount of float assigned.

Whenever you add, delete or otherwise change information for your model during the balancing process, you must run the **Calculate/Adjust Float** command to redistribute the float.

Now review the float percentages for each sector in the **Sectors** folder. You may sort sectors' float percentages in ascending or descending order; click on the top of the column titled **float %**, right click and select **sort descend**.

**Figure 6-5: Float Percentages in the Sectors Folder.**




| | key | 3/02 Pop | PCE | demand | float % | fix flt | float amt | avail dmd | radius | AvgHHSize | MedHHInc | % White | % Black |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.00 | 4680 | 29.11 | 135944 | 23.23 | ☑ | 31580 | 104364 | 4.00 | 2.25 | 42000 | 99.0 | 1.0 |
| 2 | 6.00 | 2030 | 29.21 | 59150 | 23.02 | ☑ | 13616 | 45534 | 4.00 | 1.90 | 28962 | 93.0 | 4.0 |
| 3 | 9.00 | 2475 | 30.11 | 74372 | 19.02 | ☐ | 14146 | 60226 | 0.00 | 2.45 | 28654 | 99.0 | 1.0 |
| 4 | 10.00 | 5000 | 29.11 | 143803 | 18.94 | ☐ | 27242 | 116561 | 0.00 | 2.80 | 29680 | 100.0 | 0.0 |
| 5 | 8.00 | 4475 | 29.98 | 133111 | 17.00 | ☐ | 22622 | 110489 | 5.00 | 2.75 | 30125 | 85.0 | 10.0 |
| 6 | 7.00 | 2600 | 29.36 | 76189 | 16.94 | ☐ | 12905 | 63284 | 4.00 | 2.65 | 35265 | 99.0 | 1.0 |
| 7 | 4.00 | 2380 | 29.98 | 71202 | 16.78 | ☐ | 11951 | 59251 | 0.00 | 3.10 | 35450 | 97.0 | 1.0 |
| 8 | 3.00 | 2245 | 32.45 | 72688 | 16.72 | ☐ | 12152 | 60536 | 0.00 | 2.90 | 31250 | 99.0 | 1.0 |
| 9 | 2.00 | 2190 | 28.11 | 61420 | 16.71 | ☐ | 10262 | 51158 | 0.00 | 2.68 | 30000 | 99.0 | 1.0 |
| 10 | 1.00 | 2660 | 31.80 | 84429 | 16.68 | ☐ | 14083 | 70346 | 0.00 | 2.25 | 25600 | 99.0 | 1.0 |

The sectors are aligned in this order. If the float distribution is acceptable, go to the next step, calculating the image.

**NOTE:** If the float distribution is not acceptable, you have two options:

- Use one of the other **Calculate/Float** options, or
- Manually update the sector float.

You can continue to do this until the float is acceptable.

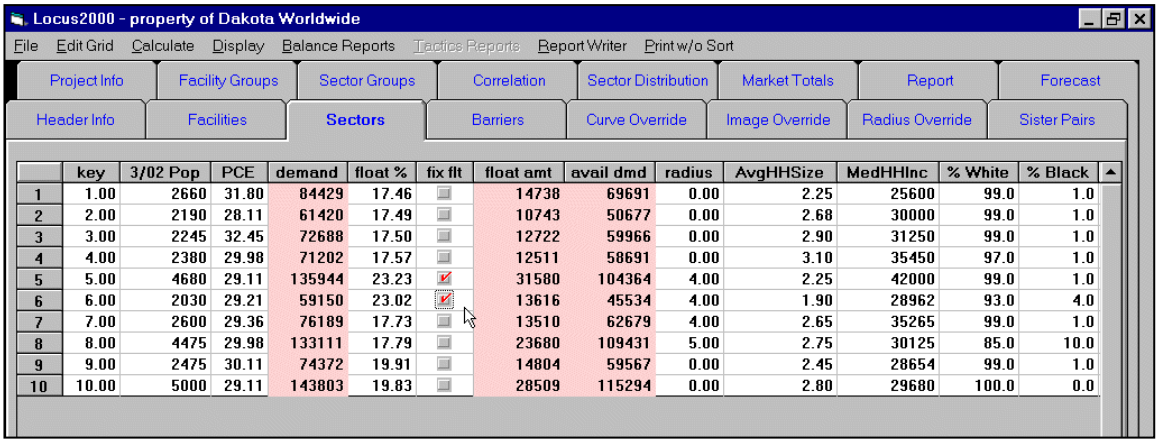
**NOTE:** If you have manually updated float for one or more sectors, do not use the **Calculate/Float** command because it will override your manual updates.

### 6. Updating Float for Individual Sectors

If none of the **Calculate/Float** commands accurately simulates the float distribution, you can manually adjust the float. Type in desired float percentage, make the check mark appear in the **fix flt** column and, using the pull-down menu, calculate and adjust float.

Enter the percent of the sector's potential that will be assigned to float. The percentage needs to be a number between 1 and 100% (*i.e.*, use 10.0 for ten percent, not 10% or .10).

**NOTE:** The program adjusts float slightly so that you will not see the exact number you entered. You cannot use the **Calculate/Float** command again, or you will redistribute the float only. Adjust the float (use **fix flt**) instead. [DO THIS EACH TIME YOU CHANGE THE DRAW OR VOLUME OF A STORE.]




| | key | 3/02 Pop | PCE | demand | float % | fix flt | float amt | avail dmd | radius | AvgHHSize | MedHHInc | % White | % Black |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | 2660 | 31.80 | 84429 | 17.46 | ☐ | 14738 | 69691 | 0.00 | 2.25 | 25600 | 99.0 | 1.0 |
| 2 | 2.00 | 2190 | 28.11 | 61420 | 17.49 | ☐ | 10743 | 50677 | 0.00 | 2.68 | 30000 | 99.0 | 1.0 |
| 3 | 3.00 | 2245 | 32.45 | 72688 | 17.50 | ☐ | 12722 | 59966 | 0.00 | 2.90 | 31250 | 99.0 | 1.0 |
| 4 | 4.00 | 2380 | 29.98 | 71202 | 17.57 | ☐ | 12511 | 58691 | 0.00 | 3.10 | 35450 | 97.0 | 1.0 |
| 5 | 5.00 | 4680 | 29.11 | 135944 | 23.23 | ☑ | 31580 | 104364 | 4.00 | 2.25 | 42000 | 99.0 | 1.0 |
| 6 | 6.00 | 2030 | 29.21 | 59150 | 23.02 | ☑ | 13616 | 45534 | 4.00 | 1.90 | 28962 | 93.0 | 4.0 |
| 7 | 7.00 | 2600 | 29.36 | 76189 | 17.73 | ☐ | 13510 | 62679 | 4.00 | 2.65 | 35265 | 99.0 | 1.0 |
| 8 | 8.00 | 4475 | 29.98 | 133111 | 17.79 | ☐ | 23680 | 109431 | 5.00 | 2.75 | 30125 | 85.0 | 10.0 |
| 9 | 9.00 | 2475 | 30.11 | 74372 | 19.91 | ☐ | 14804 | 59567 | 0.00 | 2.45 | 28654 | 99.0 | 1.0 |
| 10 | 10.00 | 5000 | 29.11 | 143803 | 19.83 | ☐ | 28509 | 115294 | 0.00 | 2.80 | 29680 | 100.0 | 0.0 |

**Figure 6-6: Adjusting the Float, Part 1.**

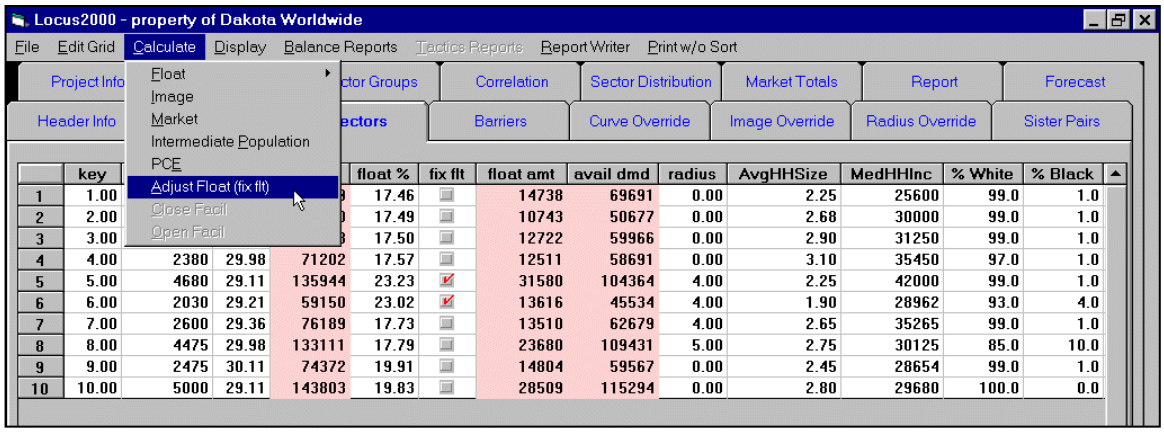



**Figure 6-7: Adjusting the Float, Part 2.**

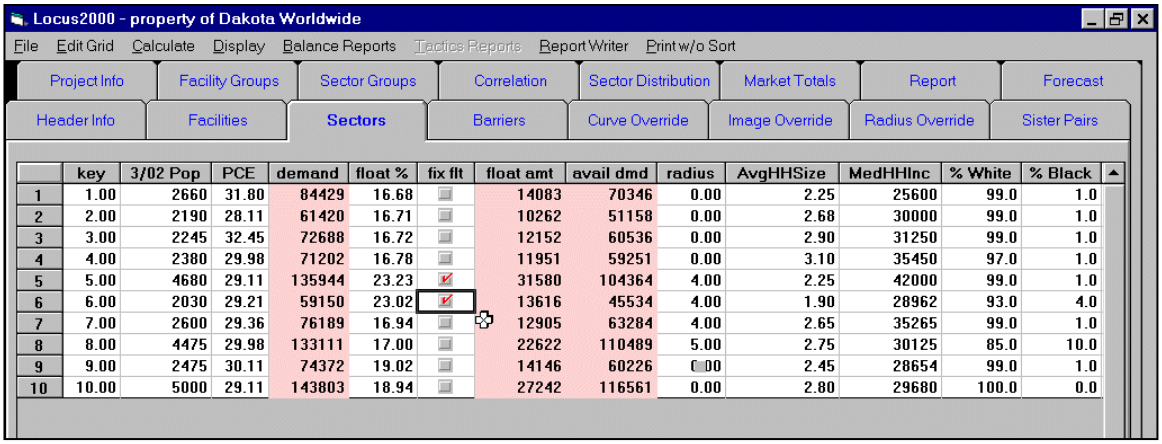



**Figure 6-8: Adjusting the Float, Part 3.**

After you are satisfied that the float is accurate for the entire model and for each sector, use the pull-down menu **Calculate/Image** to calculate the image for each facility.

> **NOTE:** If at some point you change the components of float (population, PCE and so on), you should re-evaluate the model and/or individual float.

## 7. Calculating Image

Next, you must perform a **Calculate Image** operation to rank the facilities. Select **Calculate/Image** from the pull-down menu.

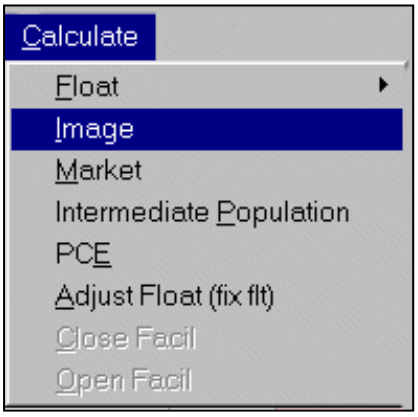



**Figure 6-9: Calculating Image.**

You may now view the calculated image results in the **Facilities** folder. Examine this report to decide:

- If the facility images correspond to your impressions of what is occurring in the marketplace.
- How the facility's image compares with other facilities in the model.
- If the facility's image is too high or too low.

**The Function Key [F1] also calculates IMAGE**

If the image is acceptable, go to Step 11, *Evaluating Market Share*.

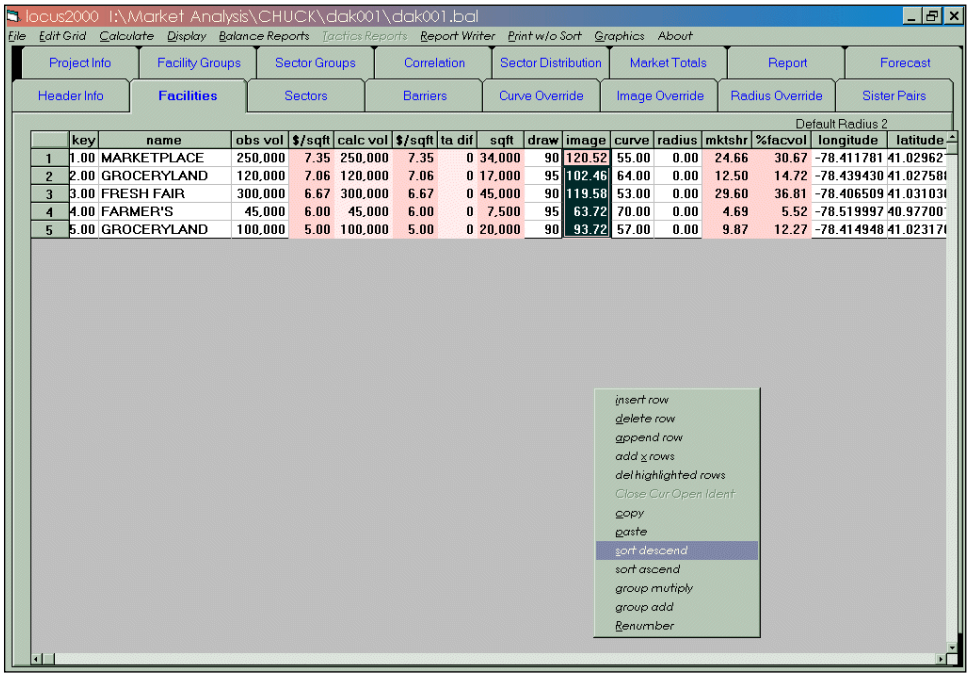
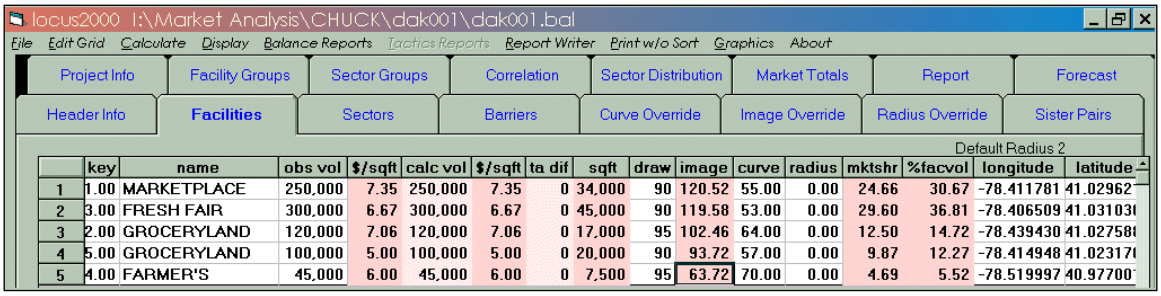



**Figure 6-10: Sorting Images in Descending Order.**




| | key | name | obs vol | $/sqft | calc vol | $/sqft | ta dif | sqft | draw | image | curve | radius | mktshr | %facvol | longitude | latitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 250,000 | 7.35 | 250,000 | 7.35 | 0 | 34,000 | 90 | 120.52 | 55.00 | 0.00 | 24.66 | 30.67 | -78.411781 | 41.02962 |
| 2 | 3.00 | FRESH FAIR | 300,000 | 6.67 | 300,000 | 6.67 | 0 | 45,000 | 90 | 119.58 | 53.00 | 0.00 | 29.60 | 36.81 | -78.406509 | 41.03103 |
| 3 | 2.00 | GROCERYLAND | 120,000 | 7.06 | 120,000 | 7.06 | 0 | 17,000 | 95 | 102.46 | 64.00 | 0.00 | 12.50 | 14.72 | -78.439430 | 41.02758 |
| 4 | 5.00 | GROCERYLAND | 100,000 | 5.00 | 100,000 | 5.00 | 0 | 20,000 | 90 | 93.72 | 57.00 | 0.00 | 9.87 | 12.27 | -78.414948 | 41.02317 |
| 5 | 4.00 | FARMER'S | 45,000 | 6.00 | 45,000 | 6.00 | 0 | 7,500 | 95 | 63.72 | 70.00 | 0.00 | 4.69 | 5.52 | -78.519997 | 40.97700 |

**Figure 6-11: Examining the Calculated Image in Descending Order.**

If the image is not acceptable, you will need to make one of the following adjustments.

**Increase the image by:**

- *Increasing the curve of the facility* - this "tightens" the market share distribution.
- *Increasing the draw of the facility* - this increases the total market share of the facility in the trade area.
- *Increasing the float of the nearby sectors* - this reduces the available demand immediately surrounding the facility.
- *Decreasing the radius of the nearby sectors* - this "tightens" the market share distribution.
- *Decreasing the expenditure of the nearby sectors* - this reduces the available demand immediately surrounding the facility.
- *Decreasing the size of the facility* - this reduces the base strength of the facility.
- *Decreasing the population of the nearby sectors* - this reduces the available demand immediately surrounding the facility.

**Decrease the image by:**

- *Decreasing the curve of the facility* - this "flattens" the market share distribution.
- *Decreasing the draw of the facility* - this decreases the total market share of the facility in the trade area.
- *Decreasing the float of the nearby sectors* - this increases the available demand immediately surrounding the facility.
- *Increasing the radius of the nearby sectors* - this "flattens" the market share distribution.
- *Increasing the expenditure of the nearby sectors* - this increases the available demand immediately surrounding the facility.
- *Increasing the size of the facility* - this increases the base strength of the facility.
- *Increasing the population of the nearby sectors* - this increases the available demand immediately surrounding the facility.

Update the model radius for the entire model. Every model is different, but if you raise the default radius, you will generally "flatten" all the facility market shares. If you lower the default radius, you will "tighten" the market share distribution. Therefore, image allocation will vary depending on the model.

> **NOTE:** If you change the float, expenditure or population variables, you are affecting elements of the sector float. It is good practice to re-evaluate your sector float if you change one or more of these variables when adjusting facility image.

### 8. Updating a Facility's Curve

Altering a facility's curve changes the facility's image and market share distribution. To adjust the curve for a facility, type in desired number in **curve** column.

### 9. Updating a Facility's Radius

Adding an individual radius to a facility or altering an existing facility's radius (like altering the curve) will change the facility's image and market share distribution.

For example, if a facility has a radius of 0.75, the market shares from sectors within a short distance of the facility will be significantly higher than those from the other sectors in the model. If you were to change that facility's radius to 1.50, you would notice that the market shares from sectors within a short distance of the facility would have declined, but market shares from sectors further from the facility would have increased. There would now be a smaller difference between the market shares from sectors close to the facility and those sectors farther away.

You can change the radius for an individual facility by typing in the desired number in the **radius** column. To return an individual facility's radius to the model default value, enter 0 as the update value.

### 10. Changing the Default Model Radius

You can change the model radius value by entering the desired number in the **Header Info** folder.

Changing the model radius will change the radius of all facilities that do not have an individual radius assigned to them. For example, if there are ten facilities in the model and you only specify an individual radius for facilities 1 and 2, the program uses the model radius for the remaining eight (facilities 3 through 10). The individual radius for facilities 1 and 2 will not change.

Whenever you change the model radius, you change the pulling power of those facilities affected, which in turn changes their market share.

### 11. Evaluating Market Share

The next step is to evaluate the market share. You may click on the **Sector Distribution** folder and view results or use the **Display/Market Share** pull-down command and look at the graphic display. Either will let you answer the following questions:

- Does the market share correspond to what you observed in the field?
- How does the market share compare to the other facilities?

If the market share, images and float are acceptable, you have created a balanced model.

If the market share is not acceptable, you will have to restructure your model. Begin the review of your model with the first step discussed in this section, *Establishing the Trade Area Float.*

### 12. Saving The Model

Once you have balanced your model, you should save a copy of your work. To save a model, use the **File/Save Model** pull-down command.

### 13. Advanced Balancing Techniques

You may encounter situations that require additional refining to accurately simulate the marketplace. You may also want to add consumer research information to the model using the correlation function. Adding data to the correlation routine is described in *Chapter 7.* Advanced modeling techniques such as sector reach and curve, radius and image overrides, are discussed in *Chapter 9.*

# B. Display Path Window

The graphics on this and the five following pages show various information available in the **Display/Path** pull-down window.

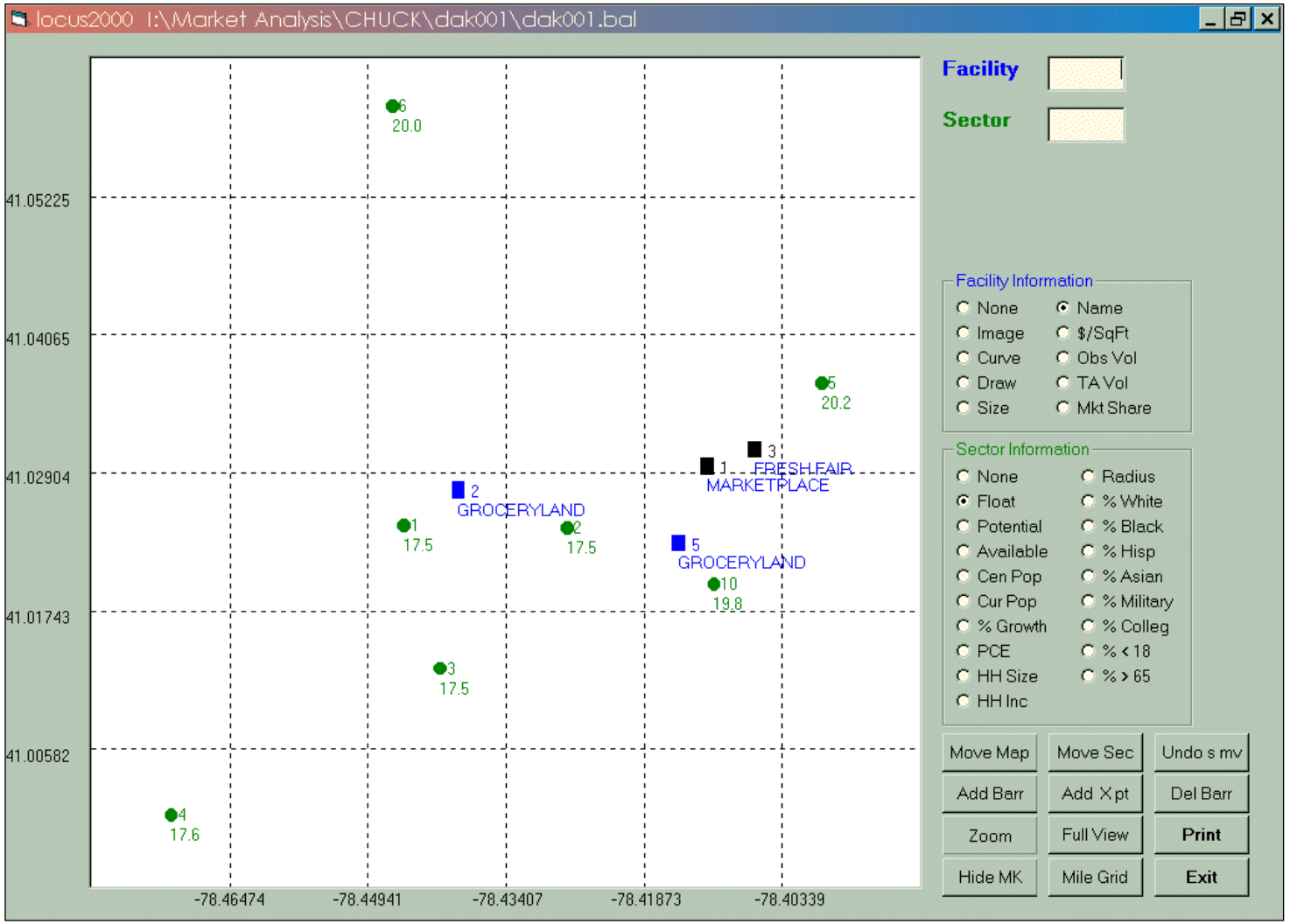



**Figure 6-12: Facility Names and Sector Float.**

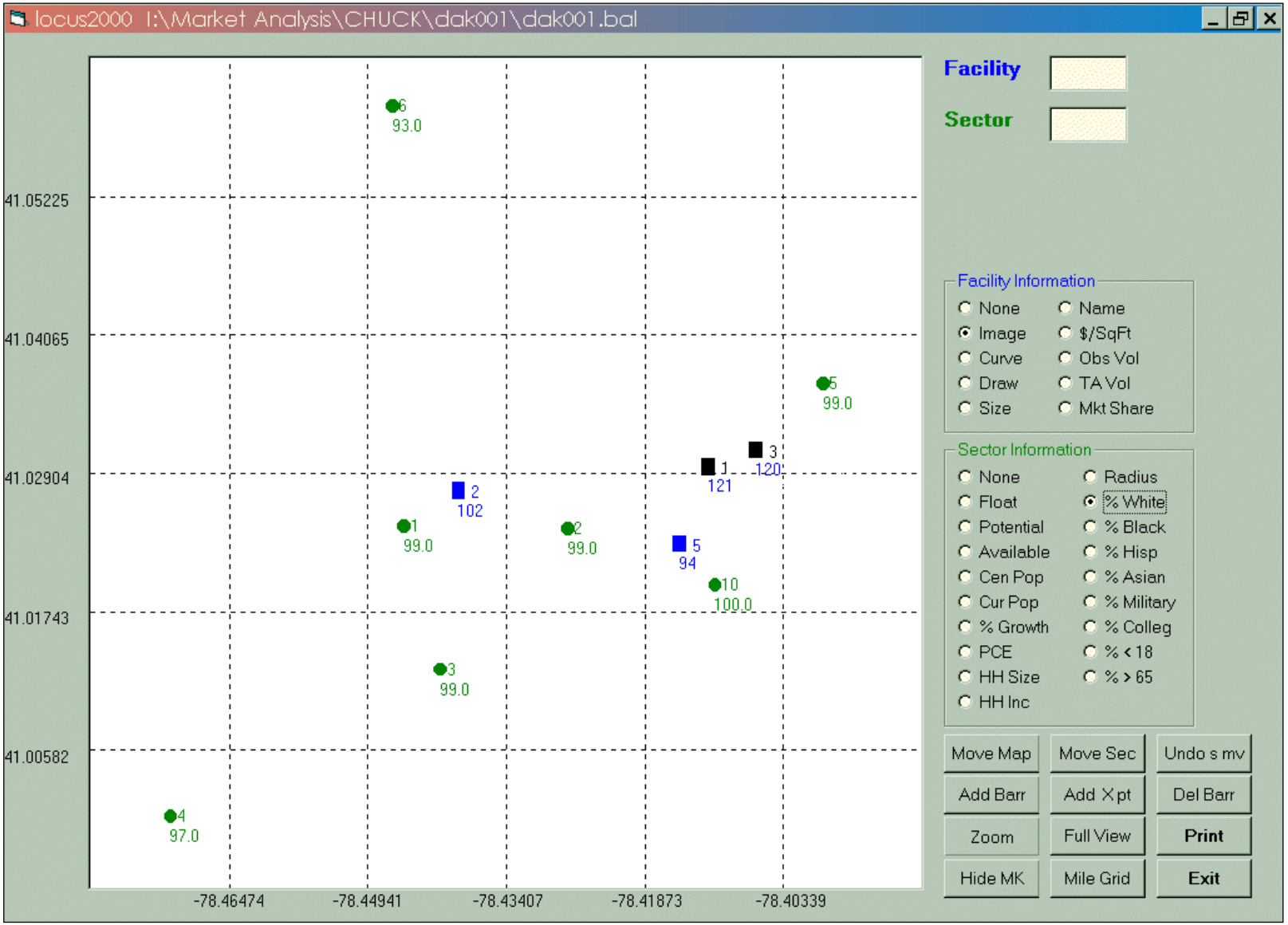



**Figure 6-13: Facility Image and Sector Percent (%) White.**

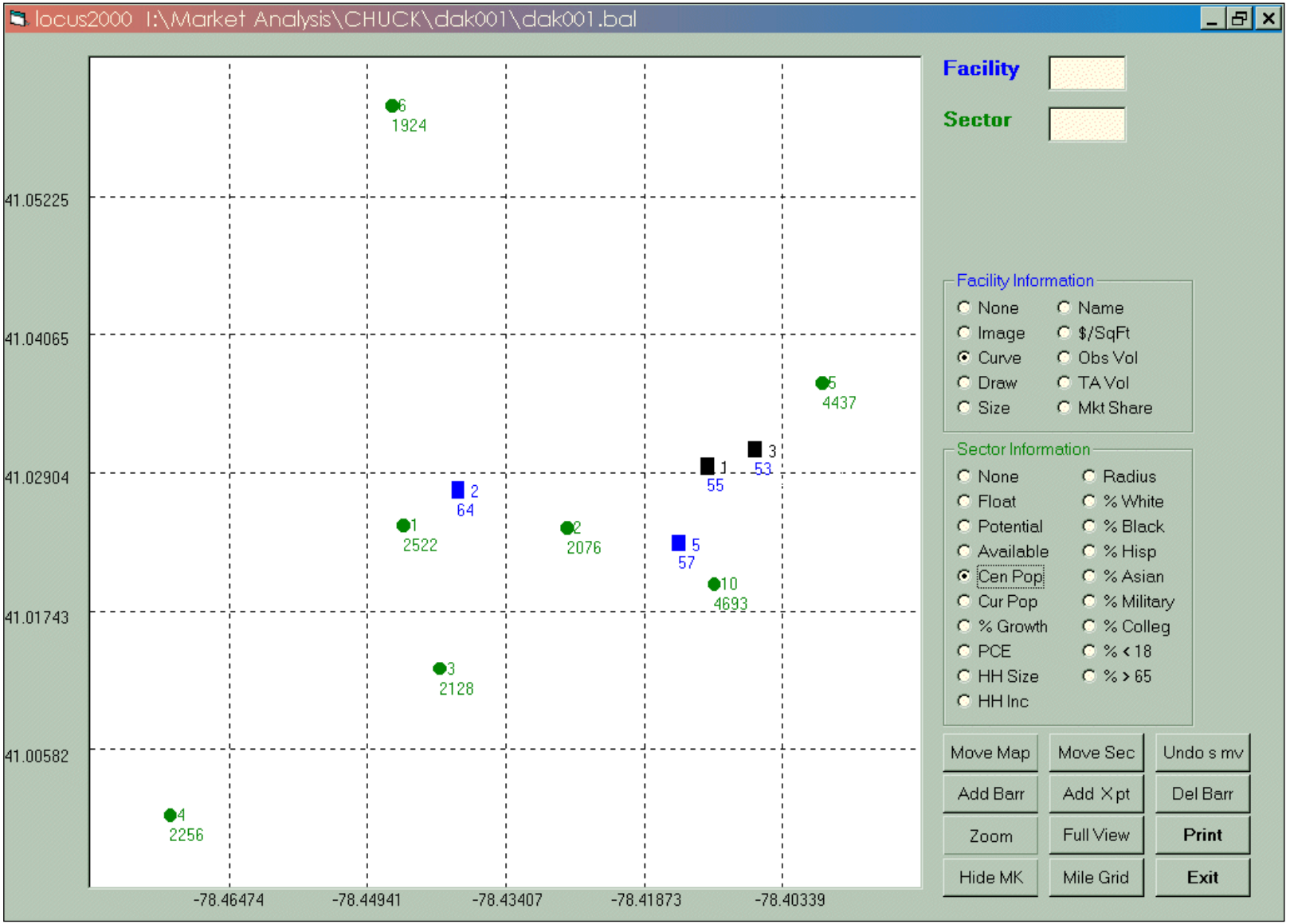



**Figure 6-14: Facility Curve and Sector Census Population.**

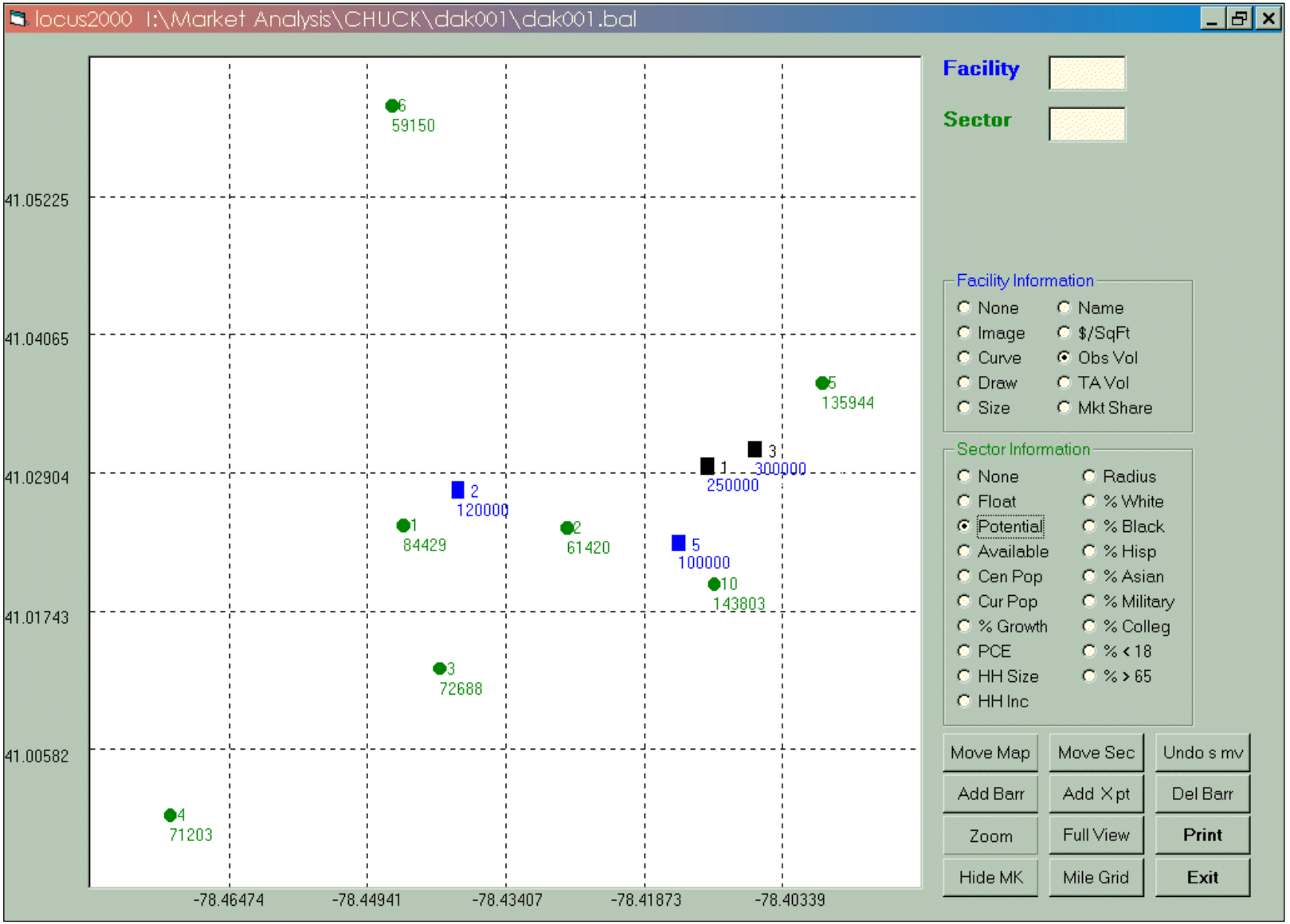



**Figure 6-15: Facility Observed Volume and Sector Potential.**

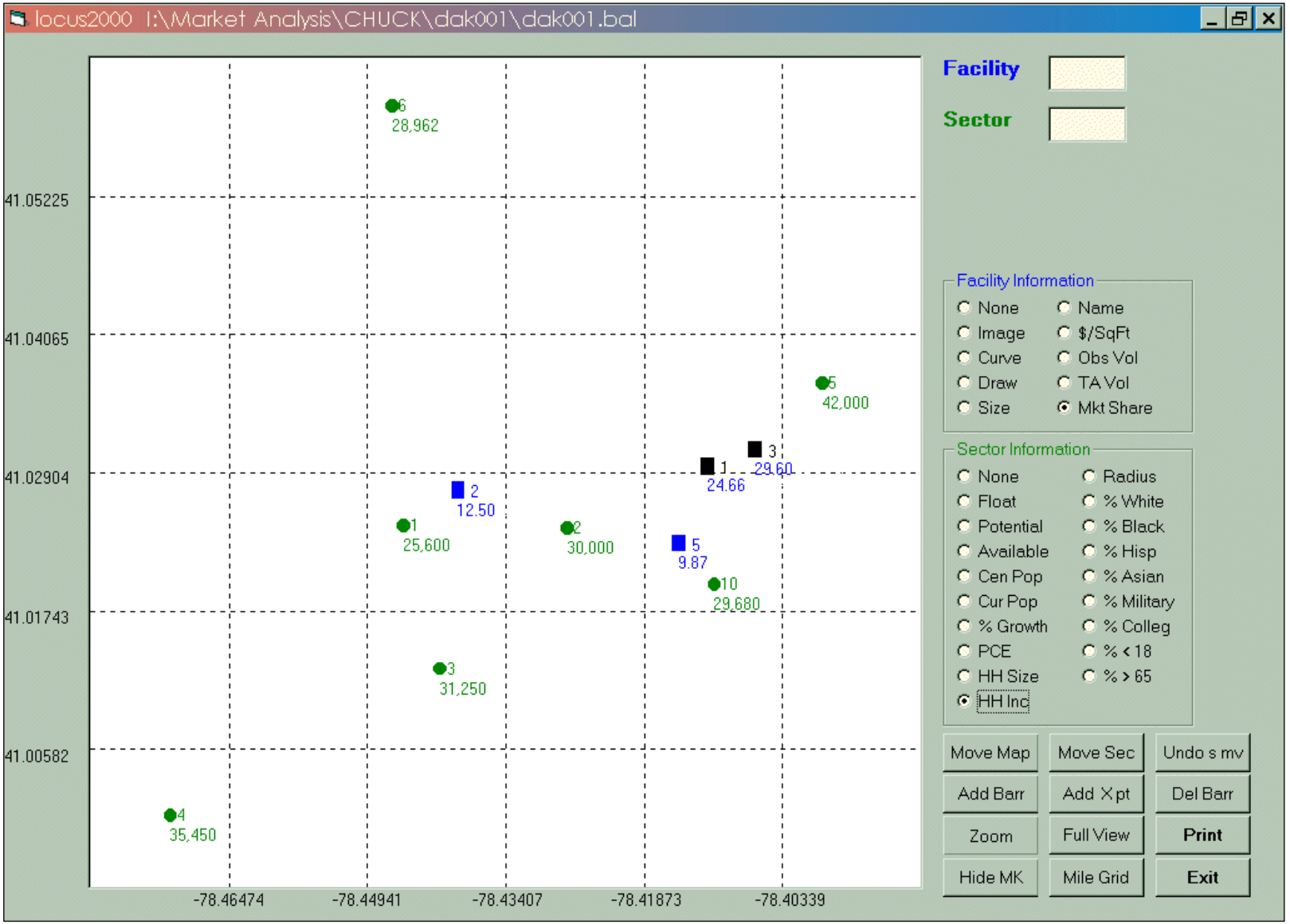



**Figure 6-16: Facility Market Share and Sector Household Income.**

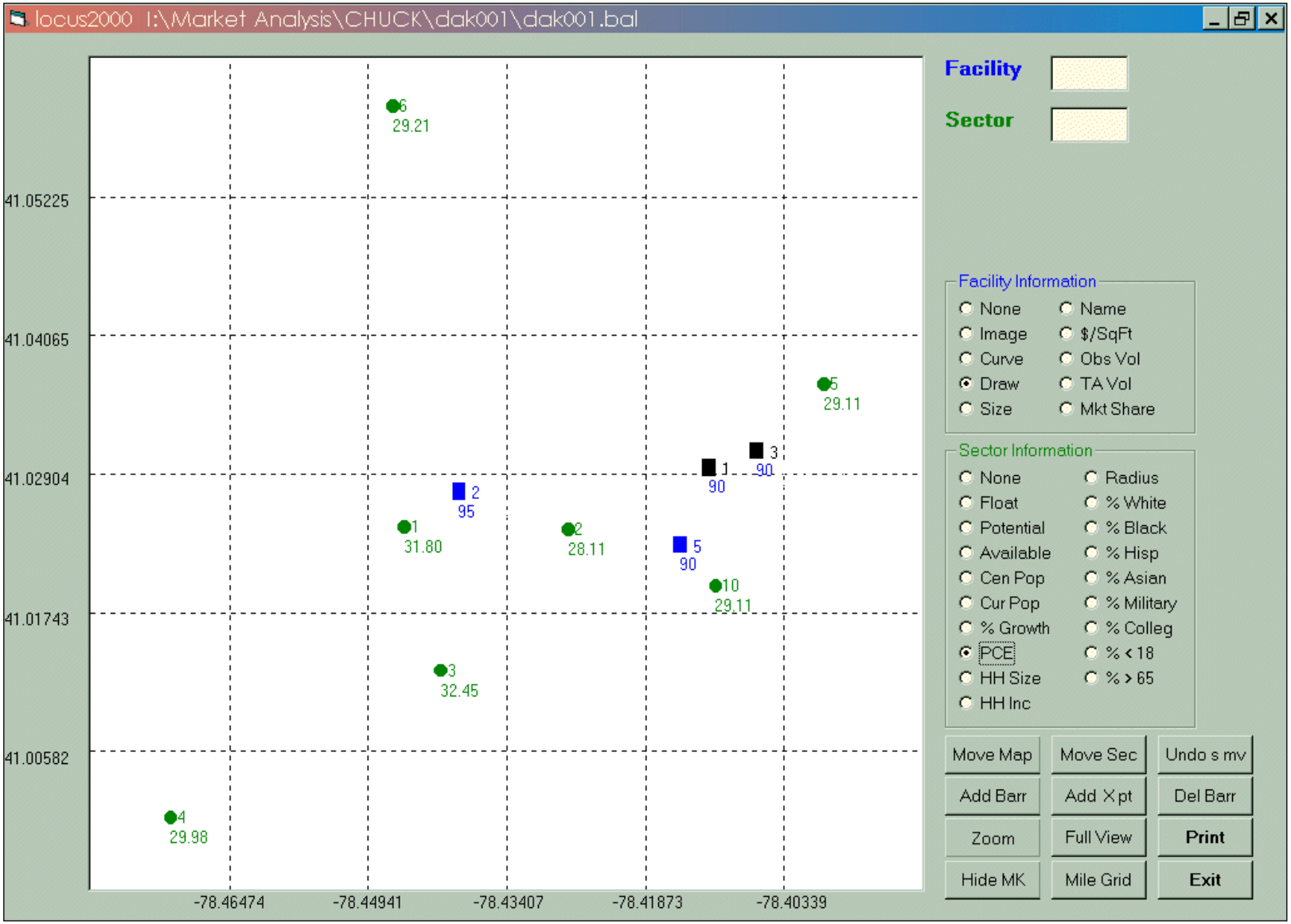



**Figure 6-17: Facility Draw and P.C.E.**

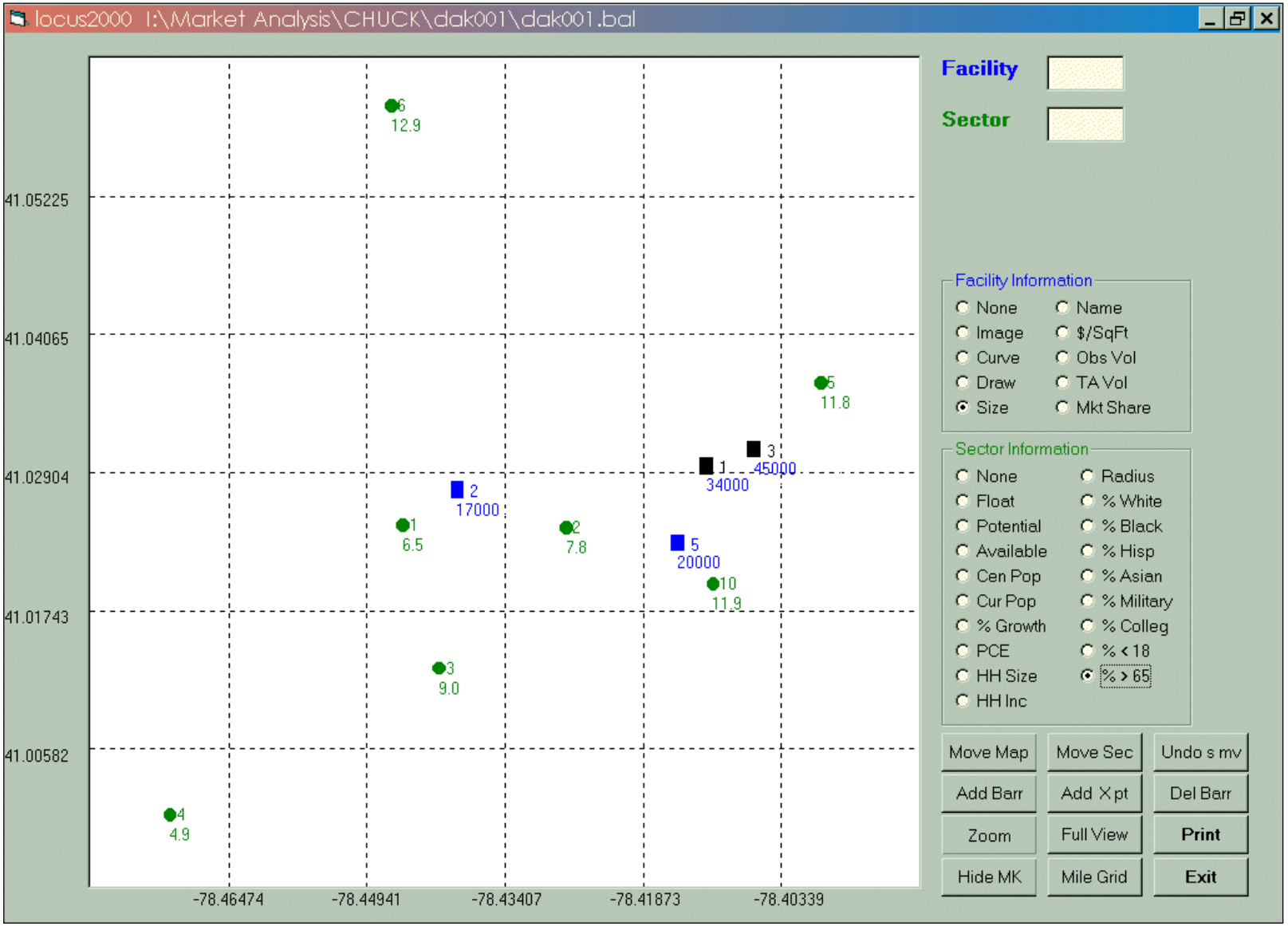



**Figure 6-18: Facility Size and Percent (%) Over 65.**

# C. Display Market Share Window

The graphics on this and the two following pages show various information available in the **Display/ Market Share** pull-down window.

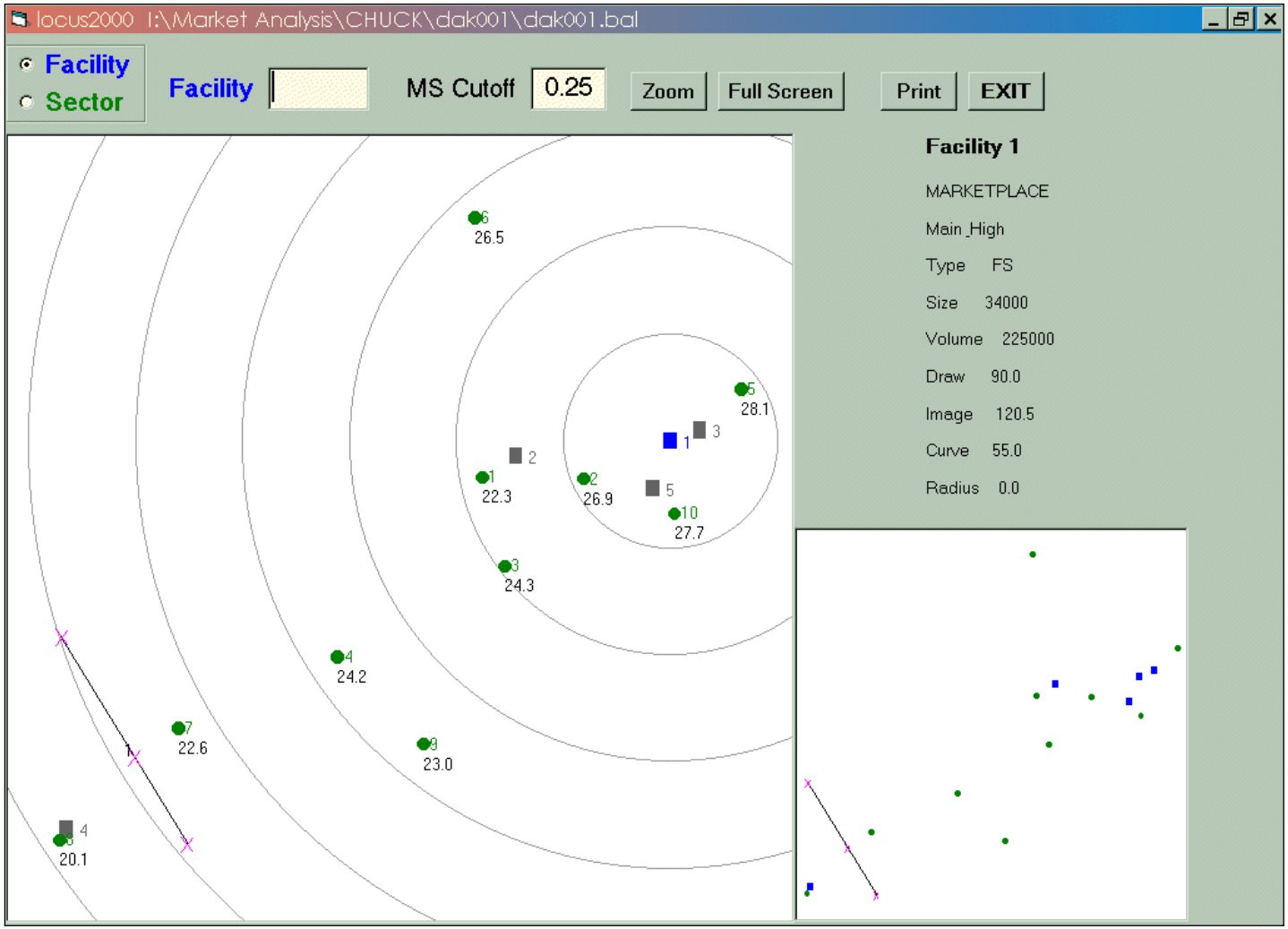



**Figure 6-19: Facility Market Share by Sector Sample.**

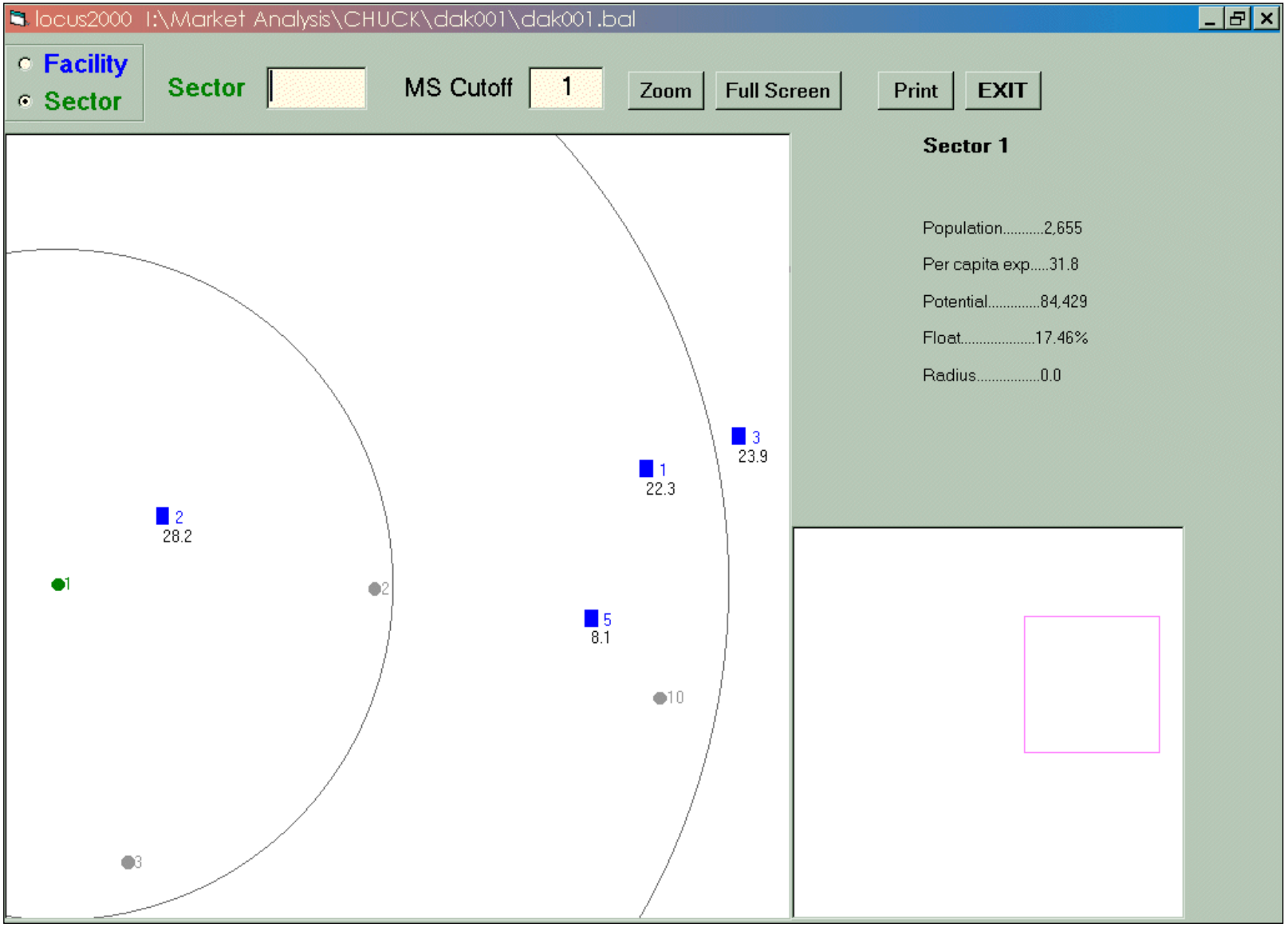



**Figure 6-20: Sector Market Share by Facility Sample.**

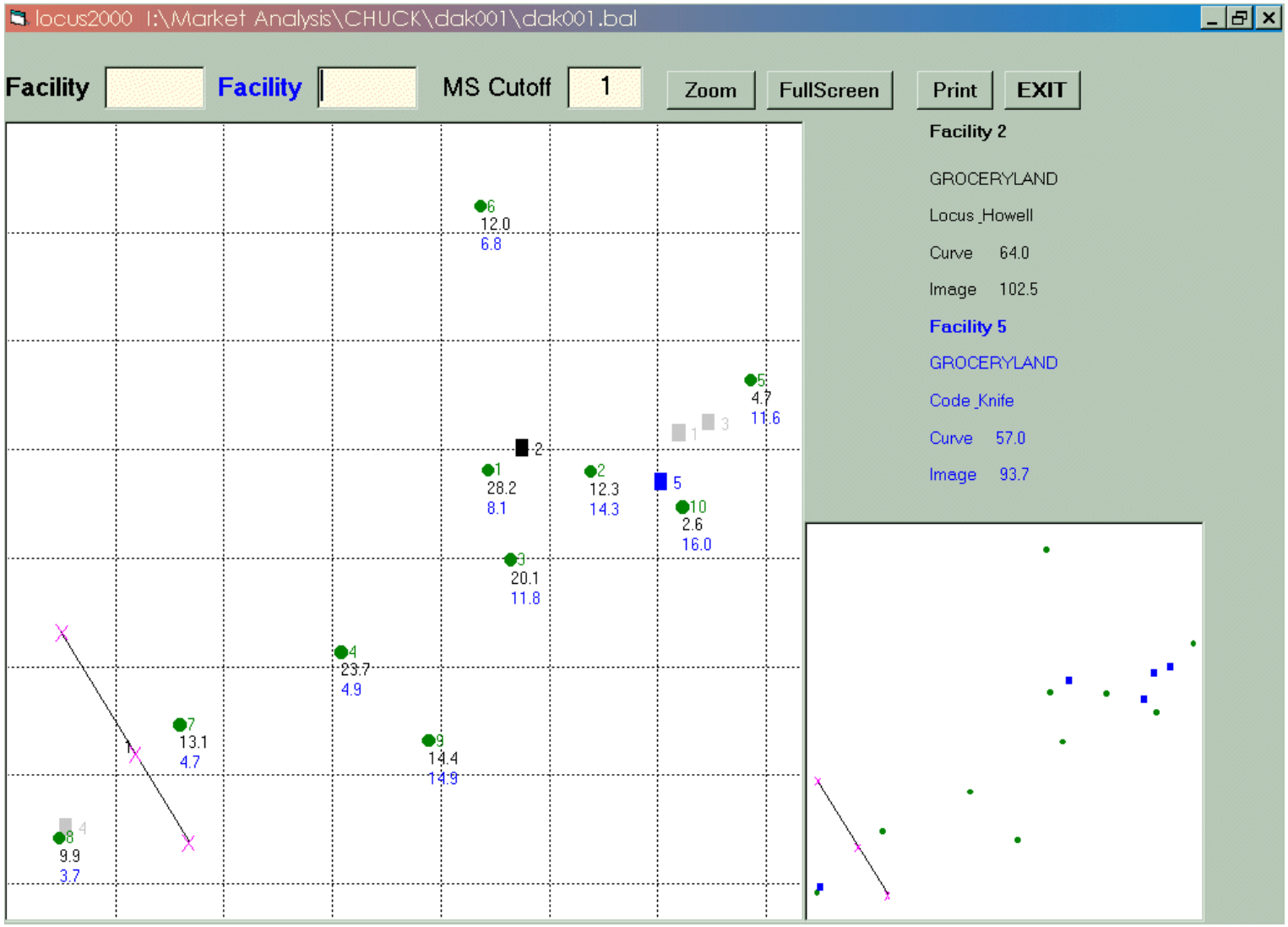



**Figure 6-21: Crossover Market Shares of Two Facilities Sample.**

# D. Report Writer

This replaces the FI file editor and printing function from previous versions of LOCUS™. Click on **Report Writer** and either **Retrieve FI File** or **Start New FI File**.


**Figure 6-22: Starting the Report Writer.**

This is a sample FI file for you to observe.

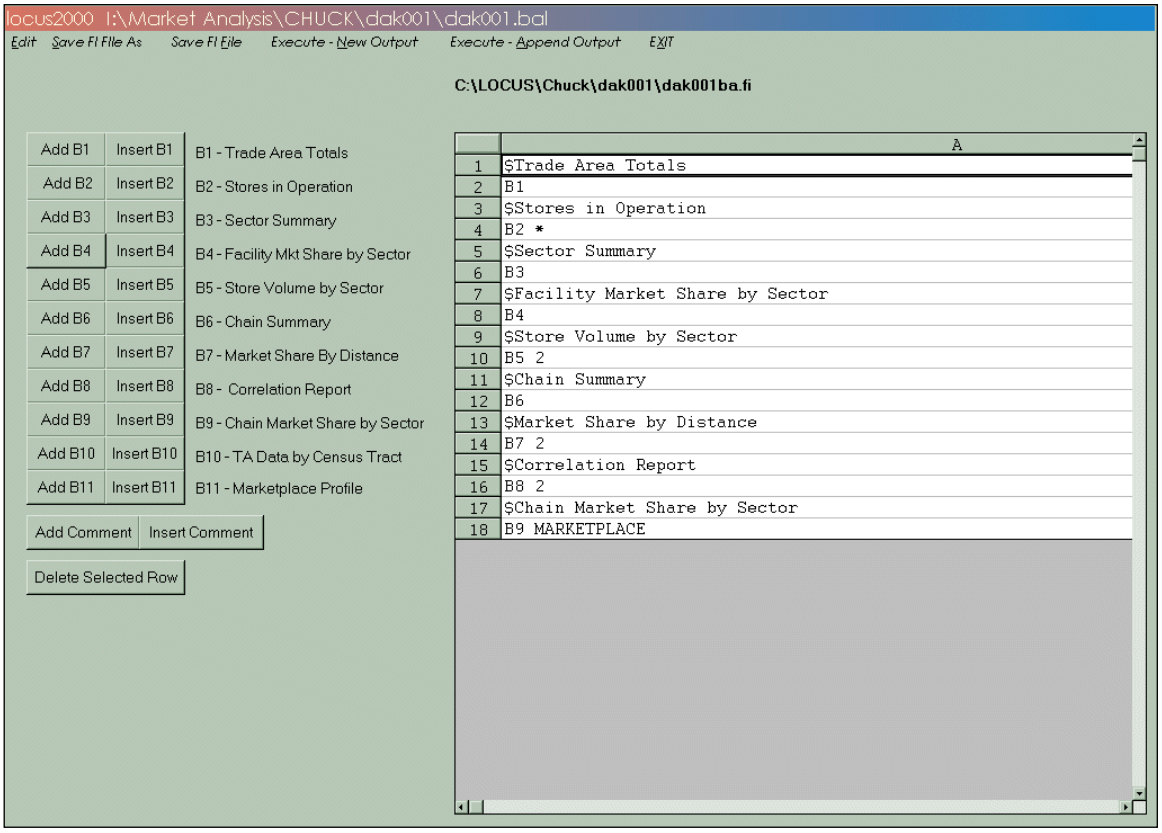



**Figure 6-23: FI Form for Balance Reports.**

This is a new addition to the model. You are in control of what report is requested and in what order it appears. To add comments, click on **Add Comment** and a "$" is added in the row. Type a description for the report (in our example, "Trade Area Totals") as a header, then click **Add B1** (Trade Area Totals). If you wish to place the FI command on top of the comment, choose **Insert B1** (Trade Area Totals). Continue adding desired reports in this fashion.

Once you are done with the Report Writer, select **Save FI File As**, give the Balance FI your model ID code (*i.e., DAK001BA.FI*), and the FI saves.

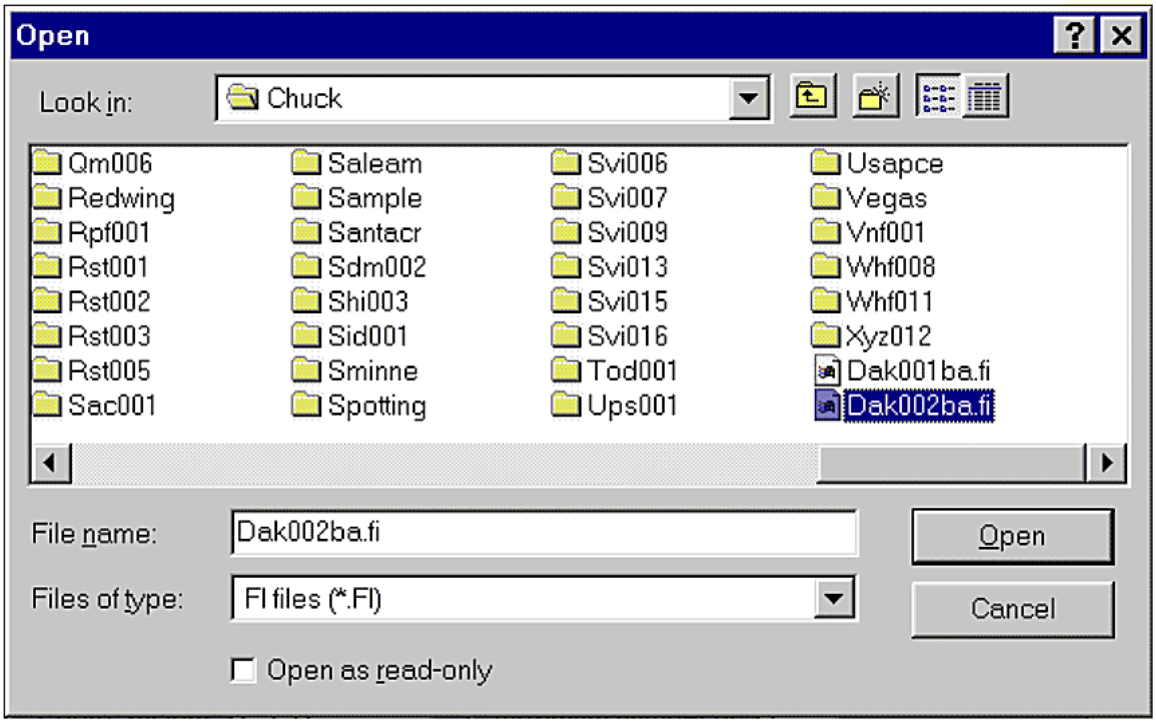



**Figure 6-24: Opening an FI file.**

The next step is to **Execute New Output**. This creates a text file with all your requested computer runs on it. It is recommended you end the file name with br.txt (*i.e., DAK001BR.TXT)*, so as to distinguish it as the balance run versus the projection run, which would be labeled with pr.txt (*i.e., DAK001PR.TXT*). You may use any naming convention, but it must be a *.txt file. These files import into Microsoft Word.

# E. Formatting LOCUS™ Pro Runs in Microsoft Word

Set margins

**File/Page Setup/Margins**

| | |
|---|---|
| Top: | .70” |
| Bottom: | .30” |
| Left: | .75” |
| Right: | .25” |

Set font

**Edit/Select All,** then **Format/Font**

| | |
|---|---|
| Font Name: | Letter Gothic12BT |
| Font Size: | 10 point |

Center the report

**Edit/Select All**, then click on **Center** alignment button

Space report headings

Enter 1 line before the report heading, enter 2 lines after the heading

# F. Sample Reports

The following are sample LOCUS™ Pro **Balance** computer report runs:

TRADE AREA TOTALS

| Trade Area | Mar 1999 |
|---|---|
| Population | 30,595 |
| Potential | 912,309 |
| Facility Volume | 741,750 |
| Float Amount | 170,559 |
| Float Percent | 18.70% |

STORES IN OPERATION

| Facility Map Key | Name | ---Mar 1999 --- Volume | /Sq. Ft | Total Area | Draw | Image |
|---|---|---|---|---|---|---|
| 1 | MARKETPLACE | 250,000 | 7.35 | 34,000 | 90.00 | 121 |
| 2 | GROCERYLAND | 120,000 | 7.06 | 17,000 | 95.00 | 102 |
| 3 | FRESH FAIR | 300,000 | 6.67 | 45,000 | 90.00 | 120 |
| 4 | FARMER'S | 45,000 | 6.00 | 7,500 | 95.00 | 64 |
| 5 | GROCERYLAND | 100,000 | 5.00 | 20,000 | 90.00 | 94 |
| Average | | 163,000 | 6.60 | 24,700 | | 100 |

SECTOR SUMMARY

| Sector Map Key | -----Mar 1999----- Population | PCE | Potential | -------Float------- Percent | Amount |
|---|---|---|---|---|---|
| 1 | 2,655 | 31.80 | 84,429 | 17.46 | 14,738 |
| 2 | 2,185 | 28.11 | 61,420 | 17.49 | 10,743 |
| 3 | 2,240 | 32.45 | 72,688 | 17.50 | 12,722 |
| 4 | 2,375 | 29.98 | 71,203 | 17.57 | 12,511 |
| 5 | 4,670 | 29.11 | 135,944 | 20.23 | 27,498 |
| 6 | 2,025 | 29.21 | 59,150 | 20.02 | 11,842 |
| 7 | 2,595 | 29.36 | 76,189 | 17.73 | 13,510 |
| 8 | 4,440 | 29.98 | 133,111 | 17.79 | 23,680 |
| 9 | 2,470 | 30.11 | 74,372 | 19.91 | 14,804 |
| 10 | 4,940 | 29.11 | 143,803 | 19.83 | 28,509 |
| Total | 30,595 | | 912,309 | | 170,559 |
| Average | | 29.82 | | 18.70 | |

FACILITY MARKET SHARE BY SECTOR

| Mar 1999 Facility Sector | 1 MARKETPL --M.S.-- | 2 GROCERYL --M.S.-- | 3 FRESH FA --M.S.-- | 4 FARMER'S --M.S.-- | 5 GROCERYL --M.S.-- |
|---|---|---|---|---|---|
| 1 | 22.33 | 28.25 | 23.89 | .02 | 8.06 |
| 2 | 26.87 | 12.31 | 28.99 | .00 | 14.33 |
| 3 | 24.32 | 20.09 | 26.28 | .03 | 11.77 |
| 4 | 24.16 | 23.74 | 27.29 | 2.35 | 4.89 |
| 5 | 28.12 | 4.66 | 35.39 | .05 | 11.56 |
| 6 | 26.48 | 11.98 | 34.54 | .14 | 6.84 |
| 7 | 22.59 | 13.11 | 28.42 | 13.47 | 4.69 |
| 8 | 20.10 | 9.91 | 26.10 | 22.42 | 3.67 |
| 9 | 22.95 | 14.38 | 26.76 | 1.05 | 14.95 |
| 10 | 27.70 | 2.64 | 33.83 | .00 | 16.00 |
| Market | 24.66 | 12.50 | 29.60 | 4.69 | 9.87 |

STORE VOLUME REPORT BY SECTOR

Facility Map Key = 2 Mar 1999 Draw = 95

| Sector Map Key | Sector Share | Expected Volume | Population | Potential | Float |
|---|---|---|---|---|---|
| 1 | 28.25 | 23,850 | 2,655 | 84,429 | 17.46 |
| 2 | 12.31 | 7,562 | 2,185 | 61,420 | 17.49 |
| 3 | 20.09 | 14,604 | 2,240 | 72,688 | 17.50 |
| 4 | 23.74 | 16,903 | 2,375 | 71,203 | 17.57 |
| 5 | 4.66 | 6,332 | 4,670 | 135,944 | 20.23 |
| 6 | 11.98 | 7,085 | 2,025 | 59,150 | 20.02 |
| 7 | 13.11 | 9,986 | 2,595 | 76,189 | 17.73 |
| 8 | 9.91 | 13,191 | 4,440 | 133,111 | 17.79 |
| 9 | 14.38 | 10,695 | 2,470 | 74,372 | 19.91 |
| 10 | 2.64 | 3,791 | 4,940 | 143,803 | 19.83 |
| Total/Avg | 12.50 | 114,000 | 30,595 | 912,309 | 18.70 |

CHAIN SUMMARY

| Chain Name | # of Facs | Chain Total Volume | Chain Total Average | Chain Total Size | Chain Total Average | Vol/ SqFt | Avg Image | Market Share |
|---|---|---|---|---|---|---|---|---|
| MARKETPLACE | 1 | 250,000 | 250,000 | 34,000 | 34,000 | 7.35 | 121 | 24.66 |
| GROCERYLAND | 2 | 220,000 | 110,000 | 37,000 | 18,500 | 5.95 | 99 | 22.36 |
| FRESH FAIR | 1 | 300,000 | 300,000 | 45,000 | 45,000 | 6.67 | 120 | 29.60 |
| FARMER'S | 1 | 45,000 | 45,000 | 7,500 | 7,500 | 6.00 | 64 | 4.69 |
| Totals | 5 | 815,000 | | 123,500 | | | | 81.30 |
| Averages | | | 163,000 | | 24,700 | 6.60 | | |

MARKET SHARES BY DISTANCE

Facility Map Key = 2 Mar 1999 Draw=95

| Distance | Pop. | M.S. | Volume | %Sales | Cumulative Pop. | Cumulative M.S. | Cumulative Volume | Cumulative %Sales |
|---|---|---|---|---|---|---|---|---|
| 0.00- 0.50 | 2,655 | 28.25 | 23,850 | 19.88 | 2,655 | 28.25 | 23,850 | 19.88 |
| 0.50- 1.00 | 2,185 | 12.31 | 7,562 | 6.30 | 4,840 | 21.54 | 31,413 | 26.18 |
| 1.00- 1.50 | 2,240 | 20.09 | 14,604 | 12.17 | 7,080 | 21.06 | 46,017 | 38.35 |
| 1.50- 2.00 | 0 | 0.00 | 0 | 0.00 | 7,080 | 21.06 | 46,017 | 38.35 |
| 2.00- 2.50 | 6,965 | 5.36 | 10,876 | 9.06 | 14,045 | 13.50 | 56,893 | 47.41 |
| 2.50- 3.00 | 9,515 | 12.05 | 33,930 | 28.28 | 23,560 | 12.92 | 90,823 | 75.69 |
| 3.00- 3.50 | 0 | 0.00 | 0 | 0.00 | 23,560 | 12.92 | 90,823 | 75.69 |
| 3.50- 4.00 | 0 | 0.00 | 0 | 0.00 | 23,560 | 12.92 | 90,823 | 75.69 |
| 4.00- 4.50 | 2,595 | 13.11 | 9,986 | 8.32 | 26,155 | 12.94 | 100,809 | 84.01 |
| 4.50- 5.00 | 0 | 0.00 | 0 | 0.00 | 26,155 | 12.94 | 100,809 | 84.01 |
| 5.00- 5.50 | 0 | 0.00 | 0 | 0.00 | 26,155 | 12.94 | 100,809 | 84.01 |
| 5.50- 6.00 | 4,440 | 9.91 | 13,191 | 10.99 | 30,595 | 12.50 | 114,000 | 95.00 |

CORRELATION REPORT

Facility Map Key = 2 Mar 1999 GROCERYLAND

| Sector Map Key | Market Share Model | Market Share Corr. | Market Share Dif. | Sales Model | Sales Corr. | Sales Dif. | Miles |
|---|---|---|---|---|---|---|---|
| 1 | 28.25 | 25.57 | 2.68 | 23,850 | 21,590 | 2,260 | .37 |
| 2 | 12.31 | 16.87 | -4.56 | 7,562 | 10,363 | -2,801 | .67 |
| 3 | 20.09 | 22.57 | -2.48 | 14,604 | 16,408 | -1,804 | 1.04 |
| 4 | 23.74 | 27.90 | -4.16 | 16,903 | 19,863 | -2,960 | 2.51 |
| 5 | 4.66 | 2.54 | 2.12 | 6,332 | 3,454 | 2,878 | 2.87 |
| 6 | 11.98 | 16.06 | -4.08 | 7,085 | 9,500 | -2,414 | 2.26 |
| 7 | 13.11 | 13.60 | -.50 | 9,986 | 10,363 | -377 | 4.06 |
| 8 | 9.91 | 6.49 | 3.42 | 13,191 | 8,636 | 4,555 | 5.59 |
| 9 | 14.38 | 16.26 | -1.88 | 10,695 | 12,090 | -1,396 | 2.83 |
| 10 | 2.64 | 1.20 | 1.43 | 3,791 | 1,727 | 2,063 | 2.04 |
| Totals | | | -8.00 | | | 5 | |
| Coefficient | | | .95 | | | 0.91 | |

CHAIN MARKET SHARE BY SECTOR

| Sector | Mar 1999 MARKETPL --M.S.-- |
|---|---|
| 1 | 22.33 |
| 2 | 26.87 |
| 3 | 24.32 |
| 4 | 24.16 |
| 5 | 28.12 |
| 6 | 26.48 |
| 7 | 22.59 |
| 8 | 20.10 |
| 9 | 22.95 |
| 10 | 27.70 |
| Market | 24.66 |

# G. Graphics Components

## 1. Creating a Pie Graph


**Figure 6-25: Creating a Pie Graph.**

You may use all of the chains by selecting *, or use only a selected few by moving the chains you wish to analyze by following directions in the box to the right.

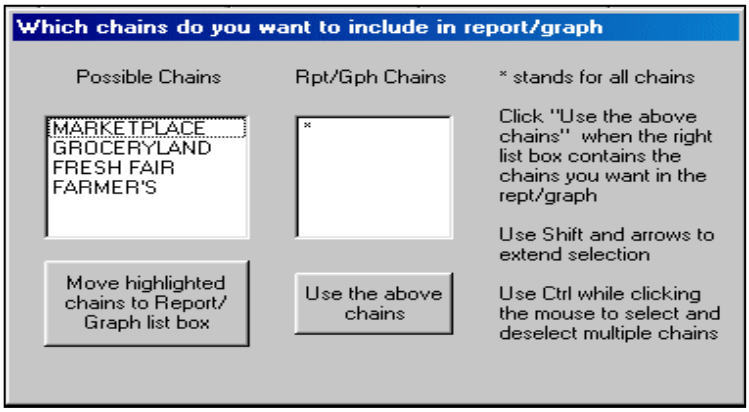



**Figure 6-26: Defining Pie Graph Parameters.**

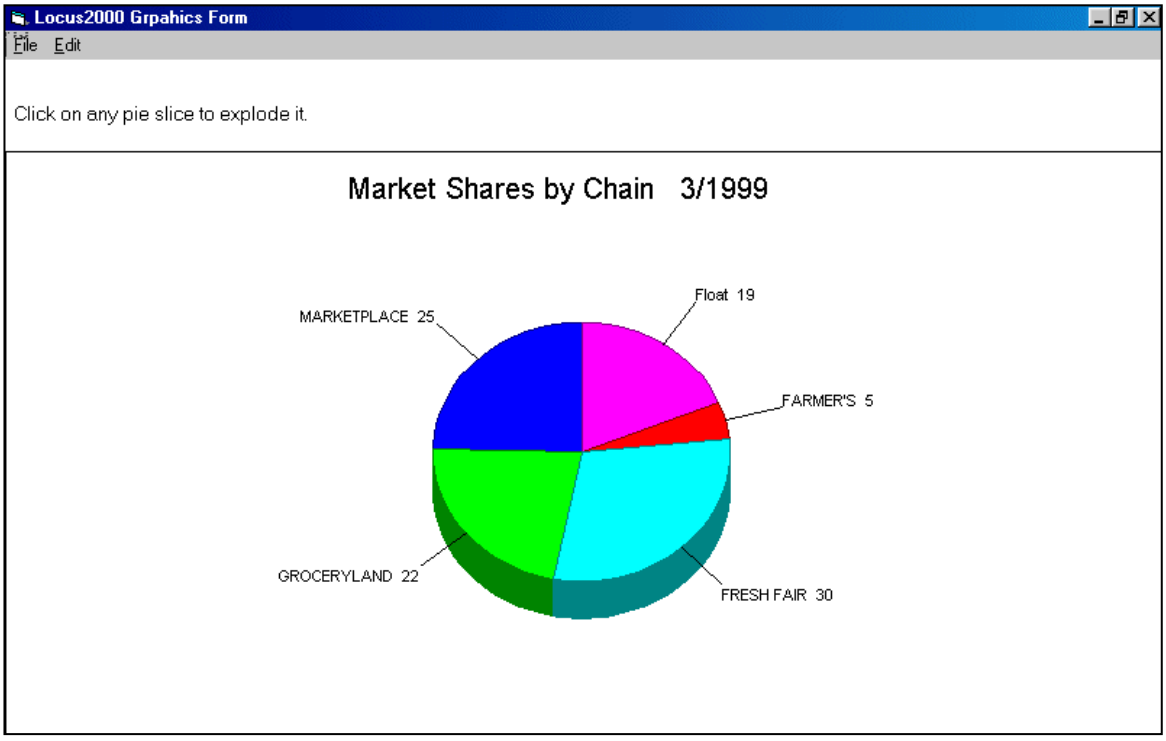



**Figure 6-27: Pie Graph Results.**

## 2. Creating a Bar Graph


**Figure 6-28: Creating a Bar Graph.**

You may use all of the chains by selecting *, or use only a selected few by moving the chains you wish to analyze by following directions in the box shown on the right. There is also an edit function to change the bar chart type or to rotate the chart display.

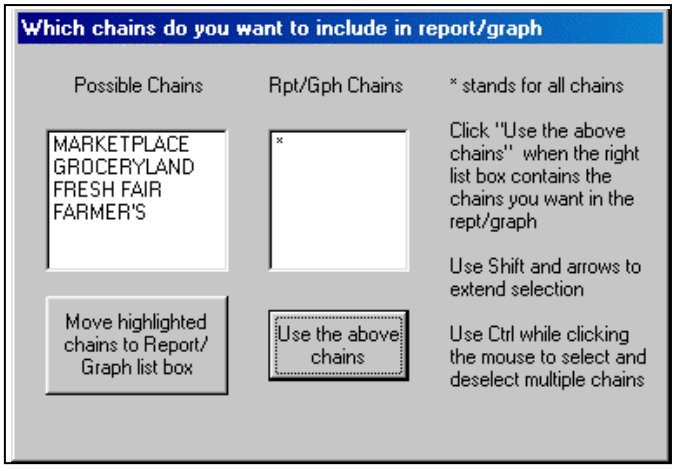



**Figure 6-29: Setting Bar Graph Parameters.**

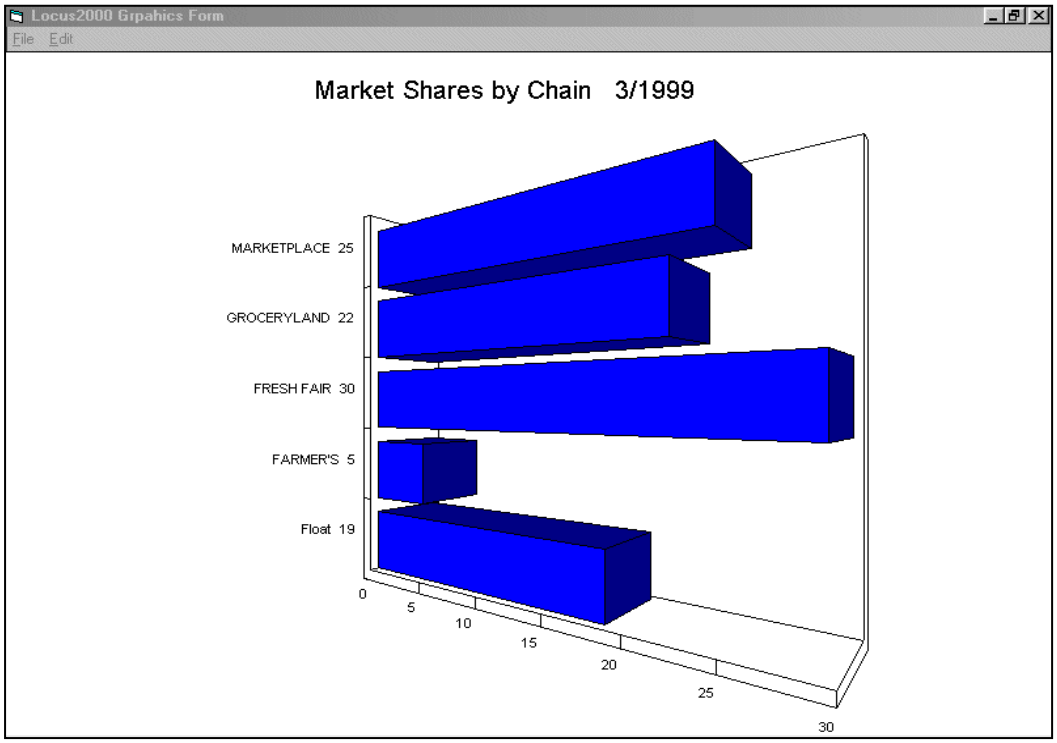



**Figure 6-30: Bar Graph Results.**

# Chapter 7
# Entering and Using Customer Survey Data

The customer survey information is used to check the model volume distribution. Correlation is a statistical process of measuring the degree to which one set of data is related to another. When you use the correlation function within LOCUS™ PRO, you compare your LOCUS™ PRO model distribution to your customer survey distribution.

Each facility in your model can have a customer survey data set, but you can only have data for 500 sectors per facility. The survey information is entered by sector for each facility.

Customer survey data is entered during the balancing process, usually after data is verified and float is distributed. Customer survey data is typically entered into the model after a preliminary balance of the model. As such, it becomes a comparison tool for the analyst to verify whether the preliminary balance matches the customer survey information or needs more adjustment. The customer survey data shows which sectors contribute to a facility's volume.

In this chapter, you will learn how to add customer survey data, verify the results, and adjust the model if necessary.

## A. Customer Survey Data

In each customer survey there must be a count of the number of customers from each sector. This is sometimes referred to as the dot count. The survey may also include the amount spent by these customers. This information must be summarized in one of two ways. Either the amount spent should be totaled or averaged. The average purchase by sector is sometimes called the dot value.

## B. Adding Customer Survey Data

### 1. Add New Survey Information

To add customer survey information into the model, select the **Customer Survey** folder and choose **Add New Survey**. The **Add New Survey Information** box appears.

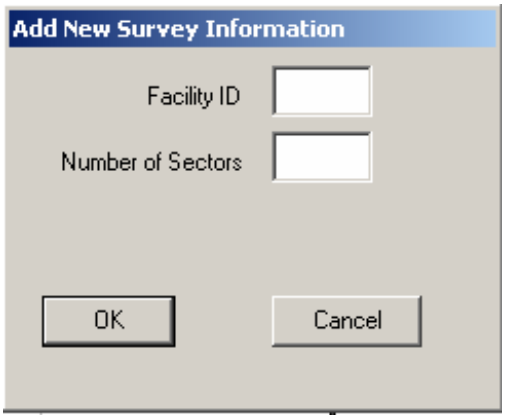



Figure 7-1: Add New Survey Information Box.

Enter *Facility ID, Number of Sectors* and press the OK button.

### 2. Enter Facility Information

After pressing the OK button the model allows you to enter the sectors and dot counts and the optional average or total purchase.

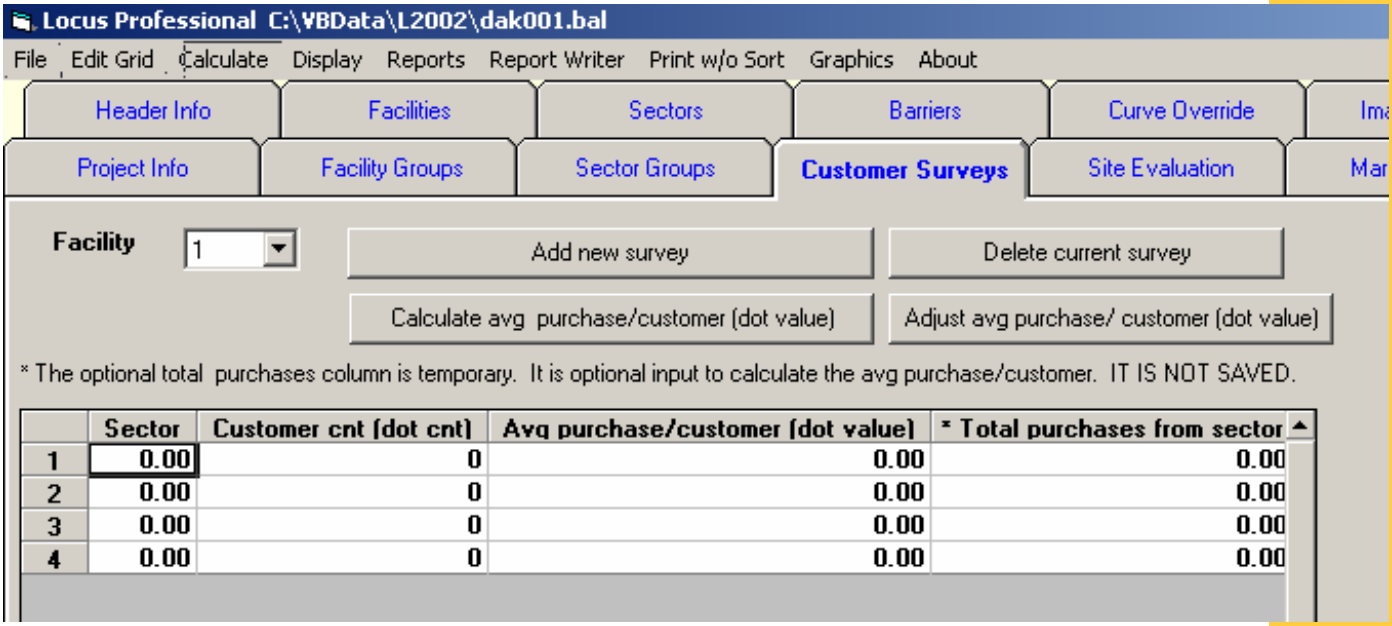



**Figure 7-2: Entering Sectors and Dot Counts.**

### 3. Calculate Dot Value

**Note:** The raw data is a picture of what happened during a specified period of time while the store was being surveyed. The program's calculation extrapolates the dot value

column to reflect what the survey would have shown if it lasted the same amount of time used for each store's observed volume. (This time period is chosen on the Header Info tab [Volume is 0-weekly 1-monthly 2-annual].) Any raw data in the dot value column is replaced by the extrapolated data when the user presses the **Average purchase/customer** or **Adjust average purchase/customer** button. The instructions for preparing the survey data for analysis vary according to the data that is entered.

**If…..**

a. **Sector and customer count are entered**
   After entering the sector ids and the corresponding customer counts press the **Average purchase/customer** button. The computer calculates the average purchase per customer for each sector. The sum of all the sectors' volume (dot count multiplied by dot value) will equal the observed volume times the draw.

**b. Sector, customer count and average purchase are entered**
   After entering the sector, customer count and average purchase for each sector, press the **Adjust average purchase/customer** button. This adjusts the average purchase so the sum of all the sectors' volume (dot count multiplied by dot value) will equal the observed volume times the draw.

**c. Sector, customer count and total purchases per sector are entered**
   After entering the sector, customer count and total purchases per sector for each sector, press the **Average purchase/customer** button. This computes the average purchase so the sum of all the sectors' volume (dot count multiplied by dot value) will equal the observed volume times the draw.

# C. The Correlation Report and Utilizing the Customer Survey Data

Once the customer survey information is entered, the Correlation Report compares it to the market share and dollar volumes in the model to see how well it correlates. You will need to analyze this comparison.

To request a Correlation Report click on the pull-down menu **Reports**, **Single Facility Reports and Correlation report** (Figure 7-4) and a box appears (Figure 7-4). Enter in the facility or the facilities for which you wish to see the correlation. The report is then shown (Figure 7-5).

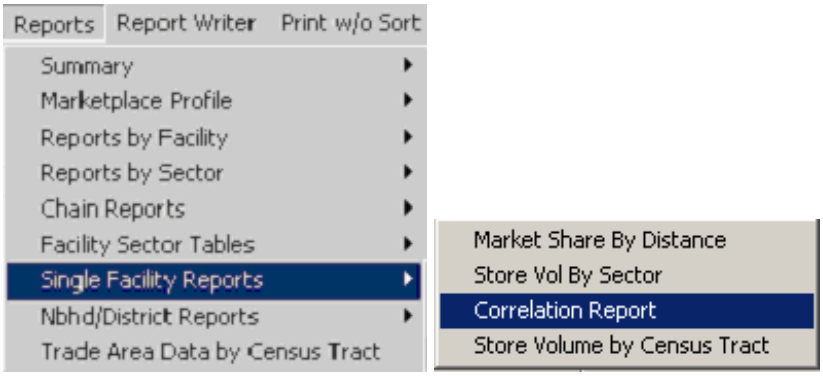



**Figure 7-3: Requesting a Correlation Report.**

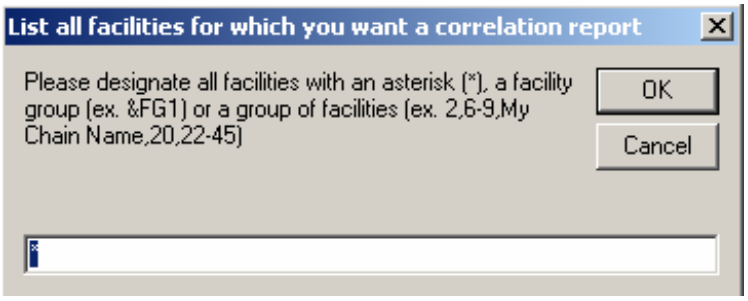



**Figure 7-4: Requesting facilities for the Correlation Report**

**The following is an example of the report that will appear on the report tab.** You may print it by selecting the **Print** button on the report tab..

Del Col | Print | Write to xls File | Write to tab File | Add blank columns

**CORRELATION REPORT**

Facility Map Key = 2 — Groceryland

| Sector Map Key | Market Share Model | Market Share Survey | Market Share Dif. | Sales Model | Sales Survey | Sales Dif. | Miles |
|---|---|---|---|---|---|---|---|
| 1 | 28.25 | 25.57 | 2.68 | 23,850 | 21,590 | 2,260 | 0.37 |
| 2 | 12.31 | 16.87 | -4.56 | 7,563 | 10,363 | -2,800 | 0.67 |
| 3 | 20.09 | 22.57 | -2.48 | 14,605 | 16,408 | -1,804 | 1.04 |
| 4 | 23.74 | 27.90 | -4.16 | 16,903 | 19,863 | -2,960 | 2.51 |
| 5 | 4.66 | 2.54 | 2.12 | 6,332 | 3,454 | 2,878 | 2.87 |
| 6 | 11.98 | 16.06 | -4.08 | 7,085 | 9,500 | -2,414 | 2.26 |
| 7 | 13.11 | 13.60 | -0.49 | 9,986 | 10,363 | -377 | 4.06 |
| 8 | 9.91 | 6.49 | 3.42 | 13,191 | 8,636 | 4,555 | 5.59 |
| 9 | 14.38 | 16.26 | -1.88 | 10,695 | 12,090 | -1,396 | 2.83 |
| 10 | 2.64 | 1.20 | 1.44 | 3,791 | 1,727 | 2,064 | 2.04 |
| Totals | | | -8.00 | | | 7 | |
| Correlation Coefficient | | | 0.95 | | | 1 | |

**Figure 7-5: Sample Correlation Report.**

If the comparison reveals a significant difference between the sales distribution of LOCUS™ PRO and that of the customer survey set, you may want to do the following:

- Check your customer survey data to make sure it is accurate.
- Check your LOCUS™ PRO model data to make sure that it is accurate.
- "Fit" the model by updating sector float, facility draw, facility curve, sector or facility radius, or by adding overrides.

# D. Adding a Sector to a Customer Survey Set

If you have **only** entered the **sector id and the customer (dot) count** you can add new sectors after the original calculations. If you have established a correlation set between sectors and a facility, and want to add another sector to the set, go to the **Customer Survey** folder, click on the last sector row and then right click for the pull-down menu. Select **insert row** to add a row. Type in sector number and dot count, and then select **Calculate avg purchase**. The sector is added and a new correlation report is produced. To view the new correlation, follow the steps previously shown.

If you have entered **average or total volumes** you must delete the original customer survey inputs and start over. (Remember after clicking the Calculate Average or Adjust Average buttons that the data in the average purchase column has been extrapolated to reflect the correct time period.)

# Chapter 8
# Building Tactical Simulations

Once you have a balanced model which is an accurate simulation of your current marketplace, you can use this model to predict What If scenarios. Some of these scenarios might include:

- What will happen if a new facility opens?
- What will happen if a facility closes?
- What if an existing facility remodels, expands or changes?
- What if the population or PCE changes?
- What if the road system changes?

You can answer all of these questions and many more by adding or changing information in your model and then calculating the effects within your marketplace. When you find some What If scenarios that are effective, you can use these tactics to create your market strategy.

In this chapter, you will first learn how to retrieve your file and print a report, so that you can analyze your marketplace to determine what tactics you want to use. You will then learn how to add facilities and barriers that you can use to test your tactical simulations. You will also learn how to modify the tactical changes you have made. Finally, you will learn how to save your tactics file and what questions to ask to analyze your results.

## A. Analyzing the Existing Marketplace

Whenever you try to answer a What If question, you must make assumptions as to the effects of the change within the marketplace. If you ask, "What if a new facility opens?" you need to evaluate the new facility's parameters (size, draw, curve, image and so forth) in relation to what is happening in your current marketplace.

For example, if all the facilities around your site have 90 draws and your facility is a similar format and size, then you would assign a similar draw of 90.

The image of your facility should also be assigned based on the images of similar facilities in your marketplace. You must ask, "Is my facility better, the same, or a little less than the competition?" and assign the parameters accordingly (draw, image and curve).

To make accurate projections, you need to understand the relationships that exist in your current marketplace before you decide which parameters to use in your projections. To study these relationships, you may look at the individual file folders of the model or the **File/Print All Input** screen.

The steps you will need to follow are:

1. Access the LOCUS™ Pro **Balance** program (see *Chapter 3, Basic LOCUS™ Pro Operations,* for instructions).
2. Open your balanced model.
3. Click on the **Header Info** folder and then click the **Balance (Mode)** button.

The model changes to **Tactics** mode and prompts you for the market year and month. Click **OK**. Next, set the **Market Month** (1 = January, 12 = December). Then enter the appropriate date into the **Market Year** field, such as 2001. Now is a good time to **Save**. Using the pull-down command **File/Save Model As**, assign a tactics file name, such as DAK001.Pl (Figure 8-1 and Figure 8-2).

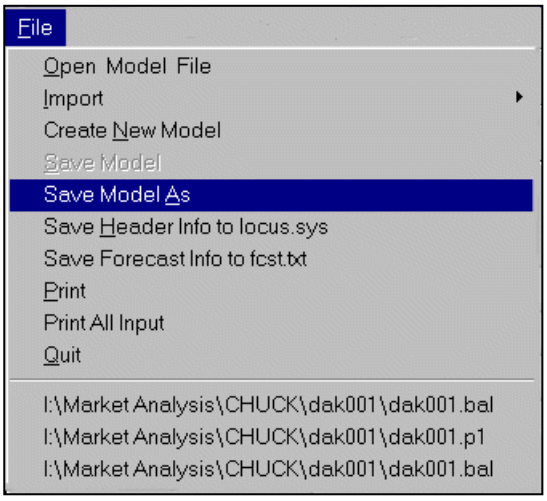



**Figure 8-1: Saving the Model.**

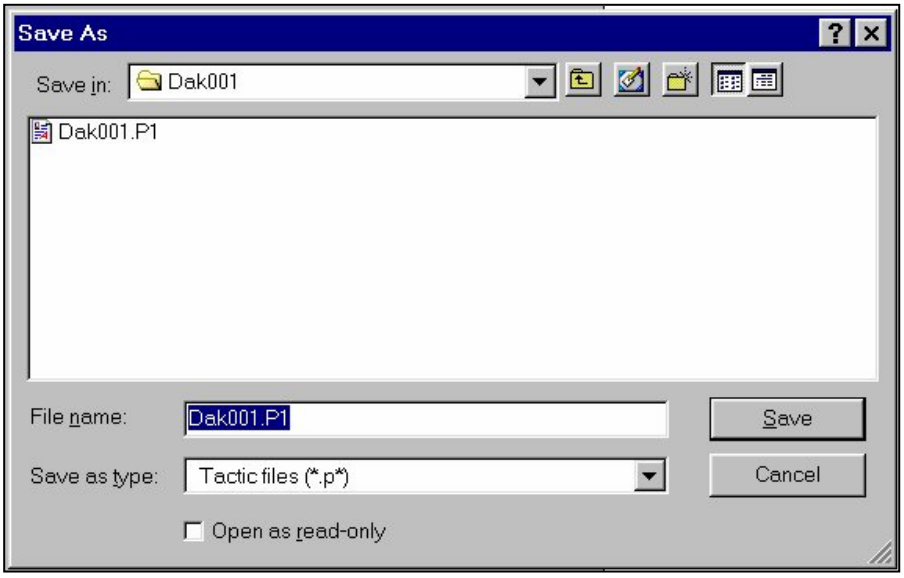
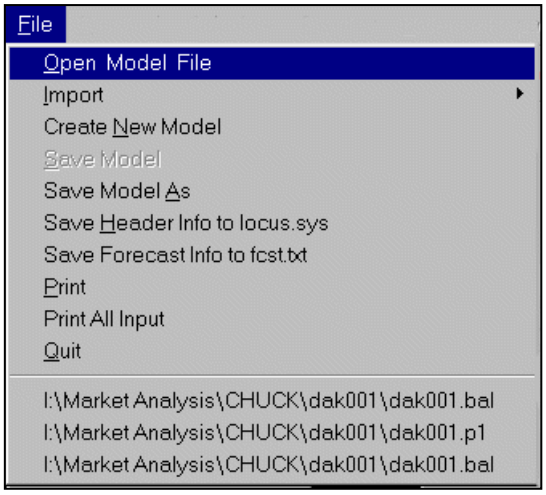



**Figure 8-2: Save As Window.**

The LOCUS™ Pro menu in **Tactics** mode lets you select from among the primary commands in the program. Within the **Tactics** module, you can retrieve and save files, add data to a model, update information, list reports, calculate and simulate the market, define groups of information and exit the program. See *Chapter 3, Basic LOCUS™ Pro Operations,* for explanations of these commands.

### 1. Retrieving Your File




Select the **File/Open Model File** command from the pull-down menu as shown in Figure 8-3.

The **Tactics** program will display the **Open Model** screen. Enter the name of the file you want to retrieve, including the path if necessary.

**Figure 8-3: Opening a Model File.**

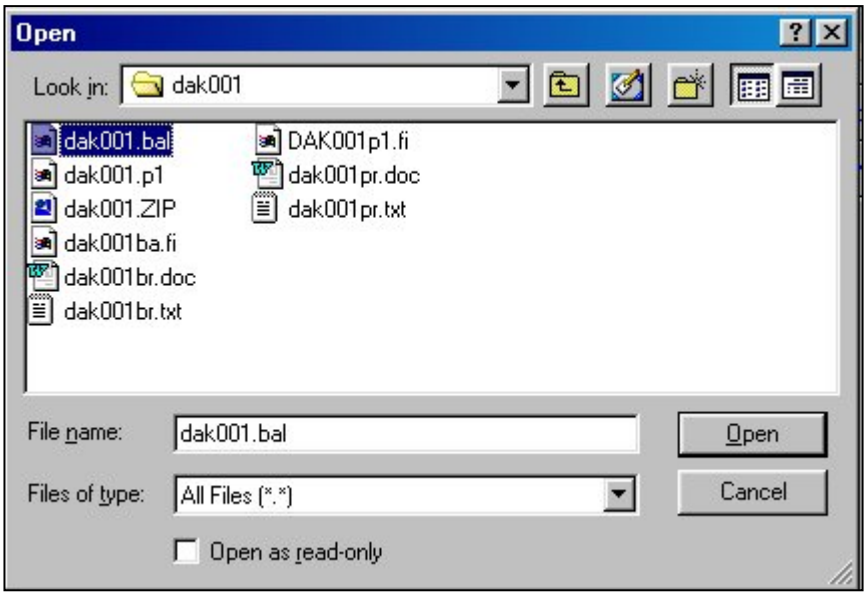



**Figure 8-4: Selecting the File to Open.**

Also enter any extension characters that you may have used in the file name. For example, to retrieve model *ANYTOWN.BAL* from the LOCUS™ Pro directory in the "C" drive, enter *C:\LOCUS Pro\ANYTOWN.BAL* and press **Enter**. The program will load the file and display the status line information.

**2. Review File Folders or Print a Model Summary**

To determine the relationships that exist in your marketplace, either look at each **Tactics** folder separately or print a *Model Summary* as described before (pull-down command **File/Print-All Input**). You will find that in many instances you will be able to observe pertinent data without printing. Observable data is all the input information on the facilities, sectors and barriers in your marketplace. You can now check the report to see how the existing market is structured.

# B. Building Your Tactics Model

After analyzing the *Model Summary*, you are ready to begin your tactical simulations.

Use your balanced model as the base for the tactics model. You can build as many tactics models as you want using your balanced model, but you cannot modify your balanced model in **Tactics** mode.

As you are aware, tactical simulation does not just involve adding a new facility to your market. In many cases, you may want to examine how an upgrade, remodel or relocation would affect your market (and your facility in particular).

In LOCUS™ Pro **Tactics**, you may not change an existing facility from the balanced model to reflect these types of changes. To change a facility's characteristics for tactical simulation, create another facility to represent the "changed facility," and close the existing "balanced model" facility. To accomplish this, follow these steps:

1. Select the **Facilities** folder. Click on the facility you wish to change; right click and highlight **Close Cur Open Ident**. The existing facility is closed and a new, identical facility is created with a [.1] added to its map key number. (*i.e.*, if the existing facility is *Map Key 3*, it would be changed to *Map Key 3.1* for the upgrade). Now you may change the size, image, curve, etc., to reflect the change of circumstance for this unit. If you have overrides on the replaced facility, make sure to add them to this unit if deemed necessary.

   **NOTE:** **Calculate/Close** and **Calculate/Open** commands are explained later in this chapter.

2. When you are through testing, **Save** the file to a file name different than that of your balanced model.

The following sections discuss adding facilities, adding barriers, and opening and closing stores as methods of incorporating your market changes into a tactical model.

# C. Adding Facilities

## 1. Adding a Facility

To add a facility to your model, select the **Facilities** folder, click on the last facility, right click and highlight **insert row**. For multiple stores, highlight **add x rows**. The number you request is added. You may now enter in all data for the new store.

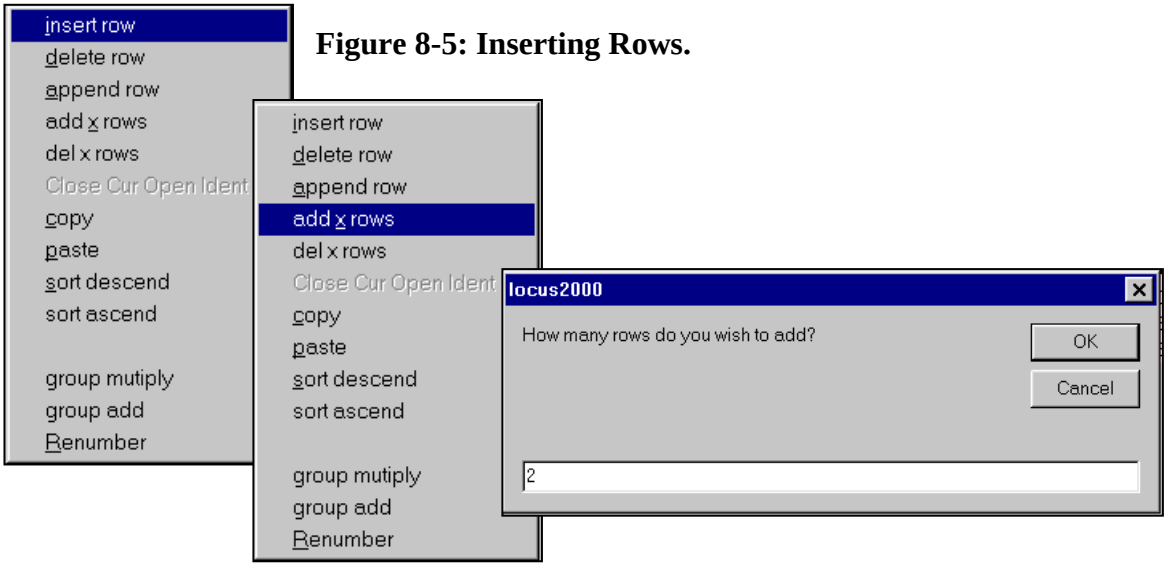
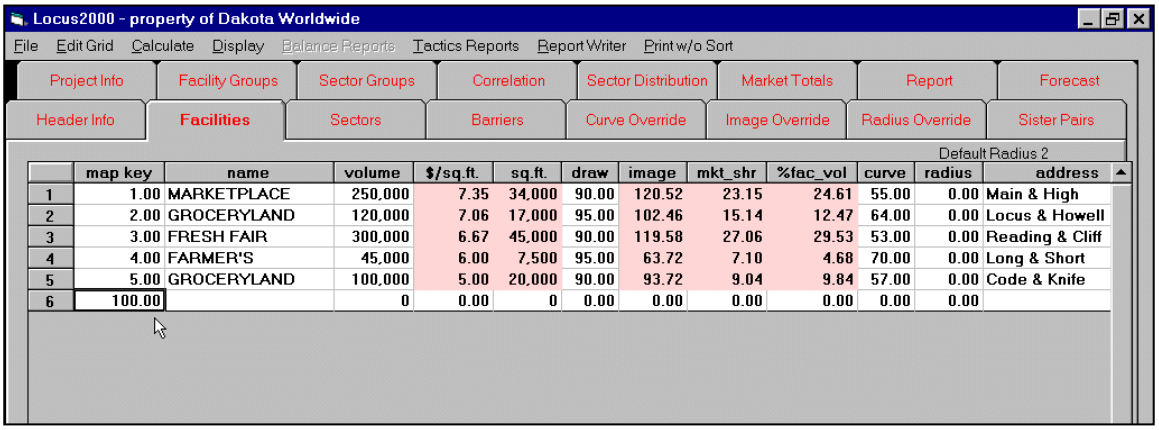



**Figure 8-5: Inserting Rows.**

## 2. Market Change

On the other hand, if the new facility is a market change, you may assign it a *Map Key* of *100*. Figure 8-6 below shows how to assign a new *Map Key* to an existing facility.




| | map key | name | volume | $/sq.ft. | sq.ft. | draw | image | mkt_shr | %fac_vol | curve | radius | address |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 250,000 | 7.35 | 34,000 | 90.00 | 120.52 | 23.15 | 24.61 | 55.00 | 0.00 | Main & High |
| 2 | 2.00 | GROCERYLAND | 120,000 | 7.06 | 17,000 | 95.00 | 102.46 | 15.14 | 12.47 | 64.00 | 0.00 | Locus & Howell |
| 3 | 3.00 | FRESH FAIR | 300,000 | 6.67 | 45,000 | 90.00 | 119.58 | 27.06 | 29.53 | 53.00 | 0.00 | Reading & Cliff |
| 4 | 4.00 | FARMER'S | 45,000 | 6.00 | 7,500 | 95.00 | 63.72 | 7.10 | 4.68 | 70.00 | 0.00 | Long & Short |
| 5 | 5.00 | GROCERYLAND | 100,000 | 5.00 | 20,000 | 90.00 | 93.72 | 9.04 | 9.84 | 57.00 | 0.00 | Code & Knife |
| 6 | 100.00 | | 0 | 0.00 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

**Figure 8-6: Assigning a New Map Key to a Facility.**

### 3. Entering Facility Information

Enter the information in the fields displayed, including all factual data.

**Name**

The name of the facility (maximum of 16 characters).

**Map Key**

This is the unique numerical reference used to identify the facility within this data set. Enter a value greater than 1 through 99999.99.

**NOTE:** If you are testing multiple sizes and/or formats, it is recommended to assign different map key numbers for each scenario. For example, suppose you are testing 30,000, 40,000 and 50,000 square foot facilities at a site. Use *Map Key 1000* for the 30,000 square foot facility, *Map Key 1000.1* for the 40,000 square foot facility, and *Map Key 1000.2* for the 50,000 square foot facility. Opening and closing the facilities (explained later in this chapter) will test the tactics.

**Sales Area**

The interior floor space of the facility, in square feet/square meters, that the customer can access (does not include storage and preparation areas). Enter a value from 1 through 999999.

**Total Area**

Total square feet/square meters of the facility. Enter a value from 1 through 999999.

**NOTE 1:** The program requires that you enter either *Sales Area* or *Total Area*, depending on which area you are modeling.

**NOTE 2:** The sales or total area should reflect the commodity/area being modeled. For example, in a hypermarket, only the grocery portion of the facility would normally be included in a supermarket model.

**Image**

A ranking number for the new or upgraded facility, assigned by the analyst. Enter a value greater than 0 up to 1000.

**Longitude X-Coordinate**

The Longitude coordinate pinpoints the physical location of a facility east or west of the prime meridian.

**Latitude Y-Coordinate**

The Latitude coordinate pinpoints the physical location of a facility north or south of the equator.

**Draw**

The percentage of the facility's observed volume that is derived from the trade area. Enter a value from 1 through 99.99.

**Curve**
The measurement of a facility's pulling power or ability to attract customers over distance. Enter a value from 1 through 99.99.

**Radius**
The radius defines the facility's ability to reach out over distance. A facility may have a different radius from the overall model radius. Enter a value from 0 through 99.99.

Follow the same procedures until you have added all the facilities on your LOCUS™ Pro Tactics Sheet into your database.

# D. Adding Barriers

Barriers are obstacles that restrict travel from one area to another, thereby affecting the way consumers shop. Barriers can be either physical or psychological. Physical barriers are such things as rivers, railroad tracks and other natural or man-made obstacles that consumers cannot cross. Psychological barriers may be ethnic or economic, but they also discourage shoppers from traveling across certain areas.

For most tactics, adding barriers is unnecessary. However, in some instances there may be changes that have occurred since the model was balanced. For example, a new road or bridge would require a physical barrier, while a severe demographic shift might require a psychological barrier. Adding a barrier, or a crosspoint, simulates the changes in your marketplace since it was first modeled.

To add a barrier to your model, follow the procedure outlined in *Chapter 5, Creating the Model*.

# E. Removing Model Information

To remove information from your model, follow the procedure outlined in *Chapter 5, Section F*.

# F. Opening and Closing Facilities

If you are testing various scenarios with multiple changes for the same site (for example, multiple sizes, formats, draw and so forth), you must use the **Calculate/Open Facil** and **Calculate/Close Facil** pull-down commands. If you are remodeling or changing an existing facility, use the **Calculate/Close Facil** command to close the existing facility and **Calculate/Open Facil** to open the tactical facility you wish to test.

## 1. Closing a Facility

To close a facility, go to **Facilities** folder, find and click on the store you wish to close. Select **Calculate** from the pull-down menu and highlight **Close Facil** (for *Close Facility*). The facility closes (Figure 8-8).

The **Calculate/Close Facil** command lets you see what will occur in the marketplace if a facility closes, but it does not delete the facility from the database. Any facility you have closed using the **Close Facil** command can be re-opened using the **Calculate/Open Facil** command.

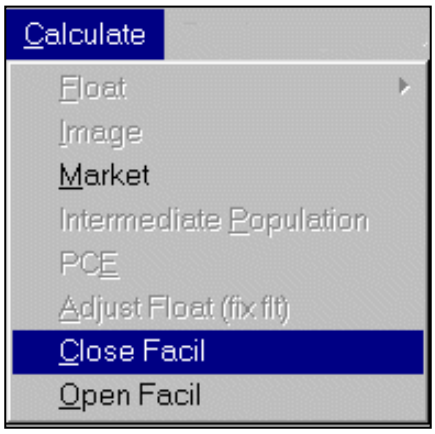
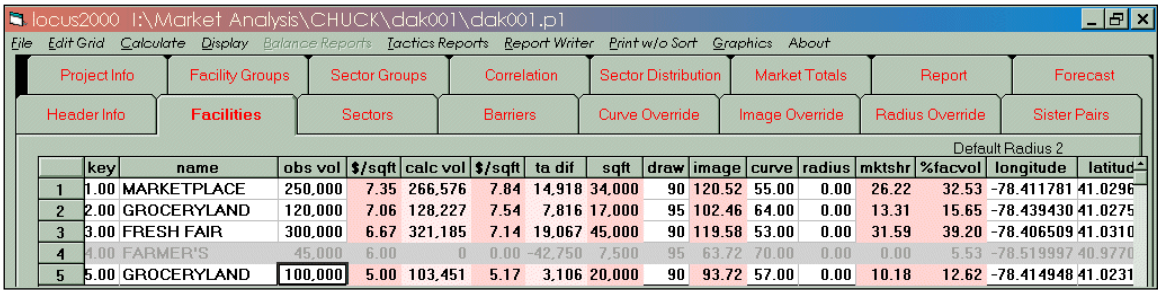



**Figure 8-7: Closing a Facility.**




| | key | name | obs vol | $/sqft | calc vol | $/sqft | ta dif | sqft | draw | image | curve | radius | mktshr | %facvol | longitude | latitud |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | MARKETPLACE | 250,000 | 7.35 | 266,576 | 7.84 | 14,918 | 34,000 | 90 | 120.52 | 55.00 | 0.00 | 26.22 | 32.53 | -78.411781 | 41.0296 |
| 2 | 2.00 | GROCERYLAND | 120,000 | 7.06 | 128,227 | 7.54 | 7,816 | 17,000 | 95 | 102.46 | 64.00 | 0.00 | 13.31 | 15.65 | -78.439430 | 41.0275 |
| 3 | 3.00 | FRESH FAIR | 300,000 | 6.67 | 321,185 | 7.14 | 19,067 | 45,000 | 90 | 119.58 | 53.00 | 0.00 | 31.59 | 39.20 | -78.406509 | 41.0310 |
| 4 | 4.00 | FARMER'S | 45,000 | 6.00 | 0 | 0.00 | -42,750 | 7,500 | 95 | 63.72 | 70.00 | 0.00 | 0.00 | 5.53 | -78.519997 | 40.9770 |
| 5 | 5.00 | GROCERYLAND | 100,000 | 5.00 | 103,451 | 5.17 | 3,106 | 20,000 | 90 | 93.72 | 57.00 | 0.00 | 10.18 | 12.62 | -78.414948 | 41.0231 |

**Figure 8-8: The Facility Closes.**

After you have closed the facility, the program will recalculate the model and display the effects of those changes on the marketplace. For example, click on the *Tactics Reports* from the pull-down menu and request a report such as *Projected Marketplace*.

## 2. Opening a Facility

To open a facility, find the store in the **Facilities** folder you wish to open and highlight it by clicking on it. Then select **Open Facil** (for *Opening Facility*) from the **Calculate** pull-down menu.

The facility opens (Figure 8-10). The program will recalculate the model and let you see the effects of your changes on the marketplace when you select the **Tactics Reports** pull-down menu and request a report such as *Projected Marketplace*.

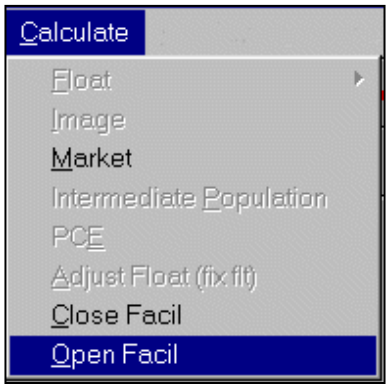



**Figure 8-9: Opening a Facility.**

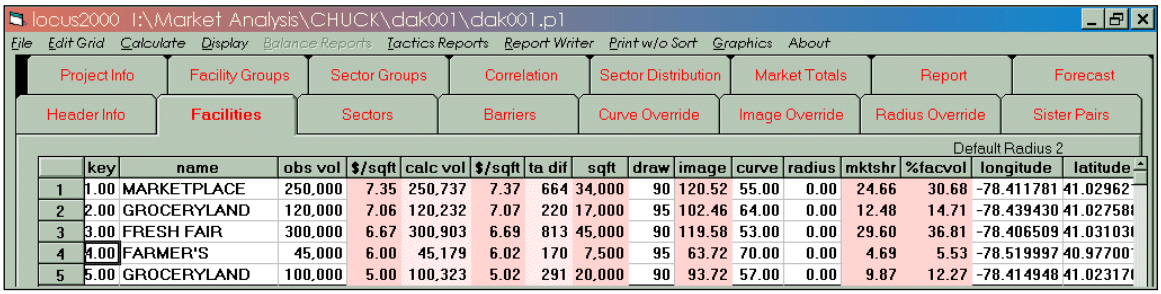



**Figure 8-10: The Facility Opens.**

**NOTE:** Any command that produces an estimated volume will print the word CLOSED in place of the estimated volume for facilities that have been closed.

# G. Calculating Market Share

**Calculate/Market** is a command used in **Tactics** to establish distance relationships and distribute potential (market share). The model automatically does this when you request a report.

To view (or print) the **Tactics** report *Projected Marketplace*, click on **Tactics Report** and highlight **Projected Marketplace**. A report of the stores in operation appears in the **Report** folder. You may print this by selecting **File/Print**.

The three main columns on the *Projected Marketplace* report are:

- *Estimated Volume*, which lists the new volume with the calculated market.
- *Current Volume*, which lists the current volume, which you can compare with the estimated volume. The heading shows the market date associated with this volume.
- *Trade Area Difference*, which shows what each facility in the trade area will gain or lose. The heading shows the field date associated with collection of the original market data.

# H. Displaying Paths

The **Display Path** Window is available in **Tactics**, as explained in *Chapter 5*.

# I. Modifying Tactical Changes

After you have added a new facility to your model, you might want to project some changes to the data that you entered for this facility. For example, you might want to raise or lower a facility's image, or change a sector's population.

**1. Changing or Correcting Data**

You may change data to conform to your fieldwork observations by using the appropriate folder and adjusting using the right-click function, as previously discussed in *Chapter 5*.

**2. Updating Sector Float**

Use the following steps if you have a situation in which you want to convert float. To update the float of one or more sectors, highlight the float percent column in the **Sectors** folder. Right click and use the **group add** pull-down command to reduce the float percent by a number (*i.e.,* 5 points). The float in all sectors will adjust by 5 points. This command allows you to adjust float percentages individually or en masse (by percentage adjustment).

**NOTE:** To restore float values to the values in the balanced model, use the same procedure and add back the 5 points.

# J. Analyzing Your Results

When you have finished adding and changing information in your model, and have calculated the effects, you can use the results to decide which tactics will work best in your market case. Ask yourself these questions:

1. Were the prediction(s) accurate in relation to the changes made?
2. Do the volume gain(s) justify the investment or the efforts involved?
3. Do I have enough information to create a market strategy?

If you are satisfied with the results, you can use these tactics to create your market strategy.

# K. Saving the Model

Once you are through building your tactics, you need to save a copy of your work. To save your file, use the **File/Save** pull-down command. The program will display the file name you previously defined.

LOCUS™ Pro will not allow you to save the file to a *.bal extension. You must change the file extension. Delete the default file extension by pressing **Backspace** and then entering a new file extension. (We recommend that you give the file an extension of *.p1, *.p2, *.p3 and so forth, to indicate your projection tactical versions.)

**!!WARNING!!** While LOCUS™ Pro attempts to protect your balanced model, it is possible to copy or rename a balanced model file without using a *.bal extension. We strongly recommend that you do not do this, because you could inadvertently write over a balanced file with tactical changes.

# L. Advanced Tactics

You may encounter situations that require additional refining in order to run tactical simulations. You may need to add overrides to your model or update overrides you have added. Advanced tactics are discussed in *Chapter 9, Advanced Modeling Techniques.*

# M. Report Writer for Tactics

This command replaces the FI file editor and printing function from previous versions. Click on **Report Writer** and select **Start New FI File** or **Retrieve FI File**.


**Figure 8-11: Report Writer Menu.**

This is a new addition to LOCUS™. You are in control of what report is requested and in what order it appears. Below is a sample FI for you to observe:

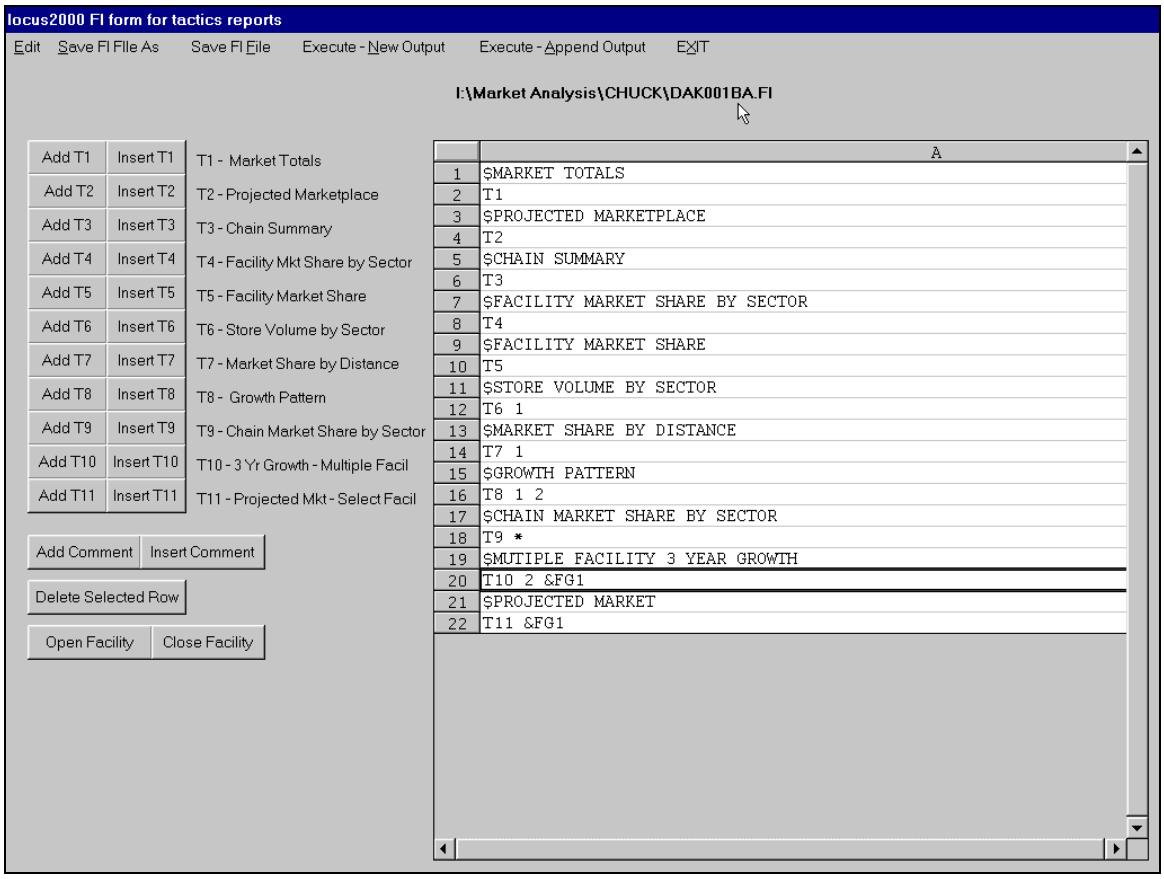



**Figure 8-12: FI Form for Tactics Reports.**

### 1. Adding Comments

To add comments, click on **Add Comment**; a "$" is added in the row. Type a description for the report (in our example, "MARKET TOTALS") as a header, then click **Add T1** (Market Totals). If you wish to place the FI command on top of the comment, choose **Insert T1** (Market Totals).

Once you are done with the Report Writer, select **Save FI As** and give the projection FI your model ID code (*i.e.*, *DAK001P1.FI*) and the FI is saved.

### 2. Execute New Output

The next step is to **Execute New Output**. This creates a text file with all your requested computer runs on it. Name the file as *DAK001PR.TXT*, so as to distinguish it as the projection run versus the balanced run, which would be labeled as *DAK001BR.TXT*. You may use any naming convention, except that it must be a *.txt file. These files import into Microsoft Word.

### Formatting LOCUS™ Pro runs in Microsoft Word

Set margins

**File/Page Setup/Margins**

| | |
|---|---|
| Top: | .70" |
| Bottom: | .30" |
| Left: | .75" |
| Right: | .25" |

Set font

**Edit/Select All,** then **Format/Font**

| | |
|---|---|
| Font Name: | Letter Gothic12BT |
| Font Size: | 10 point |

Center the report

**Edit/Select All**, then click on **Center** alignment button

Space report headings

Enter 1 line before the report heading, enter 2 lines after the heading

# N. Sample Reports

The following are sample LOCUS™ Pro **Tactics** computer report runs:

MARKET TOTALS

| Trade Area | Mar 1999 | Mar 2001 | % Change |
|---|---|---|---|
| Population | 30,595 | 30,685 | .29 |
| Potential | 912,309 | 914,971 | .29 |
| Facility Volume | 741,750 | 743,907 | .29 |
| Float Amount | 170,559 | 171,064 | .30 |
| Float Percent | 18.70 | 18.70 | |

PROJECTED MARKETPLACE

| Facility Map Key | Name | Forecast ---Mar 2001 --- Volume | /SqFt | Current ----Mar 1999 ---- Volume | /SqFt | T.A. Diff. | Fcst Total Area | Draw | Image |
|---|---|---|---|---|---|---|---|---|---|
| 1.00 | MARKETPLACE | 196,725 | 5.79 | 250,000 | 7.35 | -47,948 | 34,000 | 90.00 | 121 |
| 2.00 | GROCERYLAND | --closed-- | ---- | 120,000 | 7.06 | -114,000 | | 95.00 | 102 |
| 2.10 | GROCERYLAND | 187,840 | 7.51 | 0 | 0.00 | 178,448 | 25,000 | 95.00 | 112 |
| 3.00 | FRESH FAIR | 231,508 | 5.14 | 300,000 | 6.67 | -61,643 | 45,000 | 90.00 | 120 |
| 4.00 | FARMER'S | 57,010 | 7.60 | 45,000 | 6.00 | 11,409 | 7,500 | 95.00 | 64 |
| 5.00 | GROCERYLAND | --closed-- | ---- | 100,000 | 5.00 | -90,000 | | 90.00 | 94 |
| 5.10 | GROCERYLAND | 139,879 | 5.60 | 0 | 0.00 | 125,891 | 25,000 | 90.00 | 103 |
| Totals | | | | | | 2,157 | | | |
| Averages | | 162,592 | 5.96 | 163,000 | 6.60 | | 27,300 | | 102 |

CHAIN SUMMARY

| Chain Name | # of Facs | Chain Total Volume | Average | Size | Average | Vol/ SqFt | Avg Image | Market Share |
|---|---|---|---|---|---|---|---|---|
| MARKETPLACE | 1 | 196,725 | 196,725 | 34,000 | 34,000 | 5.79 | 121 | 19.35 |
| GROCERYLAND | 2 | 327,719 | 163,859 | 50,000 | 25,000 | 6.55 | 108 | 33.26 |
| FRESH FAIR | 1 | 231,508 | 231,508 | 45,000 | 45,000 | 5.14 | 120 | 22.77 |
| FARMER'S | 1 | 57,010 | 57,010 | 7,500 | 7,500 | 7.60 | 64 | 5.92 |
| Totals | 5 | 812,961 | | 136,500 | | | | 81.30 |
| Averages | | | 162,592 | | 27,300 | 5.96 | | |

FACILITY MARKET SHARES BY SECTOR

| Mar 1999 Facility Sector | 1.00 MARKETPL --M.S.-- | 2.10 GROCERYL --M.S.-- | 3.00 FRESH FA --M.S.-- | 4.00 FARMER'S --M.S.-- | 5.10 GROCERYL --M.S.-- |
|---|---|---|---|---|---|
| 1 | 13.70 | 45.11 | 13.57 | .00 | 10.16 |
| 2 | 23.49 | 17.72 | 23.44 | .00 | 17.85 |
| 3 | 16.96 | 33.94 | 16.95 | .01 | 14.64 |
| 4 | 14.96 | 38.06 | 15.95 | 1.39 | 12.07 |
| 5 | 25.19 | 7.21 | 33.13 | .01 | 14.24 |
| 6 | 21.76 | 18.86 | 27.27 | .08 | 12.01 |
| 7 | 16.15 | 18.35 | 19.91 | 16.90 | 10.95 |
| 8 | 13.62 | 12.37 | 17.50 | 29.86 | 8.86 |
| 9 | 17.59 | 27.32 | 19.14 | .33 | 15.71 |
| 10 | 25.66 | 3.94 | 30.81 | .00 | 19.77 |
| Market | 19.35 | 19.50 | 22.77 | 5.92 | 13.76 |

PROJECTED MARKET SHARE

| Map Key | Facility Name | -----Mar 2001 ----- M.S. | Volume |
|---|---|---|---|
| 1.00 | MARKETPLACE | 19.35 | 177,052 |
| 2.10 | GROCERYLAND | 19.50 | 178,448 |
| 3.00 | FRESH FAIR | 22.77 | 208,357 |
| 4.00 | FARMER'S | 5.92 | 54,159 |
| 5.10 | GROCERYLAND | 13.76 | 125,891 |
| Totals | | 81.30 | 743,907 |

**NOTE:** The *Projected Market Share* report shows facility volume derived from the trade area only.

STORE VOLUME BY SECTOR

Facility Map Key = 5.1 Mar 2001 Draw=90

| Sector Map Key | Sector Share | Expected Volume | Population | Potential | Float |
|---|---|---|---|---|---|
| 1 | 10.16 | 8,585 | 2,658 | 84,524 | 17.46 |
| 2 | 17.85 | 10,980 | 2,188 | 61,505 | 17.49 |
| 3 | 14.64 | 10,659 | 2,243 | 72,785 | 17.50 |
| 4 | 12.07 | 8,602 | 2,378 | 71,292 | 17.57 |
| 5 | 14.24 | 19,377 | 4,676 | 136,118 | 20.23 |
| 6 | 12.01 | 7,115 | 2,028 | 59,238 | 20.02 |
| 7 | 10.95 | 8,354 | 2,598 | 76,277 | 17.73 |
| 8 | 8.86 | 11,852 | 4,463 | 133,801 | 17.79 |
| 9 | 15.71 | 11,700 | 2,473 | 74,462 | 19.91 |
| 10 | 19.77 | 28,666 | 4,980 | 144,968 | 19.83 |
| Total/Avg | 13.76 | 125,891 | 30,685 | 914,971 | 18.70 |

MARKET SHARE BY DISTANCE

Facility Map Key = 5.1 Mar 2001 Draw=90

| Distance | Pop. | M.S. | Volume | %Sales | Cumulative Pop. | Cumulative M.S. | Cumulative Volume | Cumulative %Sales |
|---|---|---|---|---|---|---|---|---|
| 0.00- 0.50 | 4,980 | 19.77 | 28,666 | 20.49 | 4,980 | 19.77 | 28,666 | 20.49 |
| 0.50- 1.00 | 2,188 | 17.85 | 10,980 | 7.85 | 7,168 | 19.20 | 39,647 | 28.34 |
| 1.00- 1.50 | 4,676 | 14.24 | 19,377 | 13.85 | 11,844 | 17.23 | 59,023 | 42.20 |
| 1.50- 2.00 | 2,243 | 14.64 | 10,659 | 7.62 | 14,087 | 16.78 | 69,683 | 49.82 |
| 2.00- 2.50 | 2,658 | 10.16 | 8,585 | 6.14 | 16,745 | 15.66 | 78,267 | 55.95 |
| 2.50- 3.00 | 0 | 0.00 | 0 | 0.00 | 16,745 | 15.66 | 78,267 | 55.95 |
| 3.00- 3.50 | 2,028 | 12.01 | 7,115 | 5.09 | 18,773 | 15.27 | 85,382 | 61.04 |
| 3.50- 4.00 | 2,473 | 15.71 | 11,700 | 8.36 | 21,246 | 15.32 | 97,082 | 69.40 |
| 4.00- 4.50 | 2,378 | 12.07 | 8,602 | 6.15 | 23,624 | 14.99 | 105,684 | 75.55 |
| 4.50- 5.00 | 0 | 0.00 | 0 | 0.00 | 23,624 | 14.99 | 105,684 | 75.55 |
| 5.00- 5.50 | 0 | 0.00 | 0 | 0.00 | 23,624 | 14.99 | 105,684 | 75.55 |
| 5.50- 6.00 | 0 | 0.00 | 0 | 0.00 | 23,624 | 14.99 | 105,684 | 75.55 |
| 6.00- 6.50 | 2,598 | 10.95 | 8,354 | 5.97 | 26,222 | 14.60 | 114,039 | 81.53 |
| 6.50- 7.00 | 0 | 0.00 | 0 | 0.00 | 26,222 | 14.60 | 114,039 | 81.53 |
| 7.00- 7.50 | 0 | 0.00 | 0 | 0.00 | 26,222 | 14.60 | 114,039 | 81.53 |
| 7.50- 8.00 | 0 | 0.00 | 0 | 0.00 | 26,222 | 14.60 | 114,039 | 81.53 |
| 8.00- 8.50 | 4,463 | 8.86 | 11,852 | 8.47 | 30,685 | 13.76 | 125,891 | 90.00 |

THREE-YEAR GROWTH PATTERN

Facility Map Key = 5.1 Mar 2001

Sales Forecast

| | Sales | /SqFt |
|---|---|---|
| 1st Year | 139,879 | 5.60 |
| 2nd Year | 143,544 | 5.74 |
| 3rd Year | 147,185 | 5.89 |

CHAIN MARKET SHARE BY SECTOR

| Mar 2001 Sector | GROCERYLAND --M.S.-- |
|---|---|
| 1 | 55.27 |
| 2 | 35.57 |
| 3 | 48.58 |
| 4 | 50.13 |
| 5 | 21.45 |
| 6 | 30.87 |
| 7 | 29.31 |
| 8 | 21.22 |
| 9 | 43.04 |
| 10 | 23.71 |
| Market | 33.26 |

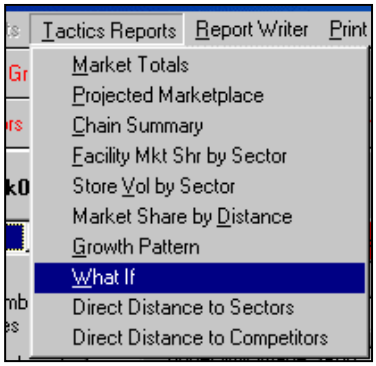
THREE-YEAR GROWTH PATTERN

| Facility Map Keys | Name | Forecast ---Mar 2001--- Volume | /SqFt | Forecast ---Mar 2002--- Volume | /SqFt | Forecast ---Mar 2003--- Volume | /SqFt | Draw | Image |
|---|---|---|---|---|---|---|---|---|---|
| 2.10 | GROCERYLAND | 187,840 | 7.51 | 191,689 | 7.67 | 195,480 | 7.82 | 95.00 | 112 |
| 5.10 | GROCERYLAND | 139,879 | 5.60 | 143,544 | 5.74 | 147,185 | 5.89 | 90.00 | 103 |
| | Averages | 163,859 | 6.55 | 167,617 | 6.70 | 171,333 | 6.85 | | 108 |

PROJECTED MARKET

| Facility Map Key | Name | Forecast ---Mar 2001 --- Volume | /SqFt | Current ----Mar 1999 ---- Volume | /SqFt | T.A. Diff. | Fcst Total Area | Draw | Image |
|---|---|---|---|---|---|---|---|---|---|
| 2.10 | GROCERYLAND | 187,840 | 7.51 | 0 | 0.00 | 178,448 | 25,000 | 95.00 | 112 |
| 5.10 | GROCERYLAND | 139,879 | 5.60 | 0 | 0.00 | 125,891 | 25,000 | 90.00 | 103 |
| Totals | | | | | | 304,339 | | | |

# O. What Ifs




What Ifs can be run to determine volume changes for the projected site by the following process.

Click on the **Tactics Report** pull-down menu and highlight **What If** as shown (Figure 8-13). The **What If** parameters box will appear (Figure 8-14).

**Figure 8-13: Starting the What If Tactics Report.**

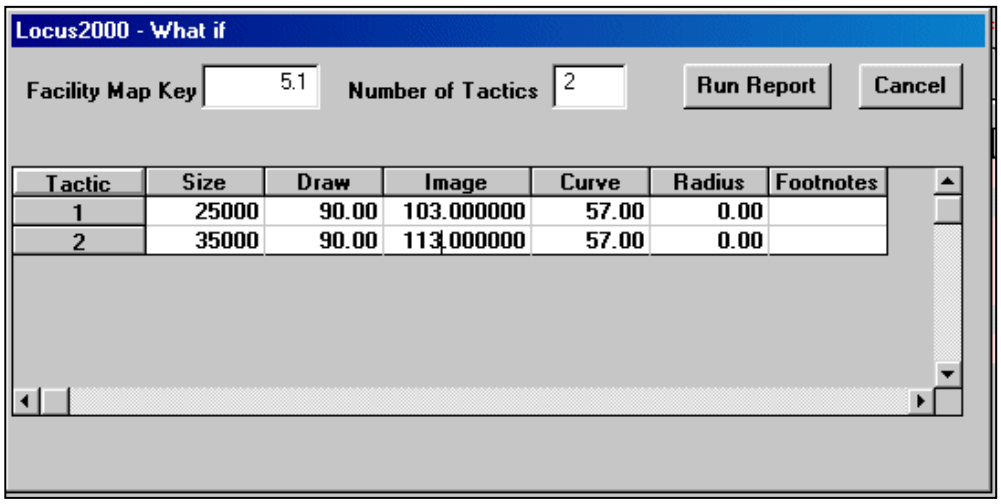
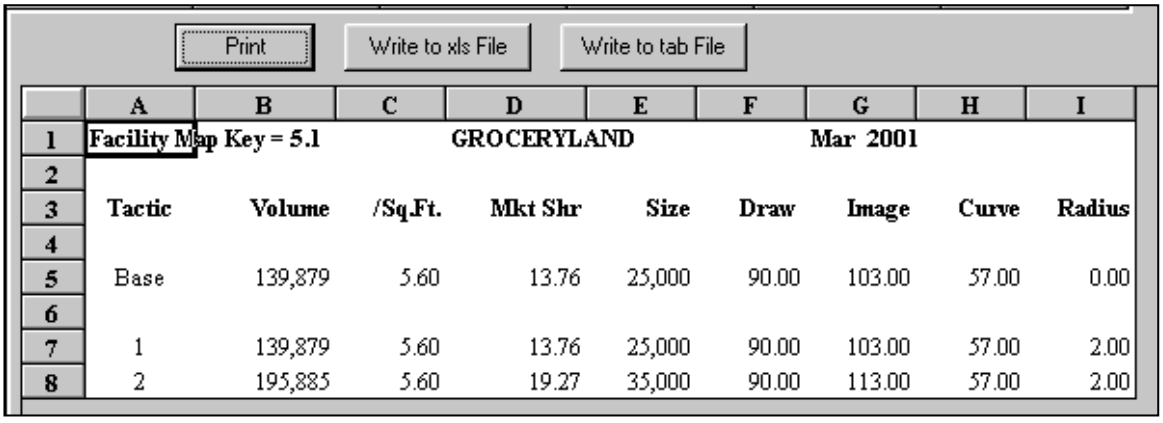



**Figure 8-14: What If Parameters Box.**

Fill in the site desired and number of tactics, then click on the **Tactic** column. The number of tactics you selected is shown. Simply fill in the desired size, draw, image and radius, and click on **Run Report**. The results are shown in Figure 8-15.




| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Facility Map Key = 5.1 | | | GROCERYLAND | | | Mar 2001 | | |
| 2 | | | | | | | | | |
| 3 | Tactic | Volume | /Sq.Ft. | Mkt Shr | Size | Draw | Image | Curve | Radius |
| 4 | | | | | | | | | |
| 5 | Base | 139,879 | 5.60 | 13.76 | 25,000 | 90.00 | 103.00 | 57.00 | 0.00 |
| 6 | | | | | | | | | |
| 7 | 1 | 139,879 | 5.60 | 13.76 | 25,000 | 90.00 | 103.00 | 57.00 | 2.00 |
| 8 | 2 | 195,885 | 5.60 | 19.27 | 35,000 | 90.00 | 113.00 | 57.00 | 2.00 |

**Figure 8-15: What If Report Results.**

# Chapter 9
# Advanced Modeling Techniques

There are certain techniques in LOCUS™ Pro which you may use while balancing your model or doing tactical simulations. These techniques are used when the model, using the basic parameters, does not simulate the marketplace closely enough, and you need to adjust the market shares, or "fit" the model. You may want to use these advanced techniques when you need to:

- Control an unusual facility/sector combination.
- Adjust the consumer research information you put into your model.
- Produce a sister facility effect.

This chapter explains how to use advanced modeling techniques and indicates whether they are used in LOCUS™ Pro **Balance**, LOCUS™ Pro **Tactics** or both modules of the system.

## A. Using Overrides (Balance and Tactics)

**Overrides** are special functions which enable you to designate a separate curve, image or radius value for specific facility/sector combinations.

You might add overrides during the balancing or tactics process if you need to control an unusual situation. For example, a facility might have a unique location that does not warrant adding a barrier, where you could add curve or radius overrides to adjust the facility's market share and image. LOCUS™ Pro allows you to add overrides.

### 1. Adding Overrides

On the LOCUS™ Pro **Balance** or **Tactics** folder menu, select the **Curve Override, Image Override** or **Radius Override** folder**.**

### 2. Curve Overrides

A curve override allows you to designate a different curve value for a specific facility/sector combination than the curve value assigned to the facility in the basic model. This will adjust the market share between the specified facility and sector. It will not change the curve value used between the facility and other sectors in the model.

To add a curve override to your model, select the **Curve Override** folder, as shown in Figure 9-1.

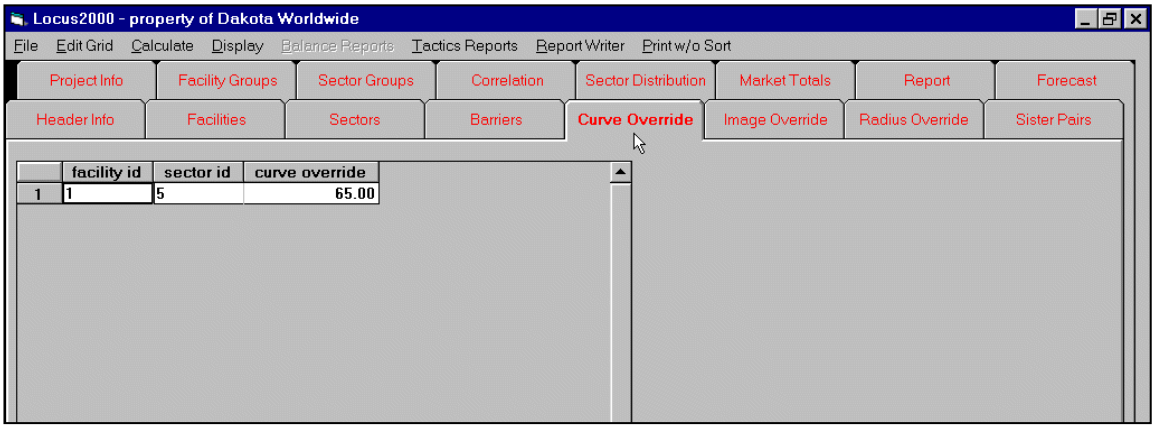



**Figure 9-1: Curve Override Folder.**

Right click for the drop-down menu, select **insert row** or **add rows**, and the appropriate number of rows will appear. Type the *Map Key(s)* of the facilities and sectors you wish to add overrides to and the desired *curve override* value (1 to 99.99).

### 3. Image Overrides

An image override enables you to designate a specific image to be used for a facility/sector combination. During the balancing process, this image override will not change as a result of the **Caculate/Image** command.

To add an image override to your model, select the **Image Override** folder. Right click for the drop down menu, select **insert row** or **add rows**, and the appropriate number of rows will appear. Type the *Map Key(s)* of the facilities and sectors you wish to add overrides to and the desired *image override* value (1 to 1000).

### 4. Radius Overrides

The radius controls the length of the curve, which influences the facility's pulling power. If you change the facility's radius, it will affect the market shares captured from the sector. Limits for the radius are 0.1 to 99.99.

To add a radius override, select the **Radius Override** folder, as show in Figure 9-2. Right click and the drop down menu appears. Select **insert row** or **add rows** and the appropriate number of rows will appear. Type the *Map Key(s)* of the facilities and sectors you wish to add overrides to and the desired *radius override* value (0.1 to 99.99).

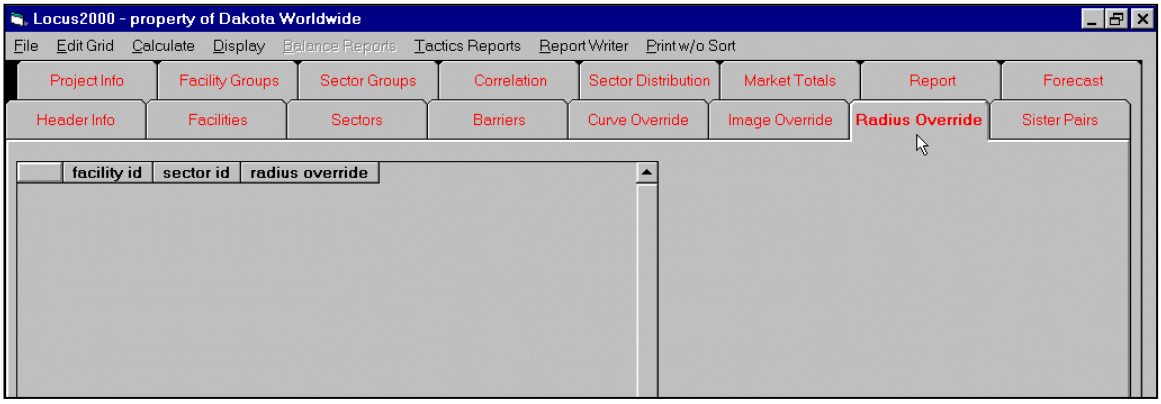



**Figure 9-2: Radius Override Folder.**

**5. Updating Overrides**

You may want to change an override that you added to your model while you were balancing your model or doing tactical simulations. Any overrides you have added to your model can be updated by using the aforementioned process.

# B. Converting Float (Tactics)

You can adjust the float in the **Sectors** folder by *individual sector*, *group of sectors* or *all sectors*. Click on *Float* column, right click and highlight **group add**. To reduce the float 5 points, enter in "-5" and the float for all sectors will be adjusted by 5 points.

# C. Defining Groups (Balance and Tactics)

Within the **Facility Group** and **Sector Group** folders, you may combine facilities and sectors for reports. To do this, select the appropriate folder, add up to 9 rows, and list stores or sectors you wish to combine for reports.

> **Facility** - You may group facilities in up to nine groups. A facility may belong to one or more groups or no group.
>
> **Sector** - You may group sectors in up to nine groups, and a sector can belong to more than one group or no group.

# D. Sister Pairs

The sister pair or "sister store" effect builds a trade area buffer between two facilities. Generally, a sister pair is identified as between facilities from the same chain. It is entered in the **Sister Pairs** folder as shown in Figure 9-3. Each facility in a sister pair has an associated strength. In comparison, the best performing facility of the pair should have the higher strength value.

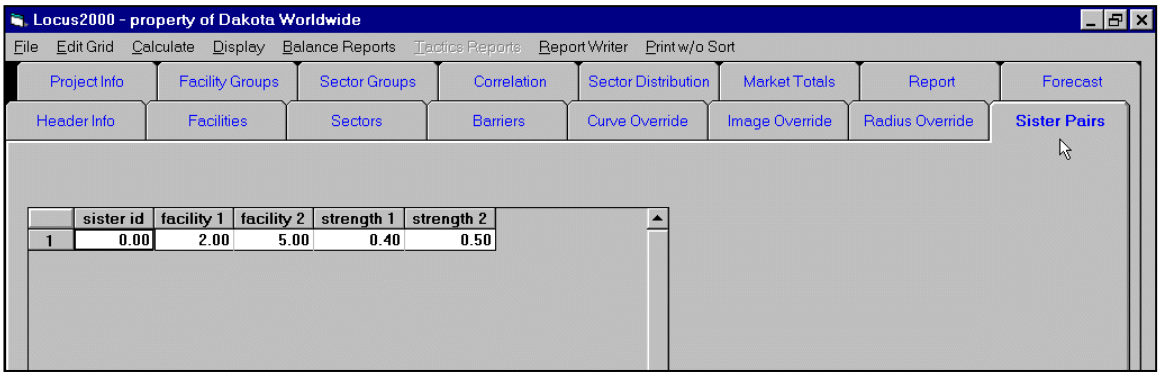



**Figure 9-3: Sister Pairs Folder.**

To review the effects on each facility's trade area, use the pull-down command **Display/Crossover** and the following window is displayed.

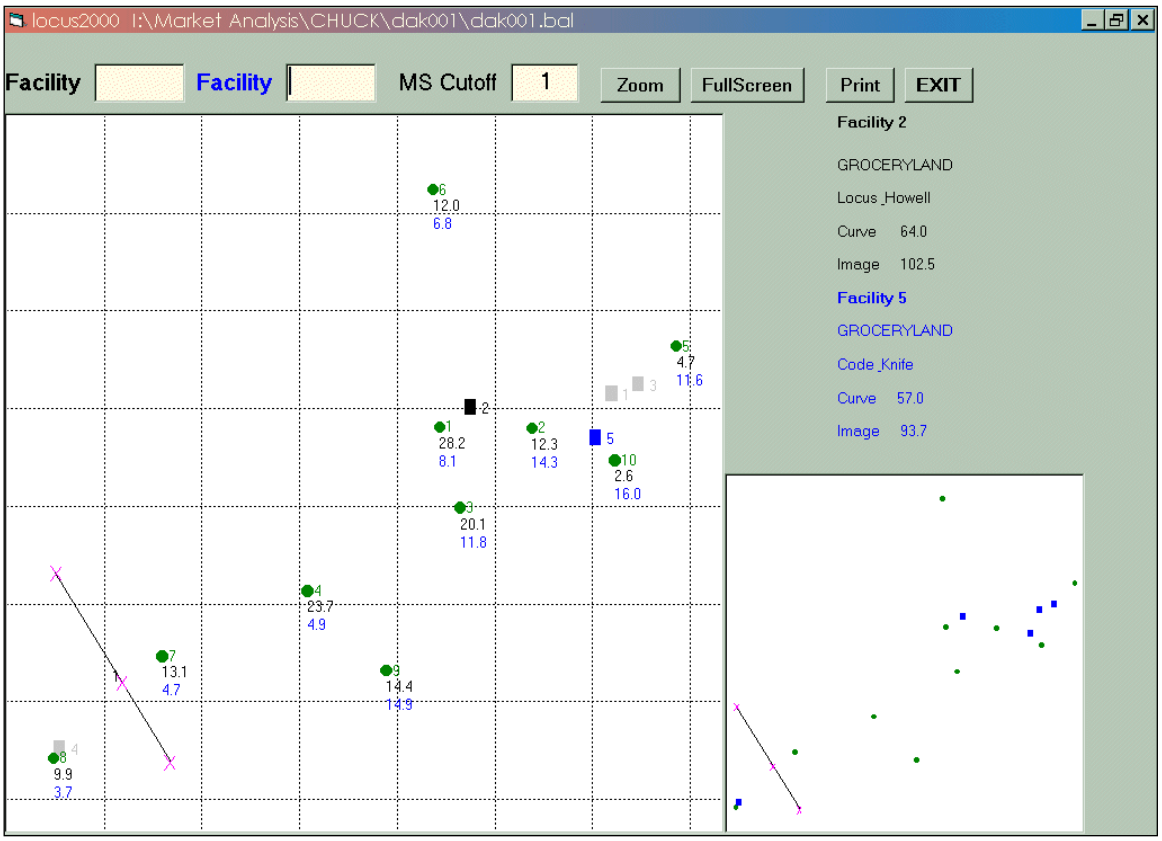



**Figure 9-4: Display Crossover Window.**

# E. Basis of Sales

The *Basis of Sales* report lists the components of a facility's projected sales. The steps to the *Basis of Sales* report results are illustrated in Figures 9-5, 9-6 and 9-7.


**Figure 9-5: Running a Basis of Sales Report.**

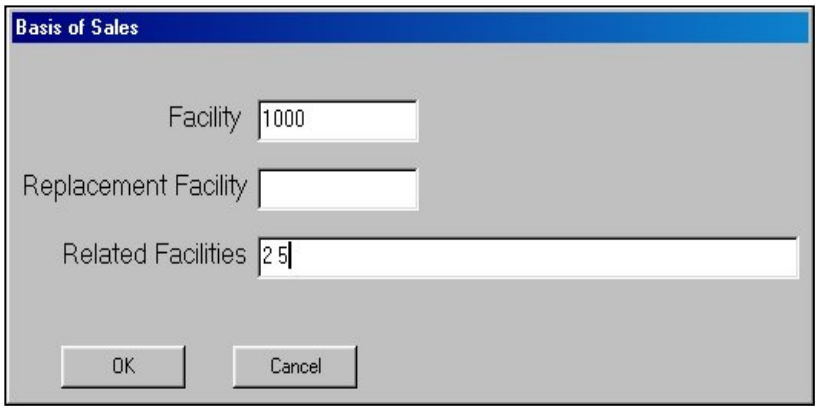



**Figure 9-6: Basis of Sales Input Box.**

**Figure 9-7: Basis of Sales Report Results.**

Print | Write to xls File | Write to tab File

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | BASIS OF SALES | | |
| 2 | | | | |
| 3 | | GROCERYLAND | --------Mar 2001-------- | |
| 4 | | Map Key 1000 | Sales | Percent |
| 5 | | | | |
| 6 | | Related Stores | 53,966 | 27.65 |
| 7 | | Competition | 121,472 | 62.24 |
| 8 | | Population | 223 | 0.11 |
| 9 | | Inflation | 0 | 0.00 |
| 10 | | Float | 0 | 0.00 |
| 11 | | Outside Trade Area | 19,518 | 10.00 |
| 12 | | | | |
| 13 | | Total | 195,179 | 100.00 |
| 14 | | | | |
| 15 | | | | |
| 16 | Related Stores | | ------Sales Transfer------ | |
| 17 | Map Key | Name | Mar 2001 | Percent |
| 18 | | | | |
| 19 | 2 | GROCERYLAND | -34,211 | -29.99 |
| 20 | 5 | GROCERYLAND | -19,754 | -21.92 |
| 21 | | | | |
| 22 | Total | | -53,966 | -26.42 |

# F. District Modeling

The concept of District Modeling is relative to the downsizing of an existing large or metropolitan model to a size more relevant to a single site. LOCUS™ Pro makes for an easy conversion as the display path window and the sector or facility file folder can be accessed at the same time. Therefore, the sectors and facilities not needed may be deleted in the sector or facility file folder. This is shown in the following example.

Make sure to save the model to a new filename to prevent writing over the original model.

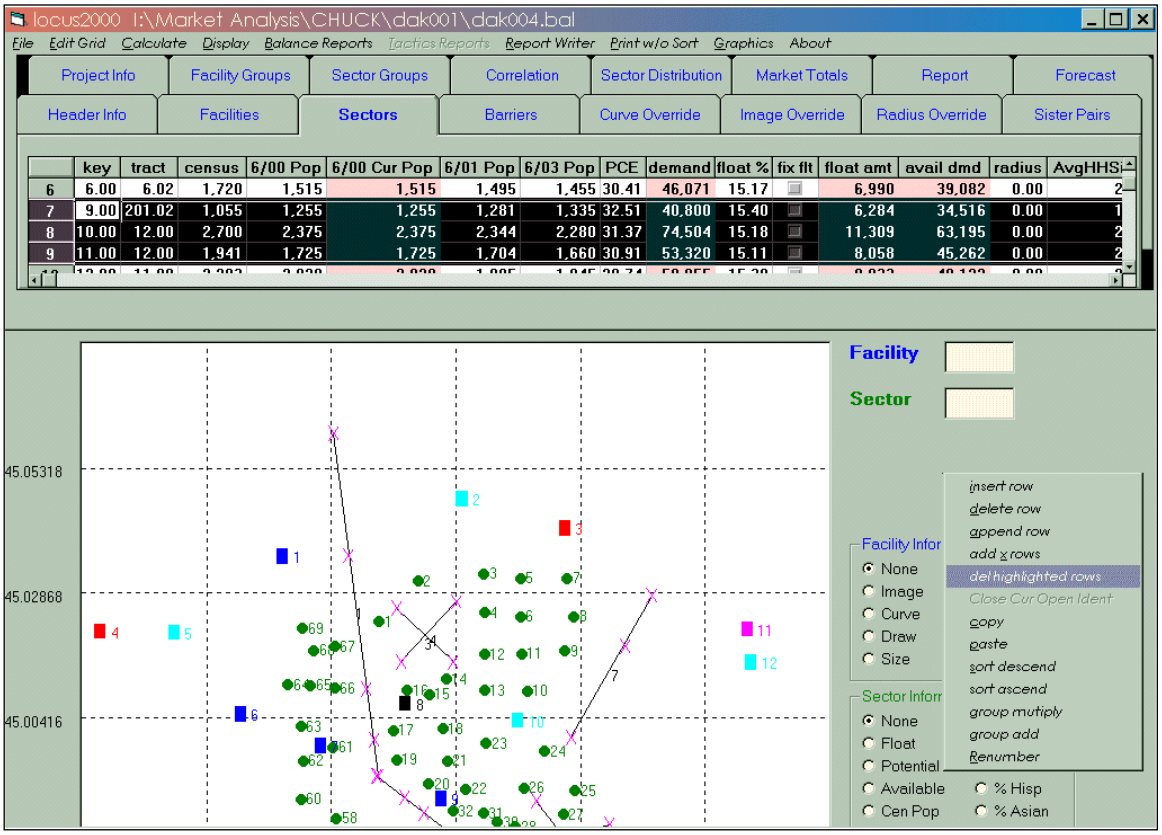



**Figure 9-8: Deleting Unnecessary Sectors.**

# G. Image Performance Alignment

Over the years analysts have applied various techniques to establish which store in their gravity model should have the highest Image. Many have used a combination of highest volume and highest dollar per square foot as the leading indicators for ranking the stores. In addition, the Draw of the store was important as analysts realized low Draw units were not to be given the same consideration as high Draw stores.

A basic Image formula was developed that divided an individual store''s $/SF by the average $/SF of all the stores. This gave each store a percent above or percent below the average. Example: Food Country Map Key 1 produces at $7.83 per square foot and when divided by $5.90 (the dollars per square foot of all stores) times 100 equals an Image of 132.75. However, recently it was realized that the 132.75 is not in relationship to an average store being 100 it is in relationship to the average store being 108.2925 as shown in cell (F13) which is the total of all stores 758.05 divided by seven.

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | Obs $/SF |
| 4 | Key | Store | Size | Volume | $/SF | | Image |
| 5 | 1 | Food Country | 29,735 | 232,900 | 7.83 | 132.75 | 122.59 |
| 6 | 2 | Food Country | 36,900 | 247,200 | 6.70 | 113.55 | 104.85 |
| 7 | 3 | Groceryland | 33,400 | 200,000 | 5.99 | 101.49 | 93.72 |
| 8 | 4 | Groceryland | 21,399 | 165,000 | 7.71 | 130.69 | 120.68 |
| 9 | 5 | Marketbasket | 53,300 | 400,000 | 7.50 | 127.20 | 117.46 |
| 10 | 6 | Food Country | 50,000 | 274,800 | 5.50 | 93.15 | 86.02 |
| 11 | 7 | SuperStore | 80,000 | 279,500 | 3.49 | 59.22 | 54.68 |
| 12 | | | 304,734 | 1,799,400 | 5.90 | 758.05 | 700.00 |
| 13 | | | | 257,057 | | 108.2925 | |

**Figure 9-9: Basic Image Formula.**

In order to show the Image equivalent of an average store being 100 the analyst must divide the store's percentage number by the average of all stores thus in the instance of Food Country Map Key 1 the relative Image is 122.59.

Some analysts have also given an Image to the total Observed Volume by dividing the Observed Volume of a store by the average Observed Volume of all stores.

In this instance Food County Map Key 1 achieves an Observed Volume Image of 90.60 which is its average volume of $232,900 per week divided by the models average of $257,057 times 100.

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | Obs V % |
| 4 | Key | Store | Size | Draw | Volume | Image |
| 5 | 1 | Food Country | 29,735 | 98 | 232,900 | 90.60 |
| 6 | 2 | Food Country | 36,900 | 95 | 247,200 | 96.17 |
| 7 | 3 | Groceryland | 33,400 | 98 | 200,000 | 77.80 |
| 8 | 4 | Groceryland | 21,399 | 98 | 165,000 | 64.19 |
| 9 | 5 | Marketbasket | 53,300 | 90 | 400,000 | 155.61 |
| 10 | 6 | Food Country | 50,000 | 90 | 274,800 | 106.90 |
| 11 | 7 | SuperStore | 80,000 | 90 | 279,500 | 108.73 |
| 12 | | | 304,734 | | 1,799,400 | 700 |
| 13 | | | | | 257,057 | |
| 14 | | | | | | |

**Figure 9-10: Total Observed Volume.**

With the release of LOCUS Pro's spread sheet format the store's percent of Market Share (Trade Area Volume) has grown in importance and analysts began to give this performance ranking more weight than the performance per square foot or volume of the store. This can be given an Image formula by using the Trade Area Volume (Observed Volume times draw) and divided by the average for all stores.

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | TA V % |
| 4 | Key | Store | Size | Draw | Volume | TA Vol | Image |
| 5 | 1 | Food Country | 29,735 | 98 | 232,900 | 228,242 | 95.12 |
| 6 | 2 | Food Country | 36,900 | 95 | 247,200 | 234,840 | 97.87 |
| 7 | 3 | Groceryland | 33,400 | 98 | 200,000 | 196,000 | 81.68 |
| 8 | 4 | Groceryland | 21,399 | 98 | 165,000 | 161,700 | 67.39 |
| 9 | 5 | Marketbasket | 53,300 | 90 | 400,000 | 360,000 | 150.03 |
| 10 | 6 | Food Country | 50,000 | 90 | 274,800 | 247,320 | 103.07 |
| 11 | 7 | SuperStore | 80,000 | 90 | 279,500 | 251,550 | 104.83 |
| 12 | | | 304,734 | | 1,799,400 | 1,679,652 | 700 |
| 13 | | | | | 257,057 | 239,950 | |
| 14 | | | | | | | |

**Figure 9-11: Trade Area Volume.**

Food County Map Key 1 achieves a TA (Trade Area) Image of 95.12 which is its average TA Volume of $228,242 per week divided by the model's average of $239,950 times 100.

Recently, another look at overall store performance has been added that establishes a store's trade area $/SF Image. This is calculated by multiplying the store's observed volume times its draw and dividing by its size. This gives you a factor number to be divided by the average factor number for all the stores producing its Trade Area Volume

Image. This is similar to the formula for producing the Observed Volume Image. The factor number for Food Country Map Key 1 is 139.31 and the average factor number is 109.7 as shown in cell (H13). When the math is applied the store receives an Image of 126.99.

| Key | Store | Size | Draw | Volume | TA Vol | $/SF | | TA $/SF Image |
|---|---|---|---|---|---|---|---|---|
| 1 | Food Country | 29,735 | 98 | 232,900 | 228,242 | 7.68 | 139.31 | 126.99 |
| 2 | Food Country | 36,900 | 95 | 247,200 | 234,840 | 6.36 | 115.50 | 105.29 |
| 3 | Groceryland | 33,400 | 98 | 200,000 | 196,000 | 5.87 | 106.50 | 97.08 |
| 4 | Groceryland | 21,399 | 98 | 165,000 | 161,700 | 7.56 | 137.14 | 125.01 |
| 5 | Marketbasket | 53,300 | 90 | 400,000 | 360,000 | 6.75 | 122.58 | 111.74 |
| 6 | Food Country | 50,000 | 90 | 274,800 | 247,320 | 4.95 | 89.77 | 81.83 |
| 7 | SuperStore | 80,000 | 90 | 279,500 | 251,550 | 3.14 | 57.07 | 52.02 |
| | | 304,734 | | 1,799,400 | 1,679,652 | 5.51 | 767.87 | 700 |
| | | | | 257,057 | 239,950 | | 109.7 | |

**Figure 9-12: Trade Area Volume Image.**

For years Analysts have been rating a store's performance by various subjective criteria. Currently such areas as operations, exterior conditions, interior conditions, meat department, produce department, deli department, bakery department and pharmacy department are rated. The rating system used today is: (0) if it is not offered, (1) if poor, (2) if below average, (3) if average, (4) if above average and (5) if excellent.

Even though these areas were rated, we as Analysts had not established an Image for this nor had we incorporated these findings mathematically into our Image ranking process. However, this is possible by totaling the ratings of each store and dividing by the average. This gives an Image for each store relative to store ratings.

Example: Food Country Map Key 1 receives an Image of 75.45 when its rating of 18 is divided by the average ratings of all stores 23.86 (the total in cell (K12) divided by 7) times 100.

| Key | Store | Supermarket Ratings: Ops | Ext | Int | M | P | D | B | RX | Total Pts | Rating Image |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Food Country | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 0 | 18 | 75.45 |
| 2 | Food Country | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 21 | 88.02 |
| 3 | Groceryland | 4 | 3 | 5 | 3 | 4 | 4 | 3 | 4 | 30 | 125.75 |
| 4 | Groceryland | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 | 20 | 83.83 |
| 5 | Marketbasket | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 0 | 24 | 100.60 |
| 6 | Food Country | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 0 | 23 | 96.41 |
| 7 | SuperStore | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 31 | 129.94 |
| | | | | | | | | | | 167 | 700 |
| | | | | | | | | | | 23.86 | |

**Figure 9-13: Store Image relative to Ratings.**

Because this data is now conveniently available with the use of LOCUS Pro, a new rating system using all five of the available performance-based Images can be formulated. This Image Performance Alignment is possibly the best first look or beginning point from which to balance your model.

In summary the Observed Volume, Observed Volume $/SF, Trade Area Volume, Trade Area Volume $/SF and Department Ratings are all important in determining what store deserves the top Image as well as where the other stores in the model should be positioned. The following is an example of this new Image ranking system.

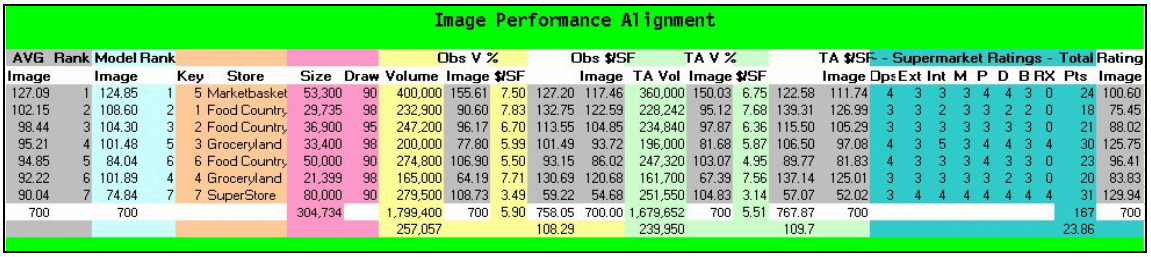


Image Performance Alignment

| AVG Image | Rank | Model Image | Rank | Key | Store | Size | Draw | Obs V % Volume | Obs V % Image | Obs V % $/SF | Obs $/SF Image | TA V % TA Vol | TA V % Image | TA V % $/SF | TA $/SF Image | Dps | Ext | Int | M | P | D | B | RX | Total Pts | Rating Image |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 127.09 | 1 | 124.85 | 1 | 5 | Marketbasket | 53,300 | 90 | 400,000 | 155.61 | 7.50 | 127.20 | 117.46 | 360,000 | 150.03 | 6.75 | 122.58 | 111.74 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 0 | 24 | 100.60 |
| 102.15 | 2 | 108.60 | 2 | 1 | Food Country | 29,735 | 98 | 232,900 | 90.60 | 7.83 | 132.75 | 122.59 | 228,242 | 95.12 | 7.68 | 139.31 | 126.99 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 0 | 18 | 75.45 |
| 98.44 | 3 | 104.30 | 3 | 2 | Food Country | 36,900 | 95 | 247,200 | 96.17 | 6.70 | 113.55 | 104.85 | 234,840 | 97.87 | 6.36 | 115.50 | 105.29 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 21 | 88.02 |
| 95.21 | 4 | 101.48 | 5 | 3 | Groceryland | 33,400 | 98 | 200,000 | 77.80 | 5.99 | 101.49 | 93.72 | 196,000 | 81.68 | 5.87 | 106.50 | 97.08 | 4 | 3 | 5 | 3 | 4 | 4 | 3 | 4 | 30 | 125.75 |
| 94.85 | 5 | 84.04 | 6 | 6 | Food Country | 50,000 | 90 | 274,800 | 106.90 | 5.50 | 93.15 | 86.02 | 247,320 | 103.07 | 4.95 | 89.77 | 81.83 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 0 | 23 | 96.41 |
| 92.22 | 6 | 101.89 | 4 | 4 | Groceryland | 21,399 | 98 | 165,000 | 64.19 | 7.71 | 130.69 | 120.68 | 161,700 | 67.39 | 7.56 | 137.14 | 125.01 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 | 20 | 83.83 |
| 90.04 | 7 | 74.84 | 7 | 7 | SuperStore | 80,000 | 90 | 279,500 | 108.73 | 3.49 | 59.22 | 54.68 | 251,550 | 104.83 | 3.14 | 57.07 | 52.02 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 31 | 129.94 |
| 700 | | 700 | | | | 304,734 | | 1,799,400 | 700 | 5.90 | 758.05 | 700.00 | 1,679,652 | 700 | 5.51 | 767.87 | 700 | | | | | | | | | 167 | 700 |
| | | | | | | | | 257,057 | | | 108.29 | | 239,950 | | | 109.7 | | | | | | | | | | 23.86 | |

**Figure 9-14: Final Trade Area Volume Image.**


Image Performance Alignment is a new starting point for balancing models. It has been proven to be especially useful in balancing large, cumbersome models. When refined with the additional criteria analysts unearth during their fieldwork, a superior balanced model is attained.

**Figure 9-15: Image Performance Alignment Menu Location.**

# Index

# Glossary

**Actual Volume** — See *Draw*.

**Balance** — The process of examining your model and making necessary adjustments to make it accurately represent your marketplace.

**Barrier** — An obstacle that restricts travel from one area to another. See also *Standard Barrier* and *Weighted Barrier.*

**Correlation** — A statistical term which is used to measure the degree to which one set of numbers is related to another.

**Crosspoint** — Specific points on a barrier from which distances are calculated. A crosspoint is likened to a bridge across a river; you can only cross wherever a crosspoint is defined.

**Curve** — The measurement of a facility's pulling power, or its ability to attract customers over distance.

**Database** — A set of data fundamental to a system, organized for rapid search and retrieval by a computer.

**Dot Count** — A count of the number of customers in a sector that shop at a specified facility.

**Draw** — The percent of a facility's total business that is derived from the trade area.

**End Point** — Either of two points that mark the ends of a barrier.

**Even Float** — An equal float percentage assigned to every sector. The sum of the float for all sectors equals the total float calculated for the trade area.

**Expansion** — To print a graphic representation of an enlarged portion of the trade area.

**Expenditure** — See *Per Capita Expenditure (PCE).*

**Factual Data** — Information that is verifiable, such as facility location and size; sector location, size and population; and barriers.

**Fcst.txt File** — File which holds forecast information. To save a new forecast, make desired changes in the forecast grid in the **Forecast** folder, then click on the **File** pull down menu and choose **Save Forecast Info to fcst.txt**. (Note: The first four lines in the **Forecast** folder cannot be permanently changed.)

**Fit** — The process of matching each facility's supply with the surrounding demand; one way is to align the market share with the customer spotting.

**Float** — The percent of the potential within an area that is not captured by the facilities identified. It is also called leakage.

**Image** — A ranking number for each facility as determined by the model in **Balance** mode. It represents the acceptability of the facility to the people within the trade area.

**Latitude, Longitude** — The x and y axes that pinpoint the physical location of a facility, sector or barrier on the grid.

**Leakage** — See *Float*.

**LOCUS** — Location Under Simulation.

**Locus.sys File** — First file read by LOCUS™ Pro at startup; contains all the default values for the **Header Info** and **Project Info** folders. To change the defaults, make desired changes in the **Header Info** and **Project Info** folders, click on the **File** pull down menu, and choose **Save Header Info to Locus.sys**.

**Log Float** — A float percentage based on the amount of pulling power exerted on a sector by all facilities in the trade area. Sectors feeling the greatest amount of pull from the facilities in the trade area have the least amount of float assigned.

**Map Key** — The unique numerical reference used to identify the facility, sector or barrier within this data set.

**Map Scale** — The miles per inch or kilometer per centimeters ratio used when measuring the map, and when modeling the study area.

**Market Share** — The percent of business dollars obtained from the total available in a given area.

**Model** — A computerized system used to mathematically simulate a retail market.

**Model Radius** The default radius assigned to the model when you are setting up your database. See also *Radius*.

**Modified Float** A float percentage based on the distance between a sector and the facility nearest to that sector. The greater the distance between a sector and its closest facility, the greater the float assigned to that sector.

**Node** The point within a sector that optimizes the origin of the shopping trip for the population.

**Override** A value that you assign to a specific facility/sector combination that enables you to balance the model.

**Parameters** Independent variables that are given constant values for specified applications.

**Path** A visual representation of the distance between a facility and a sector.

**Per Capita Expenditure (PCE)** The expenditure per person for food as of the date of the field work. In **Tactics** mode, this figure adjusts to reflect inflation.

**Potential** The total amount of money available to the facilities. The formula is population times PCE.

**Projection** An estimate of future possibilities based on a current trend.

**Pulling Power** The attraction a store exerts upon the population.

**Radius** The extent of the influence of a facility's curve.

**Reach** The perceived distance that a sector's population will travel to go to a facility.

**Reference Data** Optional information that does not affect the model, such as project number, analyst name, client name and comments.

**Sales Area** The interior floor space of the facility, in square feet or square meters, that the customer can access.

**Sector** A segment of the study area, defined by population.

**Side Point** A reference point that the user identifies on one side of the barrier. The program will assign Weight 1 to this side of the barrier.

**Simulation** The process of assuming under test conditions phenomena likely to occur in actual performance.

| | |
|---|---|
| **Sister Pair** | A set of two stores so similar that a consumer has little reason to travel past one to shop at the other. LOCUS™ Pro creates a psychological barrier between the stores, which in effect increases the distance between a consumer and the farthest sister pair. |
| **Site** | The space of ground occupied or to be occupied by a facility. |
| **Standard Barrier** | A barrier with no weights and between one and ten crosspoints. |
| **Study Area** | The area covered by this model of which a study is made. The study area consists of a trade area or areas made up of sectors. |
| **Subjective Data** | Information supplied by the analyst that must fall within a predefined range. This information (curve, image, radius and PCE) affects the model. |
| **Tactics** | Methods that you will use to create your market strategy. You arrive at these methods by running simulations of your model and analyzing the results. |
| **Total Area** | The total square feet or square meters of the facility. |
| **Trade Area** | The area that contains the population that could contribute to the sales of a facility or facilities located at a proposed site or sites. |
| **Transcript** | A list of comments you have made about this model. |
| **Type** | A classification you assign to an outlet based on standard facility characteristics. |
| **Volume** | The total sales attributed to the area of the facility being modeled. |
| **Weighted Barrier** | A barrier that has a "weight" specified for each side which influences the distance calculation between a sector and facility. |

# Conversion Charts

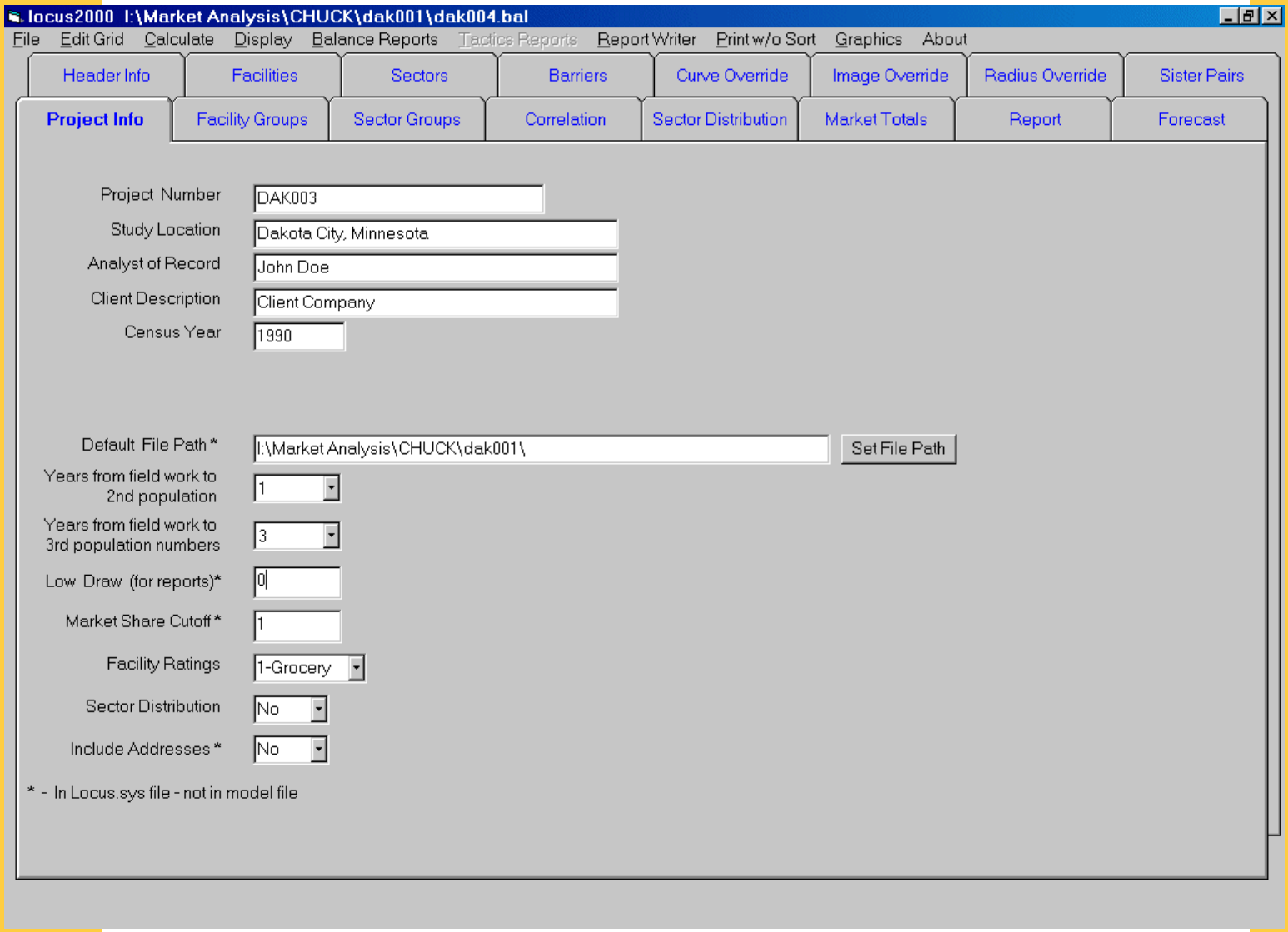
| LOCUS™ Pro BALANCE REPORTS | "OLD" LOCUS™ COMMAND |
|---|---|
| Trade Area Totals | LI MO TO |
| Stores in Operation | LI FA BR* |
| Sector Summary | LI SE VA* |
| Facility Market Share by Sector | LI FA TA MA* |
| Store Volume by Sector | LI FA VO (Store #) |
| Chain Summary | LI CH TO |
| Market Shares by Distance | LI FA VO (Store #) |
| Correlation Report | LI CO AN (Store #) |
| Competitor Information | Used LOCUS™ Utilities |
| Competitor Scorecard | Not Available |
| Trade Area Data by Sector | Used LOCUS™ Utilities |
| List Facility Sales | LI FA SA* |

| LOCUS™ Pro TACTICS REPORTS | "OLD" LOCUS™ COMMAND |
|---|---|
| Market Totals | LI MO TO |
| Projected Marketplace | LI FA SA* |
| Chain Summary | LO CH TO* |
| Facility Market Share by Sector | LI FA TA MA* |
| Store Volume by Sector | LI FA VO (Store #) |
| Market Shares by Distance | LI FA AN |
| Growth Pattern | LO FA FO NE (Store #) |
| What If | LI FA What_If |
| Direct Distance to Sectors | Not Available |
| Direct Distance to Competitors | Not Available |
| Basis of Sales | LO FA BA SA |
| Quarters | LI FA FO |

| | LOCUS™ Pro REPORT WRITER BALANCE REPORTS | "OLD" LOCUS™ COMMAND |
|---|---|---|
| B1 | Trade Area Totals | LO MO TO |
| B2 | Stores In Operation | LI FA BR* |
| B3 | Sector Summary | LI SE VA* |
| B4 | Facility Market Share by Sector | LI FA TA MA* |
| B5 | Store Volume Report by Sector | LI FA VO |
| B6 | Chain Summary | LI CH TO |
| B7 | Market Share by Distance | LO FA AN |
| B8 | Correlation Report | LI CO AN |
| B9 | Chain Market Share By Sector | Not Available |

| | LOCUS™ Pro REPORT WRITER TACTICS REPORTS | "OLD" LOCUS™ COMMAND |
|---|---|---|
| T1 | Market Totals | LO MO TO |
| T2 | Projected Marketplace | LI FA SA* |
| T3 | Chain Summary | LO CH TO* |
| T4 | Facility Market Share by Sector | LI FA TA MA* |
| T5 | Facility Market Share | LI FA MA |
| T6 | Store Volume by Sector | LI FA TA SA |
| T7 | Market Share by Distance | LI FA AN |
| T8 | Growth Pattern | LO FA FO |
| T9 | Chain Market Share by Sector | Not Available |
| T10 | Three Year Growth Pattern | LO FA FO |
| T11 | Projected Marketplace Selected Facility | LI FA SA |
| T12 | Basis of Sales | LI FA BA |
| T13 | Quarters | LI FA FO |

## LOCUS Pro FEBRUARY 2001 UPDATE

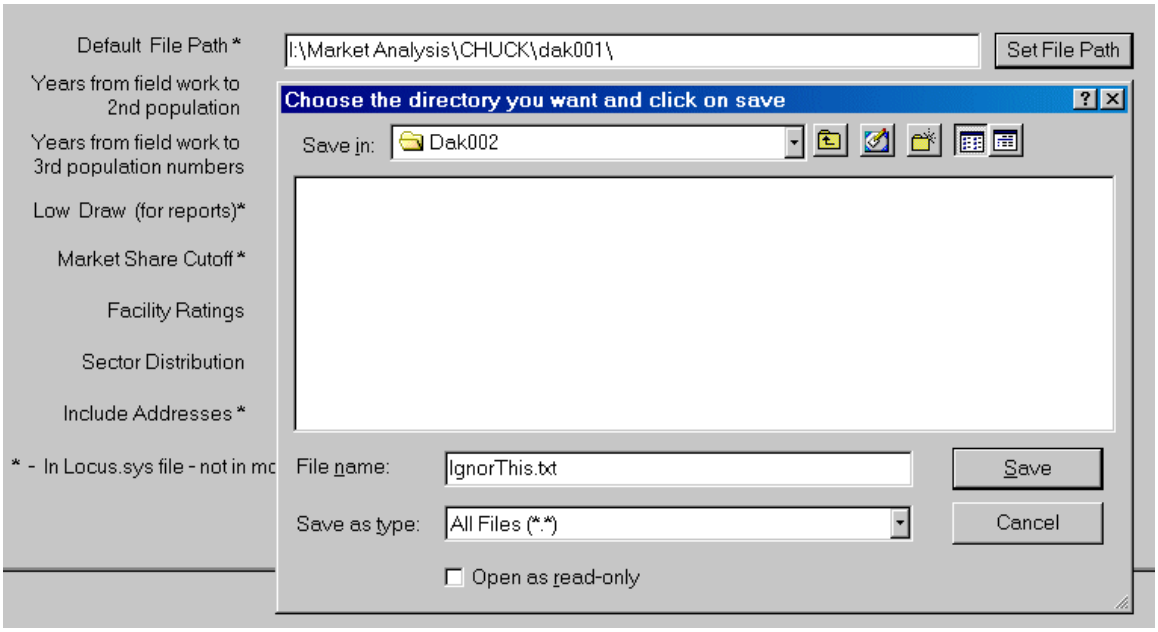



# Project File Folder

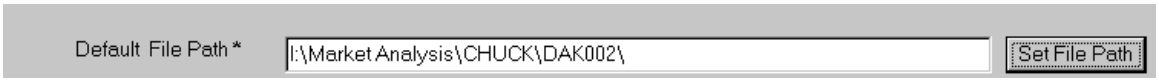
Default File Path is saved in Pull Down Menu Locus.sys file

## To Change Default File Path


Click on Set File Path

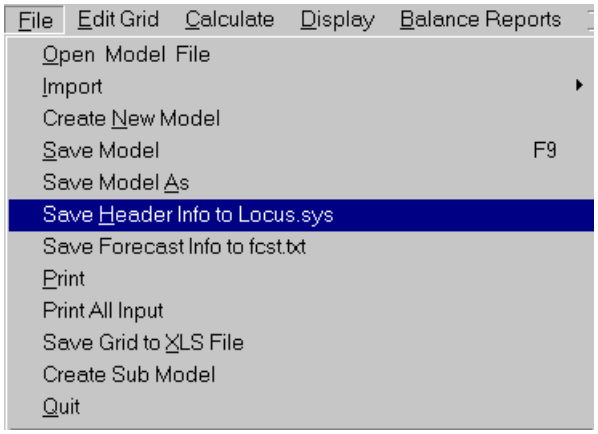



And then Choose the directory you want appears.
Locate the new file folder (Dak002) and save




Now you have the new path set.

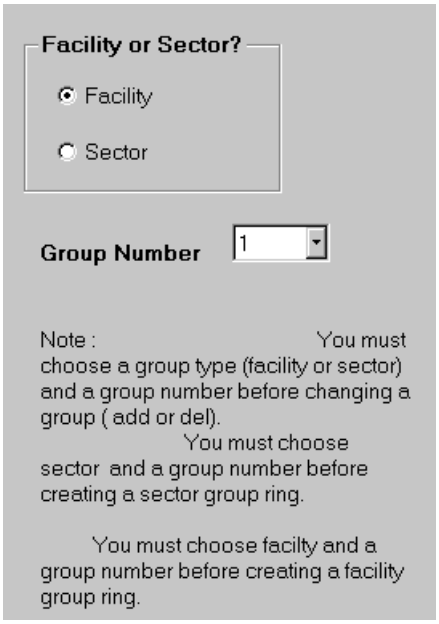
To make Locus Pro always open here, save the Locus.sys file from the pull down menu

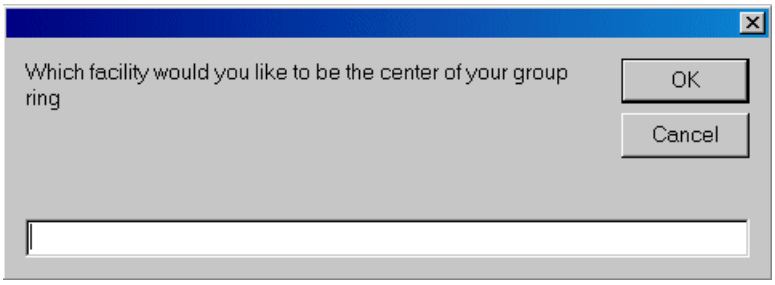


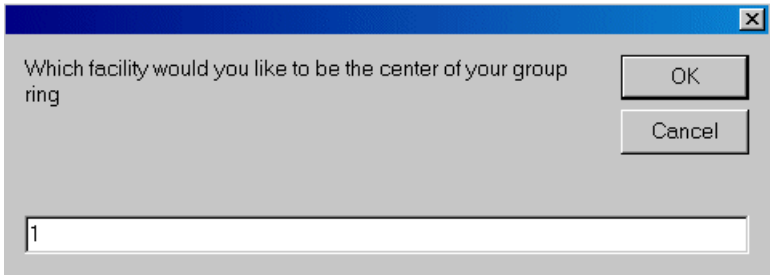

By doing this your Locus Pro program will be set to this default setting

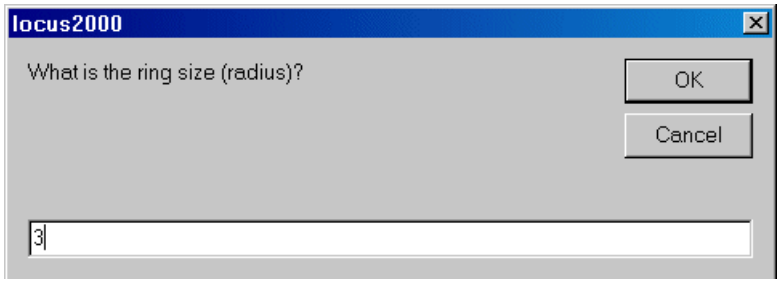
# Create Facility Rings in Display Groups

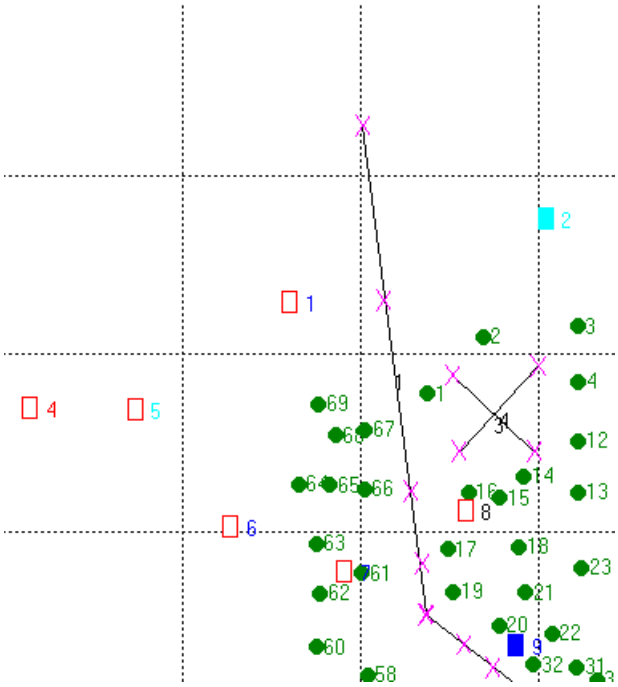
This will enables Locus Pro users to create Facility Groups that are within designated distances. You may add of subtract from the facility group. Always save your groups before going on to next step.



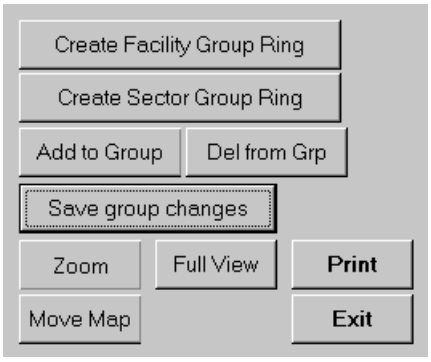






Display Group

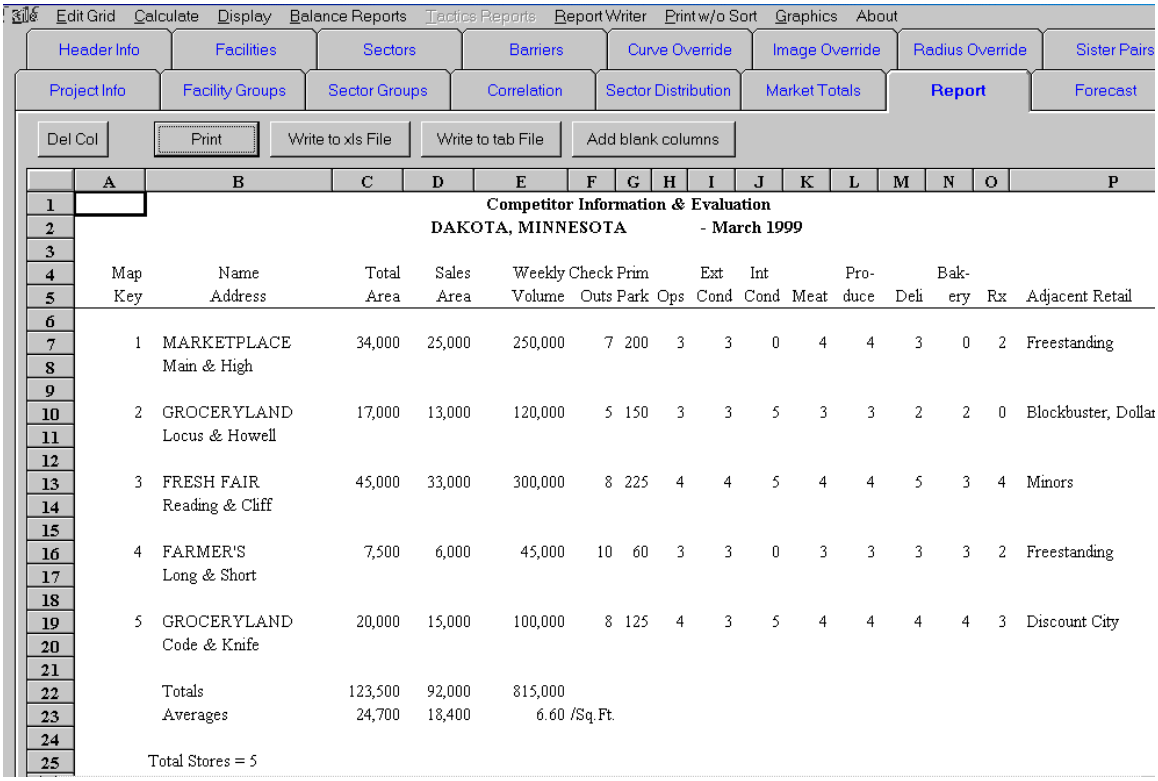




This new feature will help in micro modeling with in larger models.
You can use this for most facility reports including Competitor Information.

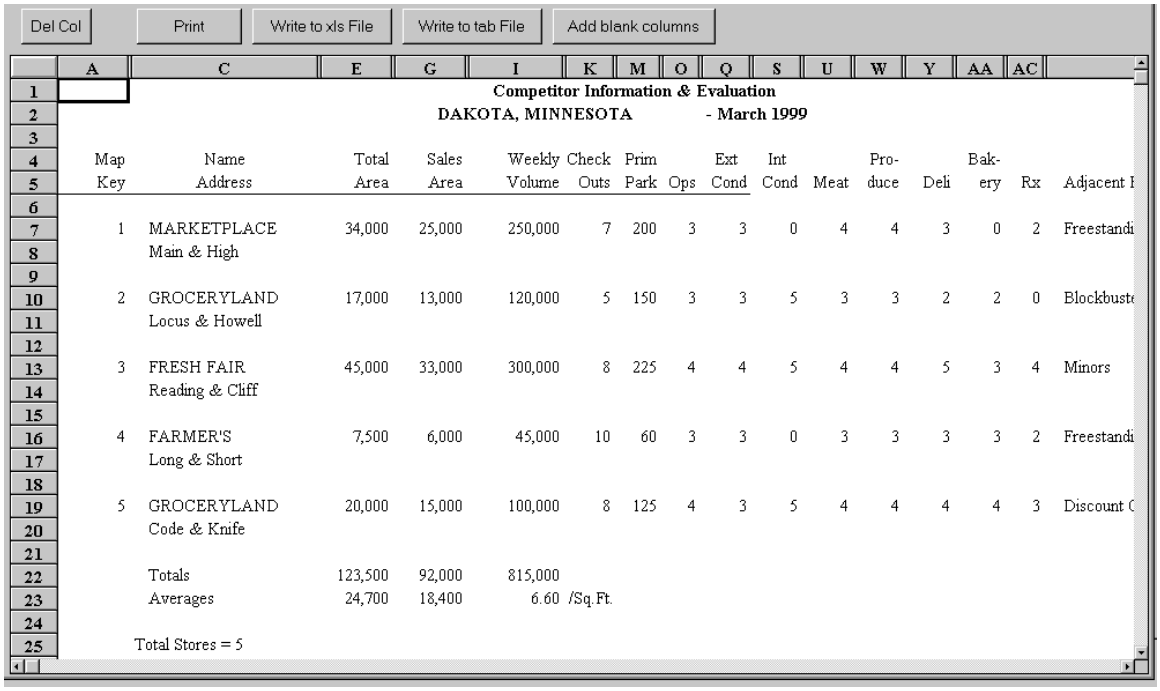
## Add Columns to reports

Click on Add blank columns




| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | Competitor Information & Evaluation | | | | | | | | | | | |
| 2 | | | | | DAKOTA, MINNESOTA - March 1999 | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | Map | Name | Total | Sales | Weekly | Check | Prim | | Ext | Int | | Pro- | | Bak- | | |
| 5 | Key | Address | Area | Area | Volume | Outs | Park | Ops | Cond | Cond | Meat | duce | Deli | ery | Rx | Adjacent Retail |
| 6 | | | | | | | | | | | | | | | | |
| 7 | 1 | MARKETPLACE | 34,000 | 25,000 | 250,000 | 7 | 200 | 3 | 3 | 0 | 4 | 4 | 3 | 0 | 2 | Freestanding |
| 8 | | Main & High | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | 2 | GROCERYLAND | 17,000 | 13,000 | 120,000 | 5 | 150 | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 0 | Blockbuster, Dollar |
| 11 | | Locus & Howell | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | |
| 13 | 3 | FRESH FAIR | 45,000 | 33,000 | 300,000 | 8 | 225 | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 4 | Minors |
| 14 | | Reading & Cliff | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | |
| 16 | 4 | FARMER'S | 7,500 | 6,000 | 45,000 | 10 | 60 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 2 | Freestanding |
| 17 | | Long & Short | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | |
| 19 | 5 | GROCERYLAND | 20,000 | 15,000 | 100,000 | 8 | 125 | 4 | 3 | 5 | 4 | 4 | 4 | 4 | 3 | Discount City |
| 20 | | Code & Knife | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | |
| 22 | | Totals | 123,500 | 92,000 | 815,000 | | | | | | | | | | | |
| 23 | | Averages | 24,700 | 18,400 | 6.60 /Sq.Ft. | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | |
| 25 | | Total Stores = 5 | | | | | | | | | | | | | | |

A column is added between each column. This helps in proper spacing when using Excel for final reports.




| | A | C | E | G | I | K | M | O | Q | S | U | W | Y | AA | AC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | Competitor Information & Evaluation | | | | | | | | | | |
| 2 | | | | | DAKOTA, MINNESOTA - March 1999 | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| 4 | Map | Name | Total | Sales | Weekly | Check | Prim | | Ext | Int | | Pro- | | Bak- | | |
| 5 | Key | Address | Area | Area | Volume | Outs | Park | Ops | Cond | Cond | Meat | duce | Deli | ery | Rx | Adjacent I |
| 6 | | | | | | | | | | | | | | | |
| 7 | 1 | MARKETPLACE | 34,000 | 25,000 | 250,000 | 7 | 200 | 3 | 3 | 0 | 4 | 4 | 3 | 0 | 2 | Freestandi |
| 8 | | Main & High | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | |
| 10 | 2 | GROCERYLAND | 17,000 | 13,000 | 120,000 | 5 | 150 | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 0 | Blockbust |
| 11 | | Locus & Howell | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | |
| 13 | 3 | FRESH FAIR | 45,000 | 33,000 | 300,000 | 8 | 225 | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 4 | Minors |
| 14 | | Reading & Cliff | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | |
| 16 | 4 | FARMER'S | 7,500 | 6,000 | 45,000 | 10 | 60 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 2 | Freestandi |
| 17 | | Long & Short | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | |
| 19 | 5 | GROCERYLAND | 20,000 | 15,000 | 100,000 | 8 | 125 | 4 | 3 | 5 | 4 | 4 | 4 | 4 | 3 | Discount C |
| 20 | | Code & Knife | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | |
| 22 | | Totals | 123,500 | 92,000 | 815,000 | | | | | | | | | | |
| 23 | | Averages | 24,700 | 18,400 | 6.60 /Sq.Ft. | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | |
| 25 | | Total Stores = 5 | | | | | | | | | | | | | |

Notice the small gaps between numbered columns (spacing is .50).

# Sister Pairs

A Sister Pair is a set of two stores that are so similar that there would be very little reason for a consumer to go past one to shop at the other. The Locus Pro program creates a psychological barrier between the stores. This has the effect of increasing the distance between a consumer and one of the sister pair if the consumer is closer to the other.

The user provides 4 pieces of information;

1 - facility 1
2 - facility 2
3 - strength 1
4 - strength 2

To visualize the sister barrier that is created, draw a line from facility 1 to facility 2. Find the midpoint of the line and spin the line 90 degrees.

If the path from a sector to one of the sister store passes through its sister barrier then the distance used for pulling power calculations is modified. If you are going from a sector on facility 1's side of the barrier to facility 2 and the direct path from the sector to facility 2 intersects the sister barrier, you multiply the distance from the sector to the barrier by strength 1and add that distance to the actual distance of the path from the sector to facility 2.

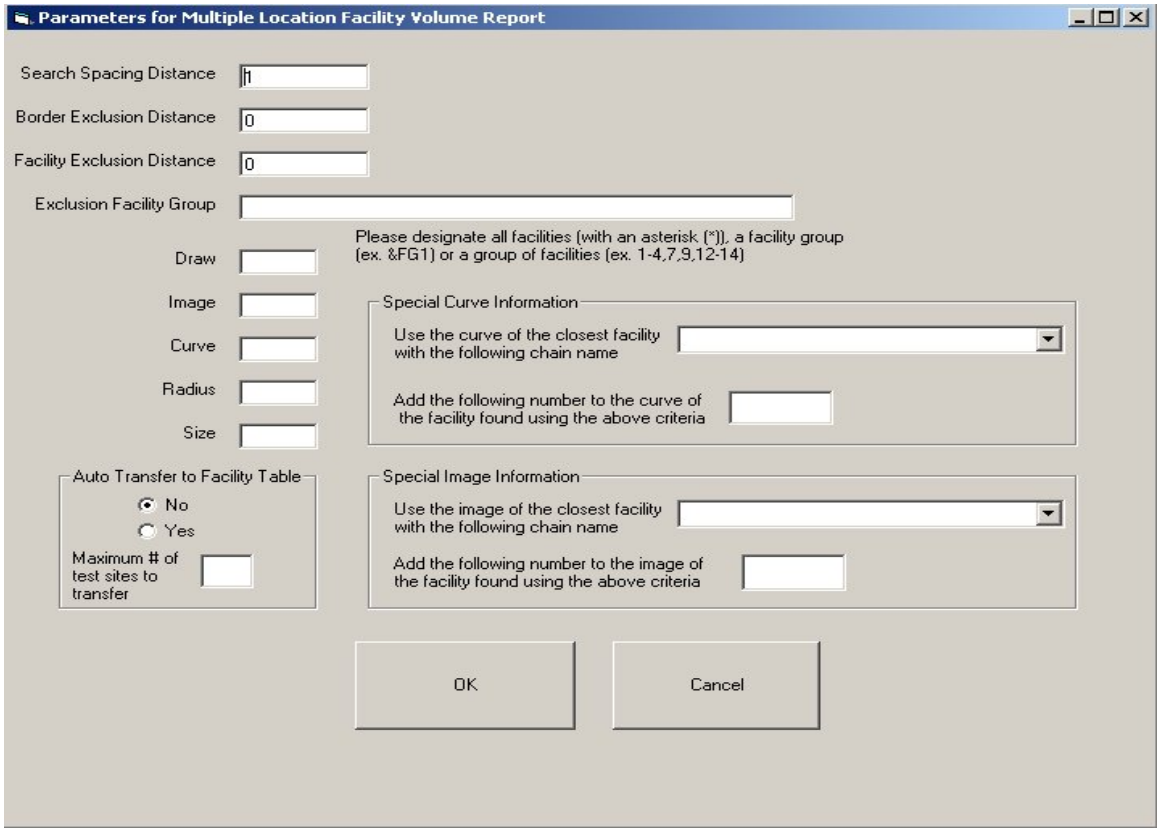
If both facilities have 0 strength the sister pair's only effect would be making the program run slower.

## Multiple Location Facility Volume Report

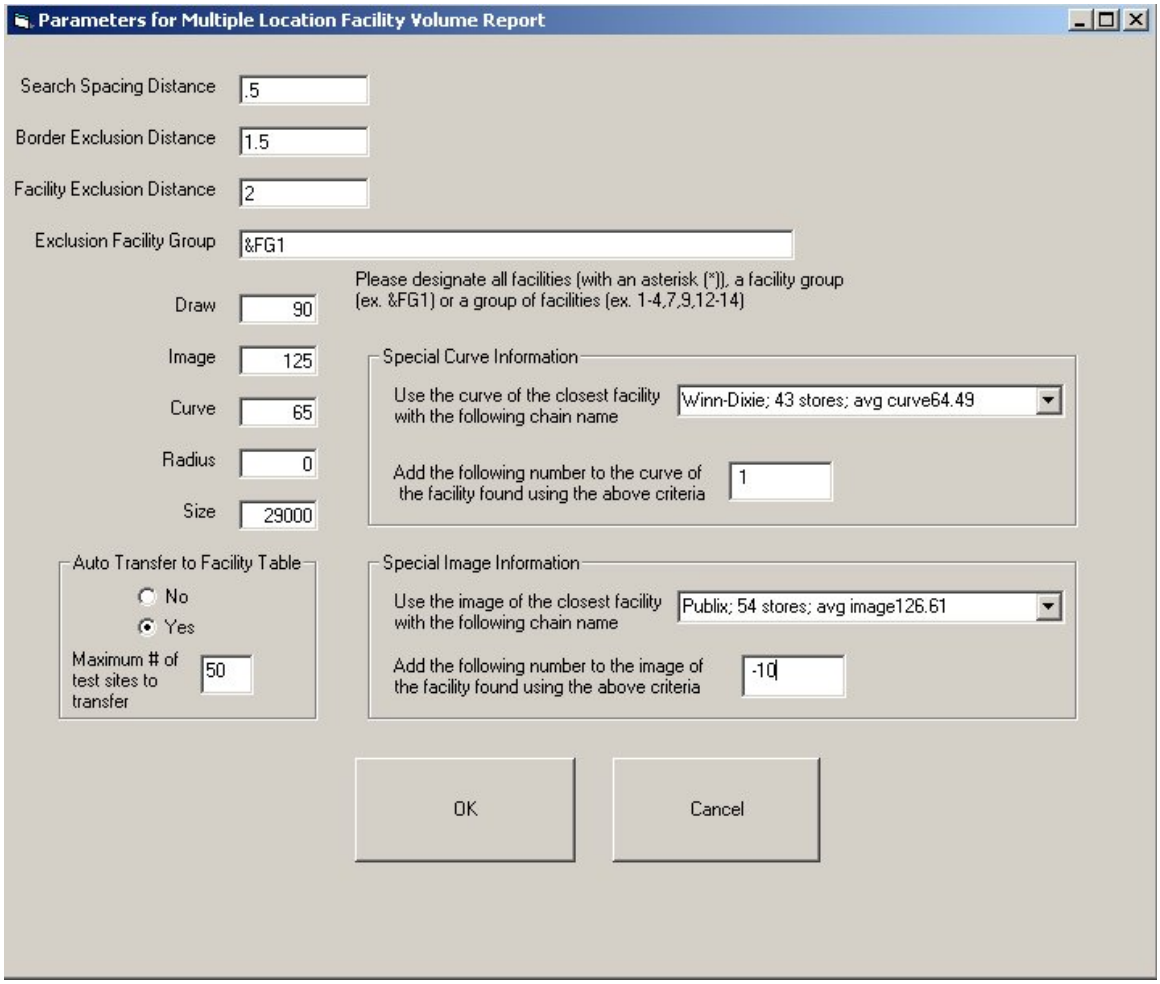
This report is utilized primarily in metro studies. It is a report tool used to direct the user to the areas within the trade area that on the surface, show the most potential for adding a store or stores. It performs sales calculations for potential locations individually throughout the trade area in a grid like manner. The distance spacing between each test site is user selected. A greater spread will improve processor speed, however there is less detail. The user can request that the best test store locations be transferred to the facility grid. From there, the test locations are opened so the locations can be assessed in the Display Path screen.

The user provides the following information:

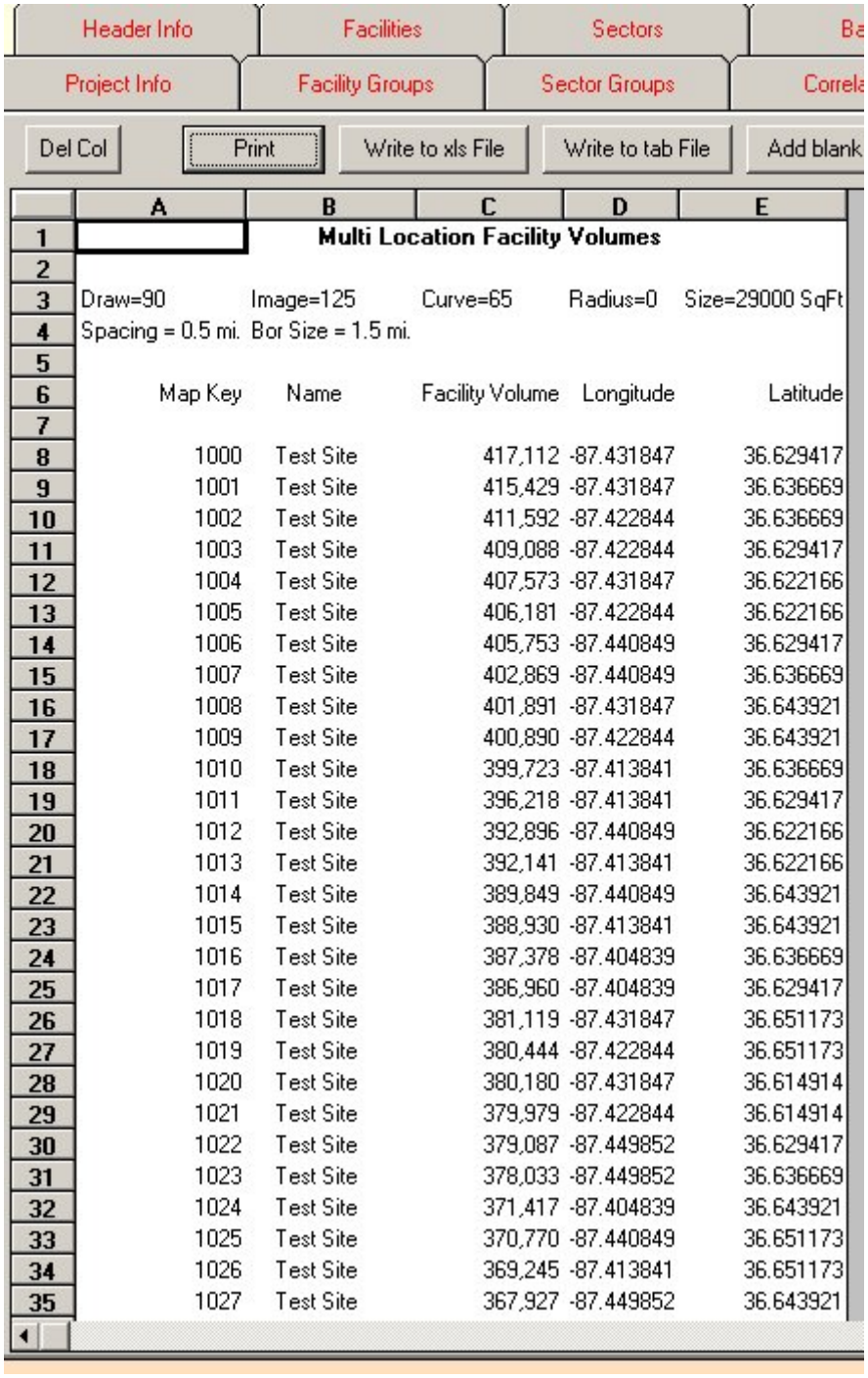
1 – Search Spacing Distance- Mile spacing of each test store
2 – Border Exclusion distance- Mile distance not tested from Locus node border
3 – Facility Exclusion Distance- Mile distance not tested from selected store groups
4 – Exclusion Facility Group
5 – Draw
6 – Image
7 – Curve
8 – Radius- Zero is default radius
9 – Size
10– Auto Transfer- Top test stores are sorted and will transfer to facility grid, Test Store 1000 is always the highest volume.
11– Special Curve Information- The test store will take on the relative curve of the closest store within a selected chain. This is optional.
12 – Special Image Information- The test store will take on the relative image of the closest store within a selected chain. This is optional.




Screen with parameters filled in.




Once all parameters are filled in, process the report. This can take seconds or minutes to process depending upon the size of the trade area and spacing of test sites. The resulting report is sorted with volume in descending order.




**Multi Location Facility Volumes**

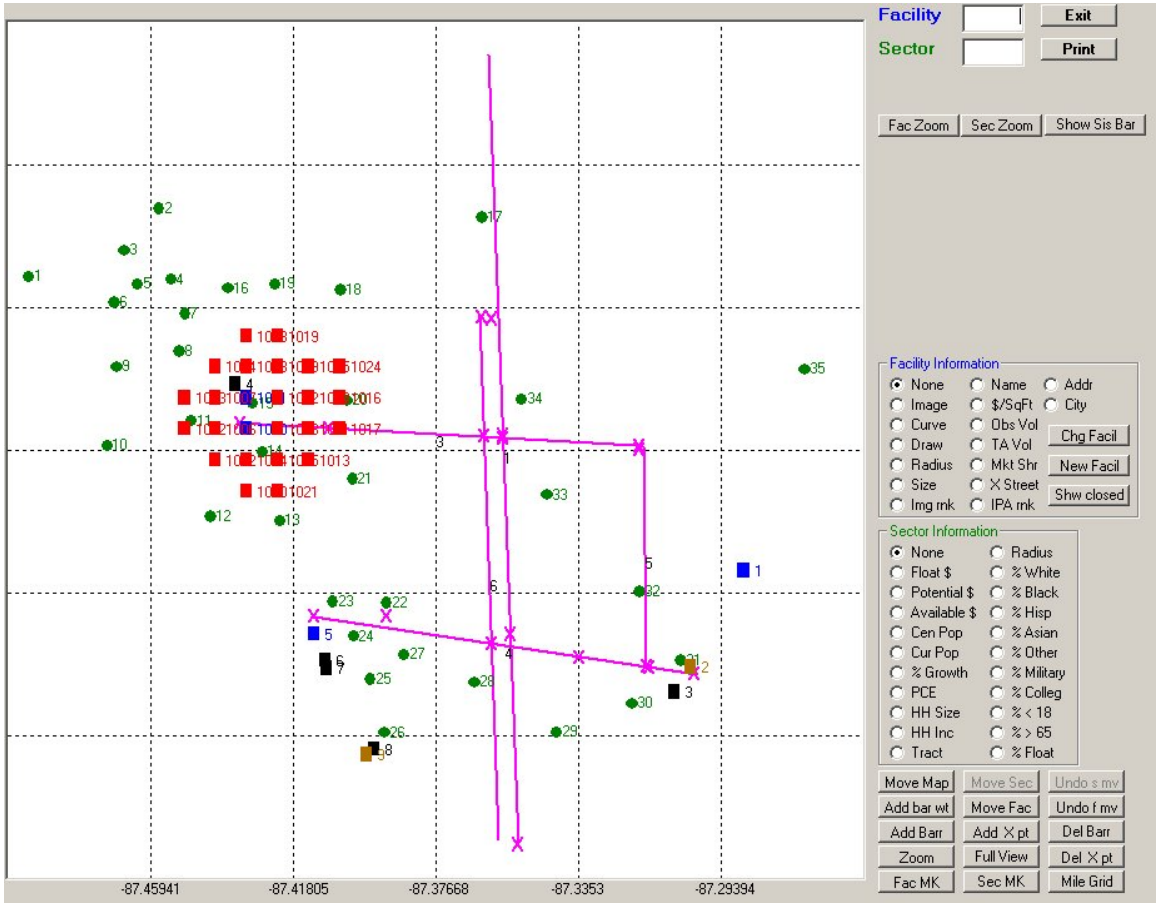
Draw=90 Image=125 Curve=65 Radius=0 Size=29000 SqFt
Spacing = 0.5 mi. Bor Size = 1.5 mi.

| Map Key | Name | Facility Volume | Longitude | Latitude |
|---|---|---|---|---|
| 1000 | Test Site | 417,112 | -87.431847 | 36.629417 |
| 1001 | Test Site | 415,429 | -87.431847 | 36.636669 |
| 1002 | Test Site | 411,592 | -87.422844 | 36.636669 |
| 1003 | Test Site | 409,088 | -87.422844 | 36.629417 |
| 1004 | Test Site | 407,573 | -87.431847 | 36.622166 |
| 1005 | Test Site | 406,181 | -87.422844 | 36.622166 |
| 1006 | Test Site | 405,753 | -87.440849 | 36.629417 |
| 1007 | Test Site | 402,869 | -87.440849 | 36.636669 |
| 1008 | Test Site | 401,891 | -87.431847 | 36.643921 |
| 1009 | Test Site | 400,890 | -87.422844 | 36.643921 |
| 1010 | Test Site | 399,723 | -87.413841 | 36.636669 |
| 1011 | Test Site | 396,218 | -87.413841 | 36.629417 |
| 1012 | Test Site | 392,896 | -87.440849 | 36.622166 |
| 1013 | Test Site | 392,141 | -87.413841 | 36.622166 |
| 1014 | Test Site | 389,849 | -87.440849 | 36.643921 |
| 1015 | Test Site | 388,930 | -87.413841 | 36.643921 |
| 1016 | Test Site | 387,378 | -87.404839 | 36.636669 |
| 1017 | Test Site | 386,960 | -87.404839 | 36.629417 |
| 1018 | Test Site | 381,119 | -87.431847 | 36.651173 |
| 1019 | Test Site | 380,444 | -87.422844 | 36.651173 |
| 1020 | Test Site | 380,180 | -87.431847 | 36.614914 |
| 1021 | Test Site | 379,979 | -87.422844 | 36.614914 |
| 1022 | Test Site | 379,087 | -87.449852 | 36.629417 |
| 1023 | Test Site | 378,033 | -87.449852 | 36.636669 |
| 1024 | Test Site | 371,417 | -87.404839 | 36.643921 |
| 1025 | Test Site | 370,770 | -87.440849 | 36.651173 |
| 1026 | Test Site | 369,245 | -87.413841 | 36.651173 |
| 1027 | Test Site | 367,927 | -87.449852 | 36.643921 |

Top Test sites auto transferred to facility grid. Calculate Open these test sites and then view their positions in Display Path.

| | key | name | obs vol | $/sqft | calc vol | $/sqft | ta dif | sqft | draw | image | i-rank | IPA | curve | radius | mktshr | %facvol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | Wal-Mart SC | 560,000 | 11.91 | | | | 47,000 | 30 | 142.30 | 2 | 2 | 48.00 | 0.00 | | |
| 2 | 2.00 | Kroger | 275,000 | 6.06 | | | | 45,400 | 50 | 114.55 | 3 | 3 | 55.00 | 0.00 | | |
| 3 | 3.00 | Best Food | 25,000 | 3.57 | | | | 7,000 | 40 | 61.18 | 9 | 9 | 65.00 | 0.00 | | |
| 4 | 4.00 | Piggly Wiggly | 65,000 | 7.39 | | | | 8,800 | 90 | 91.41 | 5 | 5 | 78.00 | 1.00 | | |
| 5 | 5.00 | Cub Foods | 625,000 | 13.30 | | | | 47,000 | 80 | 143.00 | 1 | 1 | 55.00 | 0.00 | | |
| 6 | 6.00 | Aldi | 60,000 | 6.52 | | | | 9,200 | 60 | 90.00 | 6 | 6 | 59.00 | 0.00 | | |
| 7 | 7.00 | Food Lion | 70,000 | 3.08 | | | | 22,700 | 60 | 82.07 | 7 | 7 | 71.00 | 0.00 | | |
| 8 | 8.00 | Save A Lot | 55,000 | 4.74 | | | | 11,600 | 25 | 74.10 | 8 | 8 | 65.00 | 0.00 | | |
| 9 | 9.00 | Winn-Dixie | 325,000 | 7.30 | | | | 44,500 | 25 | 101.39 | 4 | 4 | 59.00 | 0.00 | | |
| 10 | 1000.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 11 | 1001.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 12 | 1002.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 13 | 1003.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 14 | 1004.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 15 | 1005.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 16 | 1006.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 17 | 1007.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 18 | 1008.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 19 | 1009.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 20 | 1010.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 21 | 1011.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 22 | 1012.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 23 | 1013.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 24 | 1014.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 25 | 1015.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 26 | 1016.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 27 | 1017.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 28 | 1018.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 29 | 1019.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 30 | 1020.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 31 | 1021.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 32 | 1022.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 33 | 1023.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |
| 34 | 1024.00 | Test Site | 0 | 0.00 | | | | 29,000 | 90 | 120.00 | 0 | 0 | 65.00 | 0.00 | | |

Display Path with top 25 stores showing a definite pattern of high potential targets. From here, the user takes this information to validate it as an individual site. What is a valid draw, curve, and image for the individual test store? Road network, population density, chain competition, retail in area, demographics, etc need to be factored in.



Same trade area but with 150 test sites transferred. Notice test store grid pattern and border exclusion inside of outermost nodes or barriers on each side of the geography. This is what Locus uses as its border and is always in a rectangular shape. User controls spacing and exclusion areas.