

**COMPUTERS IMPACT ON DECISION-MAKING  
CASE STUDY: SALEM HOUSING TASK FORCE**

by

MARTHA A. GOLDSTEIN

Presented to the Public Administration Faculty  
at the University of Michigan-Flint  
in partial fulfillment of the requirements for the  
Master of Public Administration Degree

1995

First Reader:

Albert Price

Second Reader:

Patricia Howard

---

## TABLE OF CONTENTS

|                  |   |      |
|------------------|---|------|
| <b>SECTION 1</b> | Introduction .....                          | 1    |
|                  | Hypothesis .....                            | 6    |
| <b>SECTION 2</b> | Case Study.....                             | 8    |
| <b>SECTION 3</b> | Application Design .....                    | 13   |
| Step One         | Identification of Funding Sources .....     | 13   |
| Step Two         | Grant Fund Activities.....                  | 14   |
| Step Three       | Identification of Computer Components ..... | 14   |
| Step Four        | Designing Tables .....                      | 17   |
| Step Five        | Designing Forms .....                       | 20   |
| Step Six         | Designing Reports.....                      | 21   |
| Step Seven       | Designing Labels.....                       | 25   |
| Step Eight       | Designing the Application.....              | 26   |
| Step Nine        | Training Manual Development .....           | 26   |
| Step Ten         | Development of Manual Forms .....           | 27   |
| <b>SECTION 4</b> | Implementation.....                         | 27   |
| <b>SECTION 5</b> | Advertising.....                            | 27   |
| <b>SECTION 6</b> | Comparison To ICMA Survey.....              | 28   |
| <b>SECTION 7</b> | Conclusion .....                            | 30   |
| <b>SECTION 8</b> | Bibliography .....                          | 32   |
| <b>SECTION 9</b> | Appendices                                  |      |
| Appendix 1       | Maps of Salem Housing Task Force .....      | 1-1  |
| Appendix 2       | Spectacular Data Dictionary.....            | 2-1  |
|                  | Sample Pop-Up .....                         | 2-2  |
| Appendix 3       | Spectacular Data Entry Screens .....        | 3-1  |
| Appendix 4       | Spectacular Data Reports .....              | 4-1  |
| Appendix 5       | Spectacular Data Mailing Labels.....        | 5-1  |
| Appendix 6       | Spectacular Data Flow Chart .....           | 6-1  |
|                  | Spectacular Data Menu's .....               | 6-2  |
| Appendix 7       | Sample of Training Manual .....             | 7-1  |
| Appendix 8       | Sample of Entry Forms.....                  | 8-1  |
| Appendix 9       | Sample House Inspection Form .....          | 9-1  |
| Appendix 10      | Sample Brochure.....                        | 10-1 |

---

# **COMPUTERS' IMPACT ON DECISION MAKING**

## **CASE STUDY: SALEM HOUSING TASK FORCE**

**Written by: Martha A. Goldstein, BA**

"Making a difference, one house at a time," is more than just a cute phrase. Non-profit Housing Authorities are the best resource low income families have to help them improve their present living conditions. This thesis has unique aspects. Although an hypothesis was developed and conclusions were drawn, the thesis was developmental with an actual computer software program designed as an end result of research. The developer of the program was also the writer of the thesis. The challenge was not only in evaluating how computers could impact decision making, but also in designing a system for an organization to assist in making better decisions. Some traditional thesis activities did occur. There was a literature review, an hypothesis was formed, and conclusions were drawn. Additional requirements were developed for this research. The computer software was designed, a training manual was written, reporting capabilities were into the system, and the training of staff members was accomplished.

### **INTRODUCTION**

In 1988, a National Housing Task Force was established by the United States Congress to develop a better understanding of the needs of low income persons. This Task Force was comprised of 26 individuals with diverse experiences in housing related issues. The task force consisted of bankers, businesses, community service persons, and governmental agencies. The Task Force was commissioned to develop a new national housing agenda. The focus was

low-income people and their ability to access safe and affordable housing.

The Task Force looked at all aspects of affordable housing. They looked at the full spectrum of issues that effect low income families; from the homeless, to renters and homeowners. Their goal was to give guidance to federal, state and local governments for the purpose of increasing the supply of decent housing and the re-establishment of declining neighborhoods.

---

The Task Force wrote a report entitled "**A Decent Place to Live.**" The report painted a grim picture of the state of housing in the United States. To envision a person living in squalor is very difficult for many people to confront, but that is the reality. "Millions of people pay too much for housing, in many cases from 50 to 70 percent of their incomes (Interwoven, 10)." When a person has to spend almost 50% of their income to pay for housing for their family, they often resort to unsanitary living conditions; overcrowded apartments, abandon buildings and vehicles.

"**A Decent Place to Live**" identified many of the problems that low-income persons must handle on a daily basis. "For most, housing is a dream fulfilled; but for too many others, housing is unavailable, unaffordable or unfit." (A Decent, pg. 2). To a low-income family the American Dream is just that, a dream. While they strive to make ends meet often spending more than 50% of their income on housing alone, these families barely have a sustainable existence.

The availability of affordable housing for low-income families has been reduced from previous levels. This is partly due to the fact, "from 1973 to 1983, for example 4.5 million units were permanently removed from the housing stock through either demolition or structural

conversions; almost half of those units are estimated to have been occupied by low-income households (A Decent Place, pg. 6)."

The National Housing Task Force identified a strong source of assistance to address the needs of low-income families. This source was non-profit housing authorities or neighborhood associations. "A new generation of community - based nonprofit development organizations, propelled by persistence and inventiveness, is an important part of the new delivery system. Different from community organizations of the 1960s, which were often created in response to federal programs, this new generation - some 4,000 strong - is made up of community development corporations, nonprofit developers, religious institutions, and other neighborhood - based groups (A Decent Place, pg. 24)."

"Self-help is one of America's oldest and proudest traditions (Peirce, pg. 4)." The self-help referred to not only community organizations but also low income families that turn to these non-profits for help. "Non-profit housing programs take every shape and form - from promoting homeownership to enhancing the supply of affordable rental apartments to constructing transitional housing and refurbishing single room occupancy hotels for homeless people (Peirce, pg. 17)."

---

These organizations are places for low income families to go and find out about safe and affordable housing. Often these housing authorities have the best understanding of the housing conditions in a given area. They know the rental market and often can be a good source of information for referrals.

These organizations are often referred to as Non-profit Housing Authorities (NHA), Community Development Corporations (CDCs), or Community Housing Development Organizations (CHDO). "In a growing number of cities and towns, nonprofit developers are the primary or only producers of low-income housing (A Decent Place, pg. 24)."

"Many families are unable to afford the down payment to buy a first home and homeownership rates have declined substantially among young adults." (Interwoven). Non-profit Housing Authorities often provide individuals with homeownership counseling classes which include such topics as: budgeting, finance, mortgage products, and basic home maintenance. All of these courses encourage and help low-income families to become knowledgeable homebuyers. This then gives them the tools that they need to purchase a home.

Sometimes, instead of just learning how to do basic home maintenance, the people

in the program are required to perform "sweat equity". This term refers to labor that the potential homeowners put into the property (sweat), allowing them to keep the rehabilitation cost more affordable by investing their "sweat equity" into the project.

As an end result of the National Housing Task Force Study, the Federal Government took action and developed new programs. To get a better understanding of the action that was taken as an end result of the first study "**A Decent Place To Live,**" the Enterprise Foundation wrote a follow-up to the first study it was entitled "**A Decent Place to Live, Revisited.**" This study identified all of the new programs that the Federal Government developed as an end result of the first study.

In 1991, two strong programs that were developed as an end result of the study. The first was called HOME (Home Investment Partnership Program) and HOPE (Housing Opportunities for People Everywhere) housing programs. Clarification of the differences between the two is important.

HOME provides state and local governments with the resources to increase the housing supply by rehabilitating housing. This is accomplished through either the local

units housing program or by giving a portion of the funds to Community Housing Development Organizations (CHDO). The federal government went so far as to require that 15 percent of the local allocation be set aside for CHDOs. This was a very bold move because it required local units of government to work with non-profit housing authorities on housing projects.

The HOPE funds that were available focused on using existing federal, state or locally owned housing. This meant that any local units of government that had Public Housing Authorities, could convert their housing stock from governmentally owned property to privately owned property. As a result any local units of government that did not have existing public housing could turn to other sources to obtain their properties. Examples would include; properties owned by the Department of Housing and Urban Development (HUD), Farmers Home Administration (FHA), and even State "tax reverted" properties. Once these properties were owned by the local unit of government, the local unit could then utilize non-profit housing authorities to provide homeownership counseling courses to prepare the low-income families for homeownership.

The HOPE program had a very strong life during Secretary Jack Kemp's

administration from 1988 to 1992. With the new administration of Secretary Henry Cisneros starting in 1992, the focus turned back to HOME and the HOPE program was discontinued. HOME funding increased while the entire HOPE program was dissolved after 1994.

The main players in all the new federal programs were these community based Non-Profit Housing Authorities. Though they have many names, the most important fact is that they were identified as a critical vehicle to provide housing to low-income persons. With "the shrinking capacity of public organizations, increasing demand for services, and continuing trend toward decentralized program delivery underscore its importance (Saidel, 543)."

Non-Profit Housing Authorities are the vehicle that low-income families can use to obtain homes. These organizations receive funding from a wide spectrum of organizations. Funding for the study area is received from the federal Department of Housing and Urban Development (HUD), in Michigan from the Michigan State Housing Development Authority (MSHDA) and at the local level through the Department of Community Development (CD).

Additional grant funds are received from other national organizations such as the

---

Enterprise Foundation, Local Initiative Support Corporation (LISC), and Neighborhood Reinvestment Corporation (NRC). Another source that may be added to list of funding sources are foundations. One foundation plays a particular role in this study area. The Charles Stewart Foundation has focused on communities and their ability to sustain themselves. "Few people believe that without the Mott Foundation, Flint, Michigan could have sustained a fraction of its community Development Activity (Peirce, pg. 48)."

Since funding sources like HUD and other national organizations were now focusing on Non-Profit Housing Authorities (Non-Profits) as part of the solution to the housing problems that effect low-income families. these small community based organization suddenly became vital to address the housing needs of low-income families.

Many of these non-profit housing authorities were receiving Community Development Block Grant (CDBG) dollars from the HUD prior to the 1988 study, "**A Decent Place To Live.**" These funds were used for administration expenses and for the acquisition and rehabilitation of housing. The CDBG funds were difficult to obtain because they could be used for a wide variety of activities like; economic development, street

improvements, etc. The local units of government typically allotted only a small portion of the funds to Non-Profit Housing Authorities, however with advent of the HOME and HOPE program the focus was on housing for low-income families.

With the availability of these funds: CDBG, HOME, and HOPE, more pressure was put on Non-Profit Housing Authorities to become more "government like." This meant that they were held accountable to the same reporting requirements that were placed on the local units of government. Part of this increase in accountability included the need to maximize their resources. "Typically, the kind of things we are trying to do is to use limited resources more effectively (Mason, pg. 71)."

Each of the funding sources have their own reporting requirements and needs for compliance. Non-Profit Housing Authorities were required to keep track of all client information, sweat equity, volunteer donations and grant funds associated with each project.

The volume of work had also changed. Non-Profit Housing Authorities had to produce more volume of work for the increase in funds. Therefore, they had to rehabilitate more houses. This change meant writing more housing rehabilitation cost specifications, these are cost and

activities that are associated with rehabilitating a house.

With the increase in funding sources Non-Profits felt the added pressure of keeping all of the funding sources straight. Fund Accounting was necessary because of the variety of funding sources. With just CDBG grant funds and a few other local grants, non-government accounting was acceptable. However, with the increasing funding sources the manual system did not meet the fundamental accounting needs of the organization.

The requirements generated from the federal and state programs were not new to Non-Profits. However, with the volume of service they were able to provide with the increased funds, their existing record keeping and accounting systems were quickly becoming inadequate. Most Non-Profit Housing Authorities were using a system of "tick files" to keep track of client information. "Tick Files" are small cards or pieces of paper that have different types of pertinent information on them associated with each client. This system is very effective for small operational functions. However, to compile all of the reports necessary for compliance with the reporting requirements of the grant dollars, the "tick files" system became very difficult and inefficient to use.

## HYPOTHESIS

**The overall hypothesis for this paper is "Computers impact decision making."**

This thesis paper will detail the development, design, and implementation of a complete computerized Non-Profit Housing Authority management software package to answer the following hypotheses:

1. The computer software will improve job performance.
2. The computer software will help to reduce cost.
3. The computer software will enhance employee production.
4. The computer software will enable in-depth analysis.
5. The computer software will improve communication.
6. The computer software will not eliminate jobs.
7. The computer software will improve timeliness.
8. The computer software will improve quality of the reports.
9. The computer software will improve employee morale.
10. The computer software will decrease frustration.
11. The computer software will improve decision-making.

The computer software will assist Non-Profit Housing Authorities to maintain and improve financial resources,



---

accountability, and staff time. Better management of financial resources allows for a more efficient and effective use of funds. This allows more money to be dedicated to housing rehabilitation and homes for low-income families.

---

## **CASE STUDY**

The case study that was selected for this thesis was the Salem Housing Task Force, which is a non-profit housing authority serving the needs of low-income families in the north end of Flint, Michigan (located within Genesee County).

**Appendix One** are maps illustrating the physical boundaries of the service area of Salem Housing Task Force in relation to the City of Flint and a closer view of the Salem Housing Target Area. The houses are scattered throughout the target area. The houses that are usually rehabilitated by Salem Housing task Force are primarily single family homes.

The presence of children are a key component for eligibility to enter the Salem Housing program. The base eligibility requirements for entering the program are: you must have children, and your annual income does not exceed \$25,000.00 a year. That breaks down to one person not receiving over \$12.02 per hour or two persons making less than \$6.01 per hour. If one considers that the current minimum wage was \$4.25 as of January 1, 1995, this serves to illustrate the range of income levels that are needed to be eligible for the program.

According to the 1990 United States Bureau of Census Information, Genesee

County has a median income for families of \$36,760 (Summary, 221). The City of Flint has a median income for families totaling only \$25,083 (Summary, 221). The percentage of families with income below the 1989 poverty level for Genesee County was 14 percent while the City of Flint had 27.6. The United State Department of Housing and Urban Development uses the 1990 Census Information to establish it's income guideline. With a formula modification HUD issues adjusted families incomes to be used a eligibility guidelines to comply with program requirements. HUD bases the information of the family income off a four person family. For Genesee County the 1990 adjusted family income was \$43,400 (United). This income is a relatively high income due to the large number of manufacturing jobs in the county.

The terms Moderate and Low Income are identified by the HUD as being 80 to 50 percent of the adjusted median income. Therefore, according to this definition, Genesee County's moderate income for a four person family would be less than \$34,700 and a very low income family would make less than \$21,700. See **Table One** for a break down per family size income level for Moderate to Low income persons (Genesee, Appendix 3-1). The housing program that Salem Housing

**TABLE 1**

| <b>Family Size</b> | <b>Moderate Income<br/>(80% of Median)</b> | <b>Very Low Income<br/>(50% of Median)</b> |
|--------------------|--|--|
| One Person         | \$24,300.00                                | \$15,200.00                                |
| Two Persons        | \$27,800.00                                | \$17,350.00                                |
| Three Persons      | \$31,250.00                                | \$19,550.00                                |
| Four Persons       | \$34,700.00                                | \$21,700.00                                |
| Five Persons       | \$37,500.00                                | \$23,450.00                                |
| Six Persons        | \$40,250.00                                | \$25,150.00                                |

Source: 1995-1999 Genesee County Consolidated Plan

Task Force offers is primarily directed to Low Income families, (those persons making less than \$25,000 dollars a year.) According to the 1990 Census over 50% of the person residing in the Salem Housing Task Force Area are considered to be Low Income.

The median housing value for Genesee County is \$50,500, according to the 1990 Census (Summary, 209). However, the housing stock in the City of Flint is dense and older then other areas in Genesee County. The median housing value for the City of Flint is \$33,900 (Summary, 209).

The median housing value in the Salem Housing area is \$22,000.00 (Richardson). The average rehabilitation cost associated with bringing the houses up to code often exceed \$14,500 (Richardson). Housing codes are usually established by the local unit of government. If they have a local building division, this entity commonly usually identifies all of the housing

rehabilitation elements that need to be repaired prior to the sale of the structure. The City of Flint does have a Building Inspection division that inspects all homes prior to sale. If there is no local code, than HUD's housing Code is used as a minimum housing quality standard. The Section 8 Housing Quality Standard (HQS) is identified as the minimum standard units should meet (Federal, pg. 65329). This would include no exposed wires, running water, etc., overall conditions that would comply with the overall mission of HUD "safe, decent and sanitary." This does not include frills like carpeting and window treatments.

Salem Housing is able to purchase homes for approximately \$6,000 to \$7,000. The houses are purchased from a variety of sources. The State of Michigan has an annual sale of tax reverted properties this gives Salem the chance to purchase the properties for the taxes that are owed on the property. Sometimes the City of Flint acquire various properties and sells them

homeowner or landlord approach Salem for them to Purchase the property from them. The structural condition of these houses depends on who and where they were purchased from. Usually, the longer a house sits vacant, the more damage the house may undergo. Between vandalism and harsh winter the houses are usually in poor condition. Broken windows, frozen plumbing, leaking roofs, and fires are only a few of the potential types of physical damage a vacant house can endure.

When houses are acquired by Salem Housing Task Force, many homes have been gutted and be dire need of repair. This increases the need to rehabilitate the property to a level that can meet the basic City of Flint inspection standards.

Providing "safe, decent, and sanitary housing" becomes difficult when you have to start out with a shell. Very often the houses that Salem Housing Task Force utilizes have strong structures. This is due to the fact that before a house is purchased by Salem there is a pre-inspection by a group of volunteers who evaluate the condition prior to the purchase, this selection board is referred to as the Acquisition and Rehabilitation Committee.

The Acquisition and Rehabilitation Committee looks at many factors. The house itself, the houses surrounding the

house undergoing selection, and the potential to stimulate the neighborhood. The significance behind the stimulation is that with every house that Salem Housing renovates there is the potential to stimulate other houses to be rehabilitated by their owners or renters.

Neighborhoods are brought together by a common thread and if that thread is community pride, than there is a chance to save what might be considered a declining neighborhood. "Although housing preservation is extremely important as a matter of fiscal responsibility, it is much more than that. Preservation strategies also contributed to strengthening neighborhoods." (A Decent Place, pg. 32)

These illustrations demonstrate the vital need for Non-Profit Housing Authorities like Salem Housing Task Force to rebuild communities that have suffered from years of neglect. "They know local housing needs and are committed to serving them." (A Decent Place, pg. 24)

This was not just another research paper. This project built a needed, important tool for Non-Profit Housing Authorities that would enabled them to manage themselves, allowing for an increase in rehabilitation, and in turn will lead to an increase in the number of low income

---

families that may be able to own their own home.

The tool is a computerized management tool. It is a guide to more efficient and effective management of financial resources. The following sections of the paper illustrate the Steps that were involved in the development of the computer program known as SPECTACULAR DATA<sup>®</sup>. The program was designed in Rbase which is a DOS based, multi-relational database software package.

Some terms need to be defined before we go any further in the discussion, as to not confuse or loose any of the readers. A multi-relational database is a special type of computer program that allows storage of massive amounts of information in different tables and accessibility to the information when needed.

The best description may be that a multi-relational database is like kitchen cupboards, with everything kept in its own cupboard with similar items. When it is time to make something only the elements that are needed are removed from the cupboards and placed on the countertop, that is the working space for the meal being prepared. The ingredients are then mixed together and put on a plate to be eaten.

The analogy is that information or data is placed into tables, by typing the information into forms, from which the information is placed into the tables. As the tables fill up with information, that information can then be poured out in a report, and analyzed or digested.

This is important to understand because there is more information located in the tables (cupboard) that may need to be analyzed later. To sum it into one statement, a multi-relational database allows one to look at data in many forms and to perform more comprehensive analysis.

In a recent survey conducted by the International City of County Managers Association (ICMA) the use and impact that computers have on their local unit of government. The survey was mailed out in January of 1993, and was distributed to over 7,135 local units of government, over 2,527 local units responded. The response rate of the survey was 35.4 percent. It was determined by the survey that computers improve decision-making 82.95 percent of the time. **Table Two** illustrates some of the most important information from this research. The question from the survey stated, "Please indicate whether you agree or disagree with the following statements about the impact of technology on your jurisdiction? The results are as follows:

**TABLE 2**

|    | <b>Statement</b>               | <b>Agree</b> | <b>Disagree</b> |
|----|--------------------------------|--------------|-----------------|
| a. | Improves job performance       | 96.5%        | 1.9%            |
| b. | Reduces costs                  | 72.3%        | 23.7%           |
| c. | Enhances employee productivity | 89.2%        | 6.7%            |
| d. | Enables in-depth analysis      | 85.3%        | 6.6%            |
| e. | Improves communication         | 69.7 %       | 20.4%           |
| f. | Eliminates jobs                | 14.9%        | 86.1%           |
| g. | Improves timeliness            | 86.6         | 8.6%            |
| h. | Improves quality               | 91.7%        | 18.4%           |
| i. | Improves employee morale       | 71.2%        | 18.4%           |
| j. | Increases frustration          | 33.3%        | 60.3%           |
| k. | Improves decision making       | 82.95%       | 9.6%            |

Source: ICMA Survey

As you can see from the information above, computers do impact decision making, and overall management and operations of the organization. While the system was being designed all of these question statements were taken into consideration.

After careful review of existing software packages for non-profit housing authorities, it was determined that there currently was not one software package

that served the full variety or spectrum of needs that Salem Housing Task Force has to operate its program. Some pre-packaged software could perform rehabilitating cost estimates, however they did not meet the complex reporting needs of the multiple funding sources. That is the reason this system was originally developed to ensure that all of the needs Non-Profit Housing Authorities needs were identified and addressed whenever possible.

## APPLICATION DESIGN

Numerous hours were spent at the Salem Housing Office to get a comprehensive understanding of how the Non-Profit Housing Authority operated and functioned. The Director, Ms. Jane Richardson was very helpful in illustrating all of the components of the Salem Housing Task Force program.

Key elements were identified in order to illustrate the components that needed to be designed the computer software. The components were broken down into single

steps. All of the following steps illustrated took approximately 500 hours to develop.

## STEP ONE IDENTIFICATION OF FUNDING SOURCES

The first step was to identify the financial resources that are used to operate the housing rehabilitation program. All of the funding sources are listed below using approximate 1994 dollar amounts (Richardson). **Table Three** identifies each of the funding sources and if they have reporting requirements.

**TABLE 3**

| <b>Funding Sources</b>            | <b>Type</b> | <b>Amount</b> | <b>Report Required</b> |
|-----------------------------------|-------------|---------------|------------------------|
| Community Development Block Grant | Federal     | \$192,000.00  | Yes                    |
| HOPE 3                            | Federal     | \$175,000.00  | Yes                    |
| HOME                              | Federal     | \$63,000.00   | Yes                    |
| MSHDA Grant                       | State       | \$47,000.00   | Yes                    |
| LISC Grant                        | State       | \$5,000.00    | Yes                    |
| Mott Foundation                   | Private     | \$108,000.00  | Yes                    |
| Private Donations                 | Private     | \$24,595.00   |                        |
| Corporations and Businesses       | Private     | \$17,630.00   |                        |
| Church Grant                      | Private     | \$9,520.00    |                        |
| Community Foundation              | Private     | \$6,250.00    | Yes                    |
| Civic                             | Private     | \$1,500.00    |                        |
| Black United Fund                 | Private     | \$1,250.00    | Yes                    |

Source: Jane Richardson, Director

All of the funds identified with an affirmation of Report Required have a variety of reporting requirements. For example Community Development Block Grant (CDBG) dollars require that when a project is completed, within a given time period, all of the statistical information pertaining to each client must be reported.

This includes census tract, ethnicity, income level, age, and family size. Other federal programs like HOME and HOPE 3 have similar reporting requirements with different time periods identified. Whereas the Black United Fund requires that an entirely different set of information be reported, and for a different grant period.

The complexity of the reporting requirements placed on the Non-Profit Housing Authority was the starting point of the computerize system design. All of the reports were taken into consideration for the design and development of this system. The largest funding source, CDBG, has the most comprehensive reporting requirements for a report called the Grantee Performance Report (GPR). This report is sent to the City of Flint. The City includes the information in their summary of activities for the CDBG program and reports all activities back to HUD.

The author of this thesis works in the Community Development Department for Genesee County, so she had a comprehensive understanding of the importance of this information. Each local unit of government or non-profit receiving CDBG funds has to report how all of its dollars are spent. It is vital for them to illustrate their activities, dollar for dollar. In order to receive reimbursement for activities, detailed expenditure information is required.

### **STEP TWO GRANT FUND ACTIVITIES**

The second step was to develop an understanding of how the funding sources are applied to various activities. The dollars received from grants and loans must be used for specific elements.

Operational dollars include the salaries of staff, office supplies and equipment. While rehabilitation dollars are to be used for rehabilitation of houses, that would include construction cost. Out of Salem Housing budget, 55% goes towards the nuts and bolts of construction cost, 38% is training and program support for the housing programs, and only 7% goes towards administrative cost. The end result is that there is lot of money for rehabilitation but not enough resources to maintain adequate administrative staffing levels to support the large rehabilitation budget (Richardson).

### **STEP THREE IDENTIFICATION OF COMPUTER COMPONENTS**

“The most important aspect of application design is to understand the problem at hand. You can gather important information from the people involved (Rbase, pg. 1-2).” To help obtain a better understanding of Salem’s programs and the many components that needed to be addressed by the computer program, each staff member was interviewed. The following sections are elements that Salem Housing Task Force identified as high priority for the development of the software.

Contractor information needed to be maintained to keep track of contractor related information. This would include



---

license expiration dates and pertinent insurance dates. Salem Housing Task Force has to ensure that all of the contractors that they use are licensed and insured.

Due to the large number of small donations Salem Housing Task Force receives from its donors, a donation tracking component need to be designed into the system. The information had to contain when pledges and donation are made to the organization. The information needed to be tracked for two important reasons. The need to track the status of pledges and the amount outstanding. And the need to generate a donor thank-you letter at the end of the year, for Internal Revenue Service (IRS) donation documentation for the donor's records.

Salem holds a variety of fundraising activities through the year. Fundraising was identified as something that needed to be tracked to identify the different types of fundraising activities and the amount of funds generated. Documentation about the number of hours dedicated compared to the amount of financial resources received from the activity is valuable for the following years' planning process.

As with many Non-Profit Housing Authorities homeownership counseling is a very important component. Each

applicant must complete 12 homeownership classes. These classes are designed to help applicants become better homeowners. This is accomplished by teaching them a variety of things like; budgeting, home maintenance, and establishing good credit. All of the classes are required tracking the courses which were taken by each applicant is very important.

Housing rehabilitation cost specification writing was identified as being one of the most important elements to maintain the costs involved in rehabilitating the structure. In order to rehabilitate the house a cost specification report must be written by a staff member to identify improvements that particular structure. The specification writer must be able to break the activities down to a precise level. This includes who is going to perform the activity: volunteer, sweat equity applicant, in-house, or contractor. The specification also needed to be broken down into which type of contractor: plumber, electrician, or etc. This level of detail in the cost specification component allows Salem Housing Task Force to perform a more concise rehabilitation cost estimate and utilized all of its resources.

The need for material tracking was identified to allow Salem Housing Task Force to maintain the affordability of the units. This could be accomplished by

---

requesting for some of the items that are needed to rehabilitate the structure be donated instead of purchased from various material supply companies. This is referred to as a "Material Wish List."

Since Salem Housing Task Force receives a variety of grant dollars the need for multiple funding accounting was identified as a necessity. Most of the homes that are rehabilitated have multiple funding sources. Each payment out of the grant funding source needs to be maintained, not only for reporting purposes, but for the overall administrative expenditures.

While the property is being rehabilitated and rented prior to the sale to the homeowner, Salem Housing Task Force is maintains the mortgage on the property. Therefore mortgage information needed to be included in the development of the software to include taxes and insurance cost per structure.

For all of the different grant funds that were identified as having reporting requirements a statistical reporting component needed to be developed. This was one of the most important needs that Salem Housing Task Force identified. The use of the "tick files" was very labor intensive and time consuming for the data reporting needs of the various funding sources.

One of the most powerful elements in the Non-Profit Housing Authority design is their volunteer network. The need for volunteer tracking was identified as being important because volunteers are one of the best tools to keeping the houses affordable to families. Volunteers are non-profit housing authorities most precious commodity. Every second Tuesday of the month, Salem Housing Task Force has a group of volunteer that participate in the rehabilitation of houses. These volunteers come from a variety of areas; church groups, youth groups, fraternity organization, and average citizens "pitch-in." This saves Salem Housing thousands of dollars per project.

The need to track the "sweat equity" hours put into the structure by the low-income family participant was identified. This was identified as another vital element in keeping the housing affordability. There is a sweat equity component under which the applicant must complete ten "sweat equity" hours before they can begin the program. This first ten hours of "equity" have to be in other houses presently being rehabilitated by other low-income homeowners. In order to complete the program the applicant must complete four hundred hours of sweat equity. This includes them working on their own homes and houses of other applicants. According to HUD volunteer labor can be

calculated at ten dollars per hour (HUD). This means that a Low-Income applicant has over \$4,040 dollars invested in their house, this helps to reduce the cost of the rehabilitation.

The automation of the accounting system was identified as being high priority. This element received a combination grant from LISC to pay for the conversion from a manual system to an automated system. Salem consulted with their auditing firm. Their auditing firm recommended to Salem that they used an existing software called Peachtree. Though Peachtree was a good system to maintain their basic expenditure and receipt information, Peachtree can not handle multiple funding tasks. This is often referred to a multiple fund accounting. The computer system under design needed to handle the multiple funding sources and their individual reporting requirements. The other software packages that were being sold at the time that could perform the multiple fund accounting needs was too costly for this Salem Housing to consider purchasing.

#### **STEP FOUR DESIGNING TABLES**

The fourth step was the actual design of all tables needed in the database. For this particular computer program there are over 52 tables where information is stored. The most significant tables are

identified below to assist in understanding the type of information located in each table.

**Agency Information** - Contains information pertaining to the particular agency. The name and address are important because this data is usually required for reporting purposes.

**Contact Information** - All contacts made between staff and participants are maintained. This is of particular importance to the Tenant Coordinator who needs to contact clients often for class scheduling and rent payment information.

**Participant Information** - This table contains all information for all participants both applicants and volunteers. Current addresses and phone numbers need to be maintained to ensure information that is sent out is going to the correct location. This is important with the increase costs associated with monthly and quarterly mailings.

**Participant Activity Information** - This component keeps track of all of the activities in which the applicants and volunteers participate in, and the amount of time they spend at the activity. This is very important due to the required 400 "sweat equity" hours for all applicants. It is also helpful to get an idea of the per unit

rehabilitation savings for all volunteer labor on each unit.

**Participant Committee Information** -

When participants choose to serve on committees, this information is maintained to assist with items like labels for mailings prior to meetings and committee status information. The Salem Housing Task Force committee structure includes the Fund Development Committee, Family Selection Committee, Acquisition and Rehabilitation Committee, Public Relation Committee, Finance Committee, Executive Committee, Executive Committee, Neighborhood Planning Committee, Community Advisory, Nominating Committee, Fundraising Event Sub-Committee, and the Material Warehouse Committee.

**Participant Technical Specialty** - This helps to utilize volunteers if they have a particular specialty such as plumbing or electrical and what days they are available to work. The Technical Specialty are standard HUD identified codes for company types. An example of technical specialty would be A-01 Air-conditioning and Heating, A-02 Architect, etc. This information is also used to classify companies within the contractor component.

**Applicant Statistical Information** - Addresses all applicant information

needed to get the best understanding of who is participating in the program. Their statistical information is located in this component. Information contained in this table include, ethnicity, income level, census tract, house type, and etc.

**Contractor Information** - Contractor status information is located in this component. Insurance and workman's compensation are important considerations when selecting a contractor.

**Bid Selection Information** - When bids are mailed to contractors their responses are recorded and the lowest responsible bid receives the job. This element allows tracking of bidding procedures by the contractor, and gives an idea of when the persons writing the specification at Salem Housing are under/over bidding jobs as they are writing the estimates. Keeping track of all cost allows for more efficient and effective use of the fiscal resources.

**Cost List Information** - There are over 32 pages of costs associated with housing rehabilitation in the computer system. The information contains the list number, activity description, unit cost and unit measure. An example of a cost list item would be: BR1004 - insulate & Fire-Stop Tub Alcove, Install Backing, with a units cost of \$35 each.

**Job Cost Information** - After the house is purchased a rehabilitation cost specification estimate must be written. The Rehabilitation Coordinator is able to identify the number of units required and the degree difficulty known as the unit cost factor (UCF). The cost list number PA1003 equals the activity of "Paint Aluminum siding and trim repair as needed." The unit cost is \$.75 per square foot. In order to get a cost for that particular list number the following is an example using 2000 units and a cost factor of 1.0:

$$$.75 \times 2000 \text{ SF} \times 1.0 \text{ UCF} = \$1,500.00$$

That \$1,500.00 can then be multiplied by unit cost factor of 1.2 which means that to perform that particular activity, the activity was going to be 20% more difficult. The new equation would appear as the following :

$$$.75 \times 2000 \text{ SF} \times 1.2 \text{ UCF} = \$1,800.00$$

If the house was a two story with most of the aluminum siding on the second story that list number would be more expensive. This is because when a contractor has to perform more ladder work he has to compensate for the wear and tear on both the worker and the equipment. The new cost of that list number would be \$1,800.00.

**Material Wish Information** - As the cost specification is written any materials that are needed could be added to the material wish list and sent to potential donors. These items would include bathtubs, toilets and sinks.

**Donation Information** - All donations received are recorded in this component. At the end of the year, a Thank-You letter is sent to each donor that can be used as a receipt of all dollars donated and materials donated for tax reporting purposes.

**Pledge Information** - Tracking of pledges to ensure that people are reminded of their pledge donations is important because people sometimes forget. Donations allow the organization to financially cover items that may not be included as part of other grants.

**Grant Fund Information** - This component keeps track of all grant funds that the organization receives. It identifies who is the funding source, what are the reporting time periods and the balance of the fund account. This component works directly with the Fiscal component to fulfill the Fund Accounting that is needed.

**Fiscal Information** - All of the actual accounting is performed in another accounting software packages called Peachtree. However, but the multiple

fund accounts have to be triggered so the information is uploaded from the Peachtree system through a report. The report is then loaded as a ASCII document and placed in the Fiscal component. This information is then integrate into the Grant Fund Information.

**Mortgage Information** - This table contains all of the mortgage information on the properties purchased by the organization. Taxes, insurance and other mortgage information is kept in this table.

**Property Information** - While the property is being rehabilitated this component keeps track of all budgeted and expended costs for the property. It also keeps track of the variety of funding sources for the property. This component works closely with the Fiscal and Grant Fund Tables to keep track of all cost associated with the project.

**File Information** - All applicant file information is located in this component. This allows the non-profit to keep track of vital information such as the date the applicant was issued their Lead Based Paint Notice, as required by CDBG rehabilitation requirements.

**Appendix 2-1** is a data dictionary for SPEC-tacular Data<sup>®</sup>. The data dictionary can aid in the integration of the computer software because it gives the user the

following types of information: field name, field type, and description (Roucheleau, 265). The lists contain information that was included in the tables that were designed for the computer system.

“Documentation can be internal to the program, including help screens, prompts, and understandable error messages (Roucheleau, 266).” There are additional tables which are called Validation Tables. These tables allow the user to select information that is located in another table, this on-line information is vital to help standardize certain entries. All of the screens that have standard information like status code information were designed to have a pop-up menus. This helps the user to select from a standard list of selections **Appendix 2 - 2** is a sample of validation table designed into a form as a pop-up menu.

## **STEP FIVE DESIGNING FORMS**

Once all of the tables have been designed, entry screens (forms) have to be developed so that the information can get into the tables. The forms that were designed for the system were created to help the user understand what information the computer needs in that particular place.

A sample of a line from an entry form would be where the computer is looking

---

for the address of the participant, the screen would ask for:

**Address:** \_\_\_\_\_

the user would fill in the blank located next to the word or phrase associated with it. **Appendix 3** is a sample of all of the entry screens developed for SPEC-tacular Data<sup>®</sup>.

Massive amounts of information can be placed into the system. Each table can contain up to 16,000 rows of data, with a maximum of 254 columns. As you could probably imagine the computer system being designed has the potential to store a lot of data presently being held in paper form. This allows for the maintenance of data over a period of years, and the capability for extensive analysis.

For instance, it would be nice to analyze the impact that the homeownership programs have on the applicants, "Are they better able to maintain their budget after all of the budgeting classes?" This answer could be looked at if over a period of years if the system were able to look at which participant took which training courses. Perhaps the Salem Housing wanted to identify weaknesses in their program. Say for instance, that out of 15 new homeowners 50% lost their homes due to poor money management. Maybe the curriculum was too difficult to

understand and therefore people left the class not understanding that component. Tracking information like this is important when you want to analyze the impact your program is having on new homeowners.

## **STEP SIX DESIGNING REPORTS**

Once the tables and forms are made then specialized reports can be developed. A report is the extrapolation of data from the table or tables. Information can be obtained in a variety of ways. All of the reports that were designed for the system are described below. **Appendix 4** is complete set of all the reports that were designed as part SPEC-tacular Data<sup>®</sup>.

**Participant Contact Report** - This report was designed to help Salem Housing Task Force track of all types of contacts their staff has with various participants. This would include applicants, donors and volunteers. This report could help the organization when it is time to write reports. A good example is the request that they have from various applicants for day care during housing rehabilitation.

This is particularly important when you consider the age of the homes that are rehabilitated. Many of the homes contain lead paint and the main activity that "sweat equity" participants perform are painting activities. This includes

preparation that requires them to scrape the walls which puts more lead into the air. The need for child care is not just a need but a lifesaving issue. Keeping track of all the requests made for day care helps support that issue when it is time to applying for grants that may allow for funds to be used to pay for day care for the "sweat equity" participants.

**Participant List** - Identifies all of the different types of participants. This includes applicants, homeowners, volunteers and donors. All of the information pertaining to the Participant is available to the person generating the report. This report can be use as a phone contact list when it is time to solicit for various activities.

**Participant Activity List** - The information contained in this report track activities that a particular participant is involved in. This report lists not only committee activities but also "sweat equity" labor that is donated to Salem Housing Task Force. This report could be generated per project to see how many volunteer and "sweat equity" hours went into the project.

**Committee List** - This is a list of all committees and a break down of all committee members. This can be used as a phone list to track who will or will not an upcoming meeting.

**Volunteer Technical Specialty Information** - This is a valuable report when it comes to utilizing your volunteer resources. This report identifies any technical specialties that a particular participant might have. For instance if the person is a Plumber they would have a technical specialty as an A-17.

**Quick Applicant Listing** - The list was designed to help the Client Coordinator identify those in need of "sweat equity" hours to fulfill their 400 hour requirement.

**Statistical Reports 1, 2, and 3** contains all of the demographic information that is needed for many of the reporting requirements. This encompassed all of the CDBG reporting requirements. This is a very time consuming report if it has to be filled out by hand using the old "tick files." The information once it is entered into the computer system, can be analyzed in a variety of ways.

**Applicant Sweat Equity Report** this report is important for the Client Coordinator because it tracks the hours that each Applicant puts into various homes.

**Contractor Status Report** is a report of all contractors in the computer system. It identifies all status information like



licensing and insurance. This is a very important report for liability reasons.

**Eligible Business Listing** is a report of all contractors within a particular technical specialty that have the correct current licensing and insurance requirements. An example would be a report of all A-17 contractors that would list all Plumbers that could possibly receive bids.

**MBE/WBE/HBE Report** identifies all dollars that are spent by Salem Housing Task Force. It breaks down the amount of dollars spent by each job, per contractor. This allows Salem to ensure that they are complying with additional CDBG reporting requirements to ensure that Minority Contractors are being used.

**Invitation To Bid** is a letter that is generated per job to each contractor that is selected to bid on the job. This saves both the clerical staff and rehabilitation staff time because the necessary information pertaining to the contractor should already be in the system.

**Cost List Report** is a comprehensive list of all possible activities that could be performed on a house. The Cost List includes information like the list number, activity description, location, unit cost and unit measure. The list number is the most important reference tool between the cost list and the Job Cost Information.

**Cost Specification Report** is a vital element for increasing cost efficiency. This report allows the construction coordinator to identify all activities that must be performed on a home that they are rehabilitating. This Cost Specification Report is retained by the Rehabilitation Coordinator at Salem Housing. The report includes all of cost associated with the job. This allows the Rehabilitation Coordinator to compare the estimate mailed out and the bids received from the contractors. The Rehabilitation Coordinator can also use this report to track who is responsible for each activity; contractor, in-house labor force, volunteer or "sweat equity" participant.

**Contractor - Cost Specification Report** - Is the specification report that is sent out to potential bidding contractors. The information is sorted by the contractor technical specialty and allows for example all A-17 Plumbers to bid against other plumbing contractors. This is important because it saves a lot of cost when Salem Housing Task Force can serve as the prime contractor, sub-contracting as many of the elements as they can.

**In-House - Cost Specification Report** - This cost specification is given to the In-House labor force that is presently working for Salem. Since material management from the warehouse to the

job site is important, all materials can be itemized. For instance they can identify the number of gallons of paint to paint the house. This allows for better materials management.

**Sweat Equity - Cost Specification Report** - This report was designed for two reasons. The primary reason being to help the potential homeowner put as much "sweat equity" into their property as possible. It also allows for the Client Coordinator to keep track of the hours that the applicant works on each job. When an applicant works on the job, they record their name on the specification sheet. That information can then be recorded into the computer system.

**Volunteer - Cost Specification Report** - is similar to the Sweat Equity - Cost Specification Report. The major difference is that the technical specialty of the volunteer labor force is kept. This allows Salem Housing Task Force utilize specialized volunteers when they are needed.

**Material Wish List Report** is the report that is sent out to various material suppliers. The list contains all elements needed for a particular job. This could be utilized in a variety of ways. The chance that a company is going to donate is increased when they know exactly which project they are donating to. Several

Non-Profit Housing Authorities allow people to make a particular donations with a specific designations such as "use the money to buy a bathtub" for a particular house.

**Donation Annual Activity Report** is a report of all donations per participant. This is a donation report log with present and past years donation information. This information can be used to gain an understanding of annual donations and forecasts for years to come.

**Donation Activity Report** - This report is used to itemize out all donations made in that year. This can be used as the end of the year donation activity report. The report displays each donation with date and value of donation. Some donations are in the form of cash while others are in the form of objects.

**Fundraising Report** - The Fundraising Report shows all of the fundraising activities that have occurred over a given period of time or complete. This is a useful reference tool for fundraising planning.

**Pledge Status Report** - This is a very important report for Salem Housing Task Force. Once a pledge is given to Salem they are able to track the progress of the pledge. For instance if someone pledges \$25 bi-monthly, every two months a

---

reminder letter could be sent to the donor. These are just friendly reminder letters that tell the donor the balance they have left in their pledge.

**Grant Balance Report** - The Grant Balance allows one to identify the balance remaining in each grant. Tracking the various grant funds is vital to Salem Housing Task Force, and involves all of the planning and financial needs of the organization.

**Grant Goal Report** - This report is a status report on a particular grant. When a grant is received a list of goals are put into the system. These goals are identified in the application previously made to the funding agency. This report can be generated in order to check and see Salem's goals for those particular grant dollars.

**Fiscal Status Report** is the status of all elements that have occurred during a particular period specified. A monthly fiscal statement would detail all the fiscal activities that occurred for that given period.

**Mortgage Report** is a report on the mortgage cost per house. This allows Salem to see all of the dollars they have tied up in mortgage. The information can be used to forecast when houses would be sold to plan for additional activities.

**Property Budget Report** - This report compares the budgeted elements to the expended elements. This means that if the project was budgeted \$300 for fencing, but only had to spend \$250, there would be \$50 of the budgeted dollars to apply to another budgeted item without going over budget.

**Property Payment Report** - The Property Payment Report is designed to track the rent/mortgage payment information. It identifies all payments made and their timelines. This information is helpful when it is time for the applicant to go to mortgage, because you are able to show a payment history.

All of these reports were designed to enhance the efficiency of the staff time involved in record-keeping for Salem Housing Task Force. It also improves the effectiveness of the organization to keep the housing affordable.

## **STEP SEVEN DESIGNING LABELS**

Since Salem had a need for labels for mailing purposes. All mailing labels were developed to help them sort the mailing information into zip-code sorts enabling them to use the bulk mailing rates on the postage. Mailing labels were developed for all purposes including contractor mailing labels for the invitation to bid

---

process. **Appendix 5** is a sample of the mailing labels available to the user.

## **STEP EIGHT      DESIGNING THE APPLICATION**

The Eighth Step was one of the most crucial for the actual use of the software being designed. The development of the application is a very detailed step because it involves all of the previously mentioned components: tables, forms, reports, and labels.

An application is the visual component that appears on the screen that the user sees. The application is driven by commands located in the source code for the application. The end user only sees this layer, which allows them to use the system that was designed for them.

This is often referred to as the "user-friendly level" that sits on top of all the tables, forms, reports and labels. **Appendix 6-1** illustrates the software application flowchart. This is also referred to as a data flow diagram (DFD). The Main Menu is at the top of the chart, followed by seven subsequent menus. **Appendix 6-2** is a copy of all the menus in SPEC-tacular Data<sup>®</sup>. For instance if

### **1. Agency Information**

were selected from the Main Menu, the user would then go to the Agency Information sub-menu.

From this sub-menu the user could select to Add or Edit Agency Information or Contact Information. If the user selected View Table Menu, they would then go to another sub-menu. If you look at the flow chart the main menu is red, the sub menus are blue, and the sub-sub menus are pink. This flow chart allows the user to see where they are at while they are in the system. If the person wants to go back to the Main Menu they only have to press the Escape key until they returned to the menu they wanted.

## **STEP NINE      TRAINING MANUAL DEVELOPMENT**

After the Application was designed, a training tool had to be developed to help the users learn the new software. **Appendix 7** is a sample of a section of the Training Manual for SPEC-tacular DATA<sup>®</sup>. This was a very time consuming element of the program, but a vital one for the smooth transition from the paper driven system Salem Housing Task Force was used to using. The Training Manual flows similar to the software and is broken down into elements like the software itself.

There is an introduction to the software at the beginning of the training manual.

Then the system follows the flow chart, Section One of the Training Manual is Agency Information, etc.

## **STEP TEN DEVELOPMENT OF MANUAL FORMS**

While developing the training manual, the key to smooth transition from the "tick files" to the computer driven implementation required the development of hardcopy entry forms. This helps the users who do not have direct access to the computer keep track of information that they later wanted to put into the computer system.

**Appendix 8** has a sample set of the forms designed for the users. The forms reflect the information that the computer asks for, so when the user sits down to enter the information in the computer system, they are not empty handed.

Along with sample forms there is a complete Housing Inspection System that was designed to help the construction coordinator perform more thorough inspections. These forms look at all of the different aspects of the house exterior and interior. **Appendix 9** is a sample of the Housing Inspection forms. The list numbers identified in the List Number column coincide with the information located in the Cost List within the computer system. This allows the user to

write the specification without having to look each element up in the Cost List.

## **IMPLEMENTATION**

Application Implementation involves the training of staff members. Each staff member identified the elements they felt they addressed and were trained in that area. Two staff members were then trained in the entire system operation.

Staff training consisted of one on one training and group training. The most time consuming component of the training was the cost specification writing component. The Rehabilitation Coordinator had to be training writing cost estimates using the new systems. The staff training provided helps familiarize staff with the software and computer itself. Most of the staff had some experience with computers, but the application was totally new to them.

## **ADVERTISING**

Development of informational brochures for potential users was necessary to help them develop an understanding of what the system was designed to do. **Appendix Ten** is a sample of the brochure that was designed. The software, once designed had to be copyrighted, so the proper procedures

were taken to copyright the software with the federal government.

## **HYPOTHESES COMPARISON TO ICMA SURVEY**

Analysis of the ICMA mentioned earlier in the study will now be compared to the thesis hypothesis' for SPEC-tacular DATA<sup>®</sup> at Salem Housing Task Force.

### **1. The computer software will improve job performance.**

The director, assistant director, book-keeper, construction specialist and secretaries were all affected by the software. The director and assistant director had an easier time reporting on all of the various grants. The construction specialist and the secretaries were able to utilize their time more efficiently.

### **2. The computer software will help to reduce cost.**

The cost specification component helps for better utilization of sweat equity participants and volunteers, keeping housing rehabilitation costs low.

### **3. The computer software will enhance employee production.**

The cost specification component allows the construction coordinator to monitor more ongoing work projects, by delegating activities to "sweat equity" participants, volunteers, and an in-house labor force wherever possible. For those activities that must be bid to contractors, the cost specifications are sent directly to contractors with particular technical specialties (ie. plumbing for plumbers) instead of using a general contractor who then sub-contracts to perform the task. The use of a General Contractor inflates the cost of the component, because of the need for the General to then sub-contract with another contractor for specialized activities, ie. plumbing. It is more cost effective for Salem Housing to directly contract with the Plumber, instead of the General Contractor.

### **4. The computer software will enable in-depth analysis.**

Analytical abilities have been increased substantially because information can be integrated and analyzed using a variety of reports

**5. The computer software will improve communication.**

The communication between Salem staff, board members, and funding sources has improved because of the specialized reports that can be generated.

**6. The computer software will not eliminate jobs.**

The software did not eliminate any jobs, but instead potentially illustrated the need for additional staff members to meet the needs of the housing authority.

**7. The computer software will improve timeliness.**

The reports that were created help to improve timeliness and enables jobs to go out for bid faster. The software saves staff time when reports are needed.

**8. The computer software will improve quality of the reports.**

The quality of the reports substantially changed with the addition of the computer software. The software allowed for more comprehensive analyses of client and participant information.

**9. The computer software will improve employee morale.**

The staff of Salem Housing Task Force was eager to learn the system, however, they were also frustrated due to the time they needed to dedicate to learning the system. It is difficult to learn a new computer system when all of your normal daily tasks remain the same. There is a need for some "learning time" after the system is installed. Even the best training manuals and software packages have learning curves for cognitive development and understanding of the system.

**10. The computer software will decrease frustration.**

The software actually increased frustration because of the lack of time allocated to learn the new system.

**11. The computer software will improve decision-making.**

The computer software does improve the information that is available and thus allows for better decision-making. The overall impact of the software on the

organization was positive and the further development will continue to enhance their decision making abilities

## **CONCLUSION**

"This is the wealthiest nation in the world, with superlative problem-solving capacity. Surely we can match our resources to our deep concern for the dignity and well-being of our people. We can provide the opportunity for fit, livable and affordable housing for all Americans. This is our challenge. This is our responsibility (A Decent Place, pg. 4)." After working with Salem Housing Task Force and seeing what Non-Profit Housing Authorities really do, I concur.

We can draw the conclusion that Computers Impact Decision Making with the ICMA survey. The challenge was to determine if the computer software program SPEC-tacular DATA<sup>®</sup> will impact Salem Housing Task Force.

**The overall hypothesis for this paper was "Computers impact decision making."** The software enables them to better manage all of the resources to allowing them a more efficient and effective use of financial resources. It will enable Salem Housing Task Force to put

more money towards housing rehabilitation. The long term results assist more low-income families to become homeowners of affordable housing.

The goal of the software was to save staff time and help the organization to run more efficiently and effectively. After viewing the pre-software operational procedures compared to the post, I feel that SPEC-tacular Data<sup>®</sup> will help Salem Housing and other Non-Profit Housing Authorities.

"The directors (and staff members) of community development organizations are among the most dedicated professionals in any field (Peirce, pg. 65)," and that is why this was such an important project. Ms. Jane Richardson and her staff put in a massive amount of time to help improve the community. The dedication level that this organization displayed made this project not only worthwhile but the most meaningful task this writer has ever participated in.

"Without an adequate database, it is difficult to do the critical analyses necessary to determine which interventions would make a significant impact. Unfortunately, an extensive and complete collection of workforce data is virtually impossible and not affordable at the national level. (Fannie Mae, pg. 7)." This statement is correct. However, if all



---

local units and Non-Profits were given SPEC-tacular Data<sup>®</sup>, information could be compiled and further analysis could be accomplished at a national level. With everyone sharing the same information, a true picture could be painted, portraying the state of housing in the United States.

Herbert A. Simons and Anthony Downs were both very insight-full as to the impact that computers could have on decision-making. However, through my research findings, there is one issue that needs to be addressed; education of public administrators on the impact that computers could make on their decision-making processes. Douglas Kiel, John E Kerrigan, and David W. Hinton all address the need for more computer application courses as part of the Masters' in Public Administration programs.

After conducting research for the topic of computers in public administration, I feel that more public administrators would become more efficient, if they had a better understanding of computers. With a basic understanding of such things as: word processors, spreadsheets, and multi-relational databases, most public administrators would be able to ask more of their staff. Also this would help them to develop a better understanding of what they are asking their staff to accomplish and would place realistic timelines on projects. If a public administrator

educates him/herself on the impacts that computers would have on his/her organization, they will benefit by having better, more comprehensive, information at their finger tips.

---

## BIBLIOGRAPHY

**25 Years of Community Change**, Center for Community Change, 1992.

**A Decent Place to Live**, The Report of the National Housing Task Force, March 1988.

Coursey, David and Bary Bozeman, "Decision Making In Public And Private Organizations: A Test Of Alternative Concepts of 'Publicness'", **Public Administration Review**, Sept-Oct., Vol. 50, No. 4, pp. 525-535, 1990.

Fannie Mae, **Foundation Building for the Future - A Discussion Paper on Strengthening Staff Leadership in Community-Based Development Organizations**, November 1993.

Final Report Of The National Association Of Schools Of Public Affairs And Administration, "Ad Hoc Committee On Computers In Public Management Education, Curriculum Recommendations For Public Management Education In Computing", **Public Administration Review**, Special Issue, Vol. 46, pp. 595-602, 1986.

**Genesee County 5 Year Consolidated Plan 1995-1999**, Genesee County Metropolitan Planning Commission, February 1995.

Goodall, Tom, **Power of R:base**, MIS Press, New York, 1992.

Graber, Doris, A., **Public Sector Communication: How Organizations Manage Information**, **Congressional Quarterly Inc.**, Washington 1992.

Harmon, Michael M., "'Decision' and 'Action' As Contrasting perspectives In Organization Theory", **Public Administration Review**, March-April, Vol. 49, No. 2, pp. 150-152, 1989.

"Home Investment Partnership Program; Interim Rule", **Federal Register** Department of Housing and Urban Development, 24 CFR 92, December 16, 1991.

Hurley, Michael W. and William A. Wallace, "Expert Systems As Decision Aids For Public Managers: An Assessment of the Technology and Prototyping As a Design Strategy", **Public Administration Review**, Special Issue, Vol. 46, pp. 563-571, 1986.

**International City and County Managers Association Survey**, January of 1993.

---

***Interwoven Destinies: Cities and the Nation***, The Eighty-second American Assembly, April 15-18, 1993.

Jackowski, Edward M., "Developing an Information Resource Management Plan", ***Public Productivity Review***, Vol. XI, No. 3, Spring 1988, pgs. 3-13.

Kerrigan, John E. and David W. Hinton, "Knowledge and Skills Needs for Tomorrow's Public Administrators", ***Public Administration Review***, Sept. - Oct., Vol. 40, pp. 469-473, 1980.

Kiel, L. Douglas, "Information Systems Education In Masters Programs In Public Affairs And Administration", ***Public Administration Review***, Special Issue, Vol. 46, pp. 590-594, 1986.

King, John Leslie, "Local Government Use of Information Technology: The Next Decade," ***Public Administration Review***, Jan.-Feb., Vol. 42, pp. 25-36, 1974.

Kraemer, Kenneth L. and James N. Danziger, "Computer and Control in the Work Environment", ***Public Administration Review***, Jan. Feb., Vol. 44, pp. 32-34, 1984.

Kraemer, Kenneth L. and John Leslie King, "Computing and Public Organizations", ***Public Administration Review***, Special Issue, Vol. 46, pp. 488-496, 1986.

Mason, Alan, "Panel 2 - Computer and Productivity", ***Public Productivity Review***, March 1984, pages 70-84.

Maynard-Moody, Stevan, "Beyond Implementation: Developing an Institutional Theory of Administrative Policy Making", ***Public Administration Review***, Mar. - Apr., Vol. 49, pp. 137-142, 1989.

McGowen, Robert P. and Gary A. Lombardo, "Decision Support Systems In State Government And Pitfalls", ***Public Administration Review***, Special Issue, Vol. 46, pp. 579-583, 1986.

Metcalf, Henry C. and L. Urwick, ***Dynamic Administration: The Collected Papers of Mary Parker Follett***, Harper and Brothers Publishing, New York, 1940.

- 
- Miller, Thomas I., "Gut-Level Decisionmaking: Implications for Public Policy Analysis", *Journal of Policy Analysis and Management*, Winter, Vol. 8, pp. 119-124, 1989.
- Nagel, Stuart S., "Updating Microcomputers and Public Policy Analysis", *Public Productivity Review*, Vol. XI, No. 3., Spring 1988, pp. 117 - 122.
- Nutt, Paul C., "Types of Organization Decision Processes", *Administrative Science Quarterly*, Vol. 29, pp. 414-450, 1984.
- Overman, E. Sam and Don F. Simanton, "Iron Triangles And Issue Networks Of Information Policy", *Public Administration Review*, Special Issue, Vol. 46, pp. 584-589, 1986.
- Peirce, Neal R. and Carol F. Steinbach, *Enterprising Communities - Community-Based Development in America*, 1990.
- Porat, Avner M. and John A. Haas, "Information Effects On Decision-Making", *Behavioral Science*, Vol. 14, pp. 98-104, 1969.
- Rbase Educational Series Application Development*, Microrim Inc., 1991.
- Rbase Reference Manual*, Microrim Inc., 1993.
- Richarson, Jane, Director Salem Housing Task Force, **Summary of Salem Housing Activities Conversation**, November 1994.
- Roucheleau, Bruce, "Microcomputers and Information Management: Some Emerging Issues", *Public Productivity Review*, Summer/Fall 1995, pages 260-270.
- Rscope The Best View Into Your R:base Database*, Microrim Inc., 1991.
- Rubin, Barry M., "Information Systems For Public Management: Design And Implementation", *Public Administration Review*, Special Issue, Vol. 46, pp. 540-552, 1986.
- Sacco, John F. and John W. Ostrowski, *Microcomputers and Government Management; Design and Use of Applications*, Brooks/Cole Publishing Company, Pacific Grove, CA, 1991.
- Saidel, Judith R., "Resource Interdependence: the Relationship Between State Agencies, and Non-Profit Organization", *Pubic Administration Review*, Nov.-Dec., 1991, Vol 51, Number 6, pages 543-553.

- 
- Shafritz, Jay M. and Albert C. Hyde, *Classics of Public Administration*, Brooks/Cole Publishing Co., Pacific Grove, CA, 1978.
- Shangraw, Ralph F., "How Public Managers Use Information: An Experiment Examining Choices of Computer And Printed Information", *Public Administration Review*, Special Issue, Vol. 46, pp. 506-515, 1986.
- Simon, Herbert A., "Administrative Decision Making", *Public Administrative Review*, Vol. 26, pp. 31-37, 1966.
- Simon, Herbert A., *Administrative Behavior: A Study of Decision-Making Processes In Administrative Organization*, The Free Press, New York 1976.
- Simon, Herbert A., *The New Science of Management Decision*, Prentice-Hall, Inc., Englewood Cliffs, NJ, 1977.
- Stevens, John M. and Josephine M. La Plante, "Factors Associated With Financial-Decision Support Systems In State Government: An Empirical Exploration", *Public Administration Review*, Special Issue, Vol. 46, pp. 522-531, 1986.
- "Summary Social, Economic, and Housing Characteristics," *United States Bureau of Census - Michigan*, 1992.
- Thomas, John C., "Public Involvement In public Management: Adapting and Testing A Borrowed Theory", *Public Administration Review*, July-August, Vol. 50, No. 4, pp. 435-445, 1990.
- Thompson, Victor A., *Modern Organization*, The University of Alabama Press, Tuscaloosa, 1977.
- Tien, James M. and James A. McClure, "Enhancing The Effectiveness Of Computer In Pubic Organizations Through Appropriate Use Of Technology", *Public Administration Review*, Special Issue, Vol. 46, pp. 553-562, 1986.
- United States Department of Housing and Urban Development Office of Housing, *National Specification System Catalog of Specification for Reconditioning HUD-Acquired Properties* HUD-T9767 (5-83).
- United States Department of Housing and Urban Development, *Adjusted 1990 Income Levels*, 1992.

---

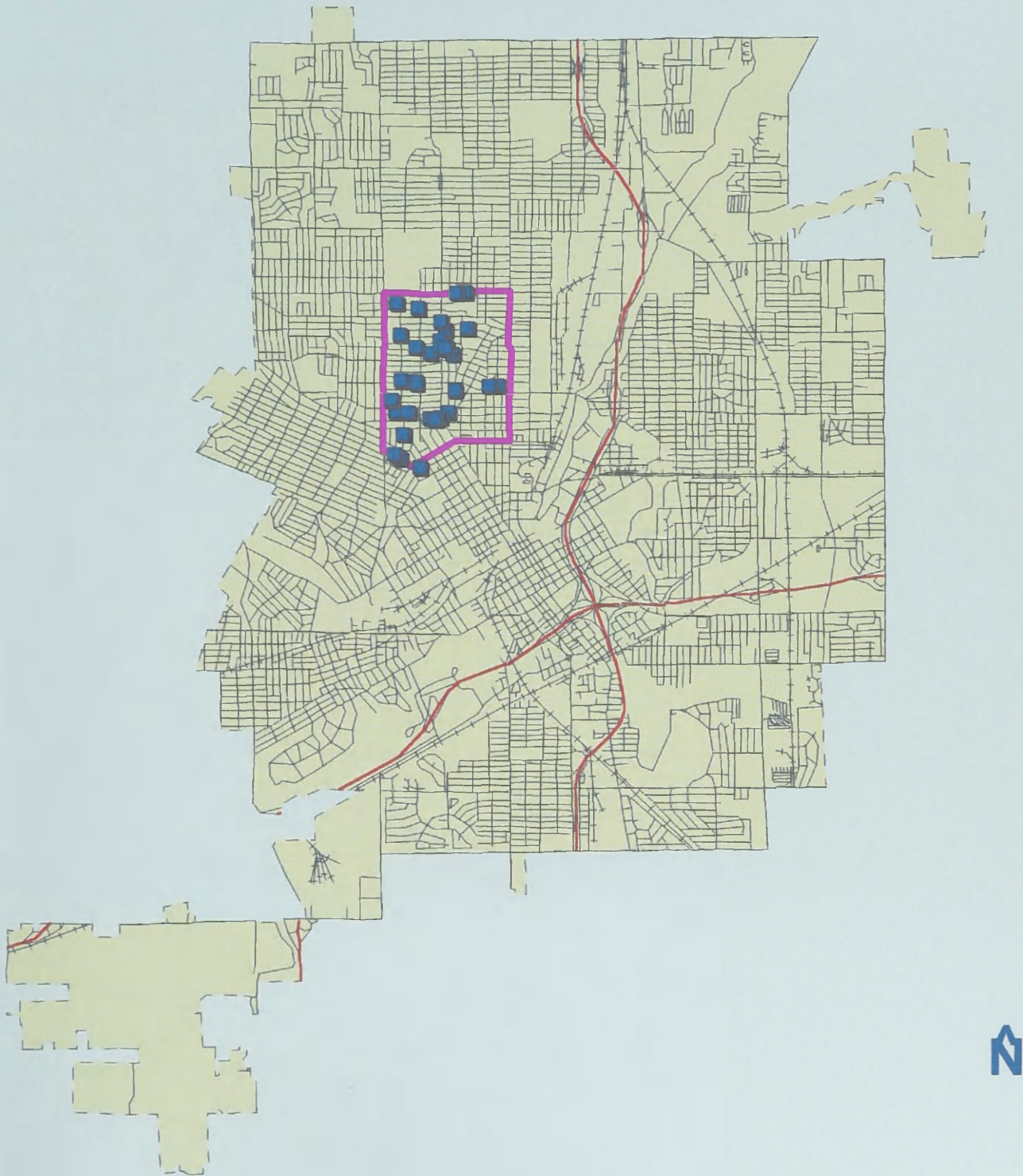
United States Department of Housing and Urban Development, **Section 8 Existing Housing Program Inspection Checklist**, OMB No. 2502-0185.

Voss, L.E. and Donald Ekmeier, "Microcomputer In Local Government", **Public Administration Review**, Jan.-Feb., Vol. 44, pp. 60-63, 1984.

Weiss, Janet A., "Coping with Complexity: An Experimental Study Of Public Policy Decision-Making", **Journal of Policy Analysis and Management**, Fall, Vol. 2, pp. 66-87, 1982.

Weiss, Janet A., Judith E. Gruber, and Rober H. Carver, "Reflections On Value: Policy Makers Evaluate Federal Information Systems", **Public Administration Review**, Special Issue, Vol. 46, pp. 496-505, 1986.

# Salem Housing Task Force Flint, Michigan





---

# Salem Housing Task Force Flint, Michigan





NAME OF DATABASE: House  
 NAME OF TABLE: DONOR  
 DESCRIPTION: This database contains all of the Donors that give materials.

| NAME       | TYPE    | DESCRIPTION                                 |
|------------|---------|---|
| DNAME      | TEXT 30 | Donor Name                                  |
| DTAXNUMBER | TEXT 9  | Donor Tax Number                            |
| DADDRESS   | TEXT 20 | Donor Address                               |
| DCITY      | TEXT 20 | Donor City                                  |
| DSTATE     | TEXT 2  | Donor State                                 |
| DZIP       | TEXT 9  | Donor Zip + Four                            |
| DAREACODE  | TEXT 3  | Donor Area Code                             |
| DPHONENUM  | TEXT 8  | Donor Phone Number                          |
| DFAXNUM    | TEXT 8  | Donor Fax Number                            |
| DCONTACT   | TEXT 30 | Donor Contact Person                        |
| DTYPE      | TEXT 2  | Donor Types 1-Comp., 2-Individ., or 3-Other |
| DNOTE      | NOTE    | Note About Donor                            |
| DSTATUS    | TEXT 3  | MBE/WBE/HBE or Non                          |
| CLASS      | INTEGER | Enter 1                                     |
| DTRADE     | TEXT 1  | Company Trade 1-Construction 2-Materials    |
| DTECH      | TEXT 4  | Determined from HUD list: A-09              |
| DPART      | TEXT 3  | Donor Participation                         |
| DNPINFO    | TEXT 15 | Donor Non-Profit Time                       |
| DCONTIME   | TEXT 20 | Donor Contact Time                          |
| DPICKUP    | TEXT 15 | Donor Delivery System                       |
|            |         |   |
|            |         |   |
|            |         |   |

NAME OF DATABASE: House  
 NAME OF TABLE: BUSINESS  
 DESCRIPTION: This database contains all of the Businesses that your organization uses.

| NAME       | TYPE    | DESCRIPTION   |
|------------|---------|---|
| CNAME      | TEXT 30 | Company Name  |
| CTAXNUMBER | TEXT 9  | Company Tax Number                                      |
| CADDRESS   | TEXT 20 | Company Address   |
| CCITY      | TEXT 20 | Company City  |
| CSTATE     | TEXT 2  | Company State   |
| CZIP       | TEXT 9  | Company Zip + Four                                      |
| CAREACODE  | TEXT 3  | Company Area Code                                       |
| CPHONENUM  | TEXT 8  | Company Phone Number                                    |
| CFAXNUM    | TEXT 8  | Company Fax Number                                      |
| CCONTACT   | TEXT 30 | Company Contact Person                                  |
| CTYPE      | TEXT 2  | Type of Company 1-Company, 2-Individual                 |
| CNOTE      | NOTE    | Note About Company                                      |
| CSTATUS    | TEXT 3  | MBE/WBE/HBE or Non                                      |
| CLASS      | INTEGER | Enter 1   |
| CTRADE     | TEXT 1  | Company Trade 1-Construction 2-Materials                |
| CTECH      | TEXT 4  | Determined from HUD list: A-09                          |
| CPART      | TEXT 3  | Company Non-Profit Contact                              |
| CLIC       | TEXT 3  | Current License Yes or No                               |
| CLICENSE   | DATE    | Current License Date                                    |
| CLIBIN     | TEXT 3  | Liability Insurance Yes or No                           |
| CLIBEXPIR  | DATE    | Liability Insur. Expiration Date                        |
| CWORK      | TEXT 3  | Company Workman Comp. Yes or No                         |
| CWORKEXP   | DATE    | Workman Comp. Expiration Date                           |
| CREVSTAT   | TEXT 1  | Review Status A-Accept, N-Not Accept, or I-SHTF Insures |
| REVNNOTE   | NOTE    | Review Note   |
| CETHNIC    | TEXT 1  | Company Ethnicity                                       |
|            |         |   |

NAME OF DATABASE: House  
 NAME OF TABLE: NONPROFIT  
 DESCRIPTION: This database contains all of the Non-Profit organization that want materials.

| NAME        | TYPE     | DESCRIPTION                               |
|-------------|----------|---|
| NPNAME      | TEXT 30  | Non-Profit Name                           |
| NPTAXNUMBER | TEXT 9   | Non-Profit Tax Number                     |
| NPADDRESS   | TEXT 20  | Non-Profit Address                        |
| NPCITY      | TEXT 20  | Non-Profit City                           |
| NPSTATE     | TEXT 2   | Non-Profit State                          |
| NPZIP       | TEXT 9   | Non-Profit Zip + Four                     |
| NPAREACODE  | TEXT 3   | Non-Profit Area Code                      |
| NPPHONENUM  | TEXT 8   | Non-Profit Phone Number                   |
| NPFAXNUM    | TEXT 8   | Non-Profit Fax Number                     |
| NPCONTACT   | TEXT 30  | Non-Profit Contact Person                 |
| NPTYPE      | TEXT 15  | Type of Non-Profit                        |
| NPNOTE      | NOTE     | Note About Non-Profit                     |
| NPSTATUS    | TEXT 3   | Non-Profit Status (Act-Active, In-Inacti) |
| NPAPPLDT    | DATE     | Non-Profit Application Date               |
| NPEXPIR     | DATE     | Non-Profit Expiration Date                |
| NPFEQMAT    | TEXT 80  | Most Frequently Used Materials            |
| NPVOL       | TEXT 30  | Volume of Work Predicted                  |
| WISH1       | TEXT 30  | First Material that NP Wants              |
| WISH2       | TEXT 30  | Second Material that NP Wants             |
| WISH3       | TEXT 30  | Third Material that NP Wants              |
| WISH4       | TEXT 30  | Fourth Material that NP Wants             |
| NPDEPOSIT   | CURRENCY | Non-Profit Deposits                       |
| NPBEGIN     | CURRENCY | Non-Profit Beginning Balance              |
| DPICK1      | TEXT 20  | Name of First Pickup Person               |
| DPICK2      | TEXT 20  | Name of Second Pickup Person              |
| DPICK3      | TEXT 20  | Name of Third Pickup Person               |
| DPICK4      | TEXT 20  | Name of Fourth Pickup Person              |
|             |          |   |

Add/discard Go to Exit

BID INVITATION FORM

| BID# | PROP# | CONTRACTOR<br>TAX NUMBER | CONTRACTOR<br>NAME | TECH<br>SPEC | BID DATE | BID AMOUNT |
|------|-------|--------------------------|--------------------|--------------|----------|------------|
|------|-------|--------------------------|--------------------|--------------|----------|------------|

Contractor Validation List

- A-01 Air Conditioning/Heating
- A-02 Architect
- A-03 Carpentry/Wood Work
- A-04 Concrete Work
- A-05 Demolition
- A-06 Electrical
- A-07 Engineer
- A-08 Excavating/Demolition
- A-09 General Contractor
- A-10 Glass Work
- A-11 Insulation
- A-12 Iron Work
- A-13 Landscape Architech

Form: BIDINVFM Table: BIDINFO

Field: CTECH

Page: 1

Add/discard Go to Exit

COMMITTEE ASSIGNMENT INFORMATION

| Committee<br>Numb | Identification<br>Committee List         | e |
|-------------------|--|---|
| 001               | Board                                    |   |
| 002               | Fund Development Commitee                |   |
| 003               | Family Selection Committee               |   |
| 004               | Acquisition and Rehabilitation Committee |   |
| 005               | Public Relations Committee               |   |
| 006               | Finance Committee                        |   |
| 007               | Executive Committee                      |   |
| 008               | Neighborhood Planning Committee          |   |
| 009               | Community Advisory                       |   |
| 010               | Personnel                                |   |
| 011               | Nominating Committee                     |   |
| 012               | Fundraising Event Sub-Committee          |   |
| 013               | House to House                           |   |

Form: COMMINFO Table: COMMTAB

Field: COMMNUM

Page: 1

---

## **SPEC-tacular DATA<sup>®</sup> ENTRY SCREENS**

### **SECTION 1 AGENCY INFORMATION**

Agency Information Screen

Contact Information

### **SECTION 2 PARTICIPANT INFORMATION**

Participant Information

Participant Activity Information

Volunteer Skill Information

### **SECTION 3 APPLICANT INFORMATION**

Participant Information

Applicant Statistics Form

### **SECTION 4 COMMITTEE INFORMATION**

Committee Information

Committee Assignment Information

### **SECTION 5 CONTRACTOR INFORMATION**

Contractor Information

Contractor Activity Form

Bid Invitation Form

### **SECTION 6 COST SPECIFICATION INFORMATION**

Cost List Update Form

Job Activity Input Form

Material Wishlist Information

### **SECTION 7 FUNDRAISING INFORMATION**

Donor Activity Information

Donor Information

Fund Raising Information

Pledge Information

### **SECTION 8 GRANT FUND INFORMATION**

Grant Fund Form

### **SECTION 9 PROPERTY INFORMATION**

Property Information

Property Input Form

Property Tracking Form

Payment Information

Add/discard Go to Exit

Screen 1 of 2

PARTICIPANT INFORMATION

Identification Number: Name Type: Active Member: 1

First Name: Prefix:
Middle Name: Suffix:
Last Name:

2nd First Name: 2nd Prefix:
2nd Middle Name: 2nd Suffix:
2nd Last Name:

Address: Address Type:

City: State: Zip:
Country: USA Revision Date:

Home Phone: ( ) - Work Phone: ( ) -
Other Phone: ( ) - Fax Phone: ( ) -

Other Description:

Form: PARINFO2 Table: NAMETAB Field: NIDNUMR Page: 1

Add/discard Go to Exit

Screen 2 of 2

PARTICIPANT INFORMATION

Employer:
Referred By:

Applicant: 0 Homeowner: 0 Board Member: 0
Volunteer: 0 Crew Chief: 0 Chair Person: 0
Donor: 0 Committee: 0 Staff Member: 0
Corporate Contact: 0 Clergy: 0 Student: 0
Public Office: 0 Newsletter:

Sweat Equity Hours:
Next Contact:
Next Action Step:

Press Shift + F3 for online help, to modify help press F2
Form: PARINFO2 Table: NAMETAB Field: EMPLOYER Page: 2

---

## **SPEC-tacular DATA<sup>®</sup> REPORTS**

- SECTION 1            AGENCY INFORMATION**
- SECTION 2            CONTRACTOR INFORMATION**
- (1) Eligible Business Listing
  - (2) Contractor Status Report
  - (3) Contractor Quick Reference Report
  - (4) MBE/WBE/HBE Report
  - (5) Invitation To Bid
  - (6) Contractor Activity Report
- SECTION 3            CLIENT INFORMATION**
- (1) Quick Client Listing
  - (2) Statistical Report 1
  - (3) Statistical Report 2
  - (4) Statistical Report 3
  - (5) Client Sweat Equity Report
- SECTION 4            COST SPECIFICATION INFORMATION**
- (1) Cost List Report (Entire)
  - (2) Cost List Report (By Trade)
  - (3) Cost Specification Report
  - (4) Contractor - Cost Specification Report
  - (5) In-House - Cost Specification Report
  - (6) Sweat Equity - Cost Specification Report
  - (7) Volunteer - Cost Specification Report
  - (8) Materials Report
- SECTION 5            DONOR INFORMATION**
- (1) Donor Quick Listing Report
  - (2) Donor Thank You Letter
  - (3) Volunteer Quick Listing Report
  - (4) Volunteer Thank You Letter
- SECTION 6            GRANT FUND INFORMATION**
- (1) Grant Balance Report
  - (2) Grant Goal Report
- SECTION 7            PROPERTY INFORMATION**
- (1) Property Report
  - (2) Property Rent Reports
  - (3) File Information (print screen)



---

GRANT DESCRIPTION REPORT  
04/20/95

| FUND#  | GRANT NAME                  | FUND YEAR | GOALS   |
|--------|-----------------------------|-----------|---|
| 0-0001 | Habitat Homeownership Grant | 94        | This should be used for minor first time homebuyer expenses.                    |
| 0-0002 | COMMUNITY DEVELOPMENT       | 91        | This grant is part of the Community Development Housing Rehabilitation Dollars. |
| 0-0003 | COMMUNITY DEVELOPMENT       | 92        | This grant is part of HOME dollars give to us by the City.                      |

---

PAGE 1

John & Jill Allen

[REDACTED]  
File # 4832

Henry Gaines

[REDACTED]

Bill & Mary Lorah- Hammond

[REDACTED]

Steve Jacobson

[REDACTED]  
File # 4838

Patricia Legg

[REDACTED]  
File # 48506

# MAIN MENU

1. Agency Information
2. Participant Information
3. Applicant Information
4. Contractor Information
5. Cost Specification Information
6. Fundraising/Grant Information
7. Property Information

## AGENCY INFO.

1. Add Agency Info.
2. Edit Agency Info.
3. Add Contact Info.
4. Edit Contact Info.
5. Add Form Letter Info.
6. Edit Form Letter Info.
7. View Table Menu
8. Report Menu
9. Validation Menu
10. Label Menu
11. Exit

VIEW TABLE MENU

REPORT MENU

VALIDATION MENU

LABEL MENU

## PARTICIPANT INFO.

1. Add Participant Info.
2. Edit Participant Info.
3. Add Participant Activity
4. Edit Participant Activity
5. Add Relation Info.
6. Edit Relation Info.
7. Add Part. Comm. Info.
8. Edit Part. Comm. Info.
9. Add Part Tech. Spec.
10. Edit Part Tech. Spec.
11. View Table Menu
12. Report Menu
13. Validation Menu
14. Exit

VIEW TABLE MENU

REPORT MENU

VALIDATION MENU

## APPLICANT INFO.

1. Add Applicant Info.
2. Edit Applicant Info.
3. Add Statistical Info.
4. Edit Salary Info.
5. View Table Menu
6. Report Menu
7. Label Menu
8. Exit

VIEW TABLE MENU

REPORTS MENU

LABELS MENU

## CONTRACTOR INFO.

1. Add Contractor Info.
2. Edit Contractor Info.
3. Add Contr. Act. Info.
4. Edit Contr. Act. Info.
5. Add Bid Select Info.
6. Edit Bid Select Info.
7. View Table Menu
8. Report Menu
9. Validation Menu
10. Exit

VIEW TABLE MENU

REPORT MENU

VALIDATION MENU

## COST SPECIFICATION INFO.

1. Add Cost List Info.
2. Edit Cost List Info.
3. Add Job Cost Info.
4. Edit Job Cost Info.
5. Add Material Wish Info.
6. Edit Material Wish Info.
7. View Table Menu
8. Report Menu
9. Validation Menu
10. Exit

VIEW TABLE MENU

REPORT MENU

VALIDATION MENU

## FUNDRAISING/GRANT INFO.

1. Add Gift Info.
2. Edit Gift Info.
3. Add Donation Info.
4. Edit Donation Info.
5. Add Fundraising Info.
6. Edit Fundraising Info.
7. Add Pledge Info.
8. Edit Pledge Info.
9. Add Grant Fund Info.
10. Edit Grant Fund Info.
11. Load Fiscal Info.
12. Edit Fiscal Info.
13. View Table Menu
14. Report Menu
15. Validation Menu
16. Exit

VIEW TABLE MENU

REPORT MENU

VALIDATION MENU

## PROPERTY INFO.

1. Add Mortgage Info.
2. Edit Mortgage Info.
3. Add Property Info.
4. Edit Property Info.
5. Add File Info.
6. Edit File Info.
7. View Table Menu
8. Report Menu
9. Validation Menu
10. Exit

VIEW TABLE MENU

REPORT MENU

VALIDATION MENU

---

## **SPEC-tacular DATA<sup>®</sup> DATA MENUS**

### **MAIN MENU**

#### **SECTION 1 AGENCY INFORMATION**

View Table Menu  
Report Menu  
Label Menu

#### **SECTION 2 PARTICIPANT INFORMATION**

View Participant Information  
Participant Reports  
Participant Validation Tables

#### **SECTION 3 APPLICANT INFORMATION**

View Table Menu  
Validation Menu

#### **SECTION 4 COMMITTEE INFORMATION**

Committee Tables  
Committee Reports

#### **SECTION 5 CONTRACTOR INFORMATION**

View Contractor Tables  
Contractor Reports  
Contractor Validation Table

#### **SECTION 6 COST SPECIFICATION INFORMATION**

Cost Specification Tables  
Cost Specification Reports  
Cost Specification Validation Reports

#### **SECTION 7 FUNDRAISING INFORMATION**

View Table Menu  
Fundraising Reports  
Fundraising Validation Table

#### **SECTION 8 GRANT FUND INFORMATION**

View Table Menu

#### **SECTION 9 PROPERTY INFORMATION**

View Property Tables  
Property Reports

- 
1. Agency Information
  2. Participant Information
  3. Applicant Information
  4. Committee Information
  5. Contractor Information
  6. Cost Specification Information
  7. Fundraising Information
  8. Grant Fund Information
  9. Property Information
  10. Exit

SPEC-tacular DATA Main Menu  
Database: HOUSEBK

# **SPEC-tacular DATA ©**

NONPROFIT EDITION

## **TRAINING MANUAL INDEX**

|             |  | <b>PAGES</b> |
|-------------|--|--------------|
|             | INTRODUCTION                                       | 1-7          |
| SECTION 1)  | AGENCY INFORMATION                                 | 8-9          |
| SECTION 2)  | CONTRACTOR INFORMATION                             | 10-17        |
| SECTION 3)  | CLIENT INFORMATION                                 | 18-25        |
| SECTION 4)  | COST SPECIFICATION AND JOB<br>ACTIVITY INFORMATION | 26-32        |
| SECTION 5)  | DONOR AND VOLUNTEER<br>INFORMATION                 | 33-39        |
| SECTION 6)  | GRANT FUND INFORMATION                             | 40-43        |
| SECTION 7)  | PROPERTY, RENT AND FILE<br>INFORMATION             | 44-50        |
| SECTION 8)  | REPORTS  | Section 8    |
| SECTION 9)  | SAMPLE FORMS                                       | Section 9    |
| SECTION 10) | ATTACHMENTS<br>Source Code                         | Section 10   |

---

## **INTRODUCTION**

Getting organized can be very time consuming and labor intensive. This computer application was designed to help nonprofit organizations and local unit of government get organized and stay organized through the year. The application provides the data that is necessary to comply with many of the federal and local reporting requirements. The overall objective of the application is to be user friendly and efficient.

All of the information that is requested to be filled in is very important. There is a wide variety of reports available from the system, but the information has to be put into the system to get the reports out of the system.

There are some key variables in the application. Key variables are how the information is either linked, sorted, or referenced. A client number would be considered a key variable for client information. A job number would be a key variable for construction activities. Property is more quickly identified by a property number instead of address, since some people would use the word North, while others would simply use an N. All contractor and volunteer information is more efficiently organized if standard numbers are used; the most common being the federal tax number. We have eliminated many dashes, so a social security number is just as long as a contractor's federal tax number, however you still need a dash in a phone number. Listed below is a key variable chart for this system.

**Chart 1**

| <b>KEY VARIABLE CHART</b> |   |
|---------------------------|---|
| 1)                        | Agency Information - <b>Agency#</b>   |
| 2)                        | Contractor Information - <b>Ctaxnumber</b>  |
| 3)                        | Client Information - <b>Client#</b>   |
| 4)                        | Cost Specification Information - <b>Job#</b>                                      |
| 5)                        | Donor Information - <b>Dtaxnumber</b><br>Volunteer Information - <b>Taxnumber</b> |
| 6)                        | Grant Fund Information - <b>Fund#</b>   |
| 7)                        | Property Information - <b>Prop#</b>   |

---

## AGENCY INFORMATION

AGENCY NUMBER: \_\_\_\_\_

AGENCY TAX NUMBER: \_\_\_\_\_

AGENCY NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_ ZIP: \_\_\_\_\_

PHONE NUMBER: (\_\_\_\_) \_\_\_\_-\_\_\_\_

AGENCY DIRECTOR: \_\_\_\_\_

AGENCY TARGET AREA: \_\_\_\_\_



## BUSINESS INFORMATION

COMPANY NAME: \_\_\_\_\_

COMPANY TAX NUMBER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

STATE: \_\_\_\_\_

ZIP: \_\_\_\_\_

AREA CODE: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_ - \_\_\_\_\_

FAX NUMBER: \_\_\_\_\_ - \_\_\_\_\_

CONTACT: \_\_\_\_\_

COMPANY TYPE: \_\_\_\_\_

MBE/WBE/HBE OR NON: \_\_\_\_\_

COMPANY CLASS.: \_\_\_\_\_ COMPANY ETHNICITY: \_\_\_\_\_

COMPANY TRADE: \_\_\_\_\_ COMPANY TECH. SPEC.: \_\_\_\_\_

CURRENT LICENSE: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

LIB. INS.: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

WORK. COMP. INSUR.: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

REVIEW STATUS: \_\_\_\_\_

EXTERIOR

| Item   | Pass/<br>Fail | List #<br>Repair | X | List #<br>Replace | X | #<br>of<br>units | Unit<br>Measure | Unit<br>Cost<br>Factor | Contractor<br>In-House<br>Sweat Equity<br>Volunteer | Priority<br>1-High<br>5-Low | Note |
|--|---------------|------------------|---|-------------------|---|------------------|-----------------|------------------------|---|-----------------------------|------|
| <b>Siding</b>  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Aluminum   |               | SI1005           |   | SI1007            |   |                  |                 |                        |   |                             |      |
| Brick  |               | SI1004           |   |                   |   |                  |                 |                        |   |                             |      |
| Cedar  |               | SI1002           |   |                   |   |                  |                 |                        |   |                             |      |
| Paint  |               | PA1001           |   |                   |   |                  |                 |                        |   |                             |      |
| Vinlyn   |               | SI1002           |   | SI1009            |   |                  |                 |                        |   |                             |      |
| Wood   |               | SI1001           |   | SI1003            |   |                  |                 |                        |   |                             |      |
| Wash Siding  |               | MS1002           |   |                   |   |                  |                 |                        |   |                             |      |
| Paint  |               | PA1003           |   |                   |   |                  |                 |                        |   |                             |      |
| Aluminum   |               |                  |   | PA1004            |   |                  |                 |                        |   |                             |      |
| Scrape & Pre-<br>pare Surface -<br>Owner to<br>Paint |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Porch  |               |                  |   | SI1008            |   |                  |                 |                        |   |                             |      |
| Aluminum   |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| <b>Trim</b>  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Apron  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Facia Metal  |               |                  |   | RO1029            |   |                  |                 |                        |   |                             |      |
| Frieze   |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Paint  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Rakes  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Soffit   |               |                  |   | SI1014            |   |                  |                 |                        |   |                             |      |
| Facia  |               |                  |   | SI1010            |   |                  |                 |                        |   |                             |      |
| Aluminum   |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Window Trim  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Venting Attic  |               |                  |   | SI1012            |   |                  |                 |                        |   |                             |      |
| Alum. Soffit   |               |                  |   | SI1015            |   |                  |                 |                        |   |                             |      |
| <b>Drive/Sidewalk</b>                                |               |                  |   | SI1011            |   |                  |                 |                        |   |                             |      |
| Asphalt over<br>Concrete/Dr                          |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Asphalt/Dr   |               | DW1003           |   | DW1005            |   |                  |                 |                        |   |                             |      |
| Asphalt/Sid  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Concrete/Dr  |               |                  |   | DW1002            |   |                  |                 |                        |   |                             |      |
| Concrete/Sid   |               |                  |   |                   |   |                  |                 |                        |   |                             |      |

EXTERIOR

| Item                      | Pass/<br>Fail | List #<br>Repair | X | List #<br>Replace | X | #<br>of<br>units | Unit<br>Measure | Unit<br>Cost<br>Factor | Contractor<br>In-House<br>Sweat Equity<br>Volunteer | Priority<br>1-High<br>5-Low | Note |
|---------------------------|---------------|------------------|---|-------------------|---|------------------|-----------------|------------------------|---|-----------------------------|------|
| Gravel/Dr                 |               |                  |   | DW1006            |   |                  |                 |                        |   |                             |      |
| Handicap<br>Accessible    |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Slope                     |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Steps                     |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Remove<br>Existing Drive  |               |                  |   | DW1001            |   |                  |                 |                        |   |                             |      |
| <b>Foundation</b>         |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Back Fill                 |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Block                     |               | FO1004           |   |                   |   |                  |                 |                        |   |                             |      |
| Concrete                  |               | FO1002           |   |                   |   |                  |                 |                        |   |                             |      |
| Excavation                |               |                  |   | FO1001            |   |                  |                 |                        |   |                             |      |
| Footing                   |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Rat Wall                  |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Vents                     |               |                  |   |                   |   |                  |                 |                        |   |                             |      |
| Waterproofing             |               |                  |   | FO1013            |   |                  |                 |                        |   |                             |      |
| Weep Tile                 |               |                  |   | FO1007            |   |                  |                 |                        |   |                             |      |
| Remove Slab<br>& Footings |               |                  |   | DW1004            |   |                  |                 |                        |   |                             |      |
| Paint/KILZ                |               | PA1014           |   |                   |   |                  |                 |                        |   |                             |      |
| Sealcoat<br>Existing      |               | DW1007           |   |                   |   |                  |                 |                        |   |                             |      |
| Grading                   |               | GR1002           |   | GR1001            |   |                  |                 |                        |   |                             |      |
| Seal Cracks               |               | FO1003           |   |                   |   |                  |                 |                        |   |                             |      |
| Mortar                    |               | FO1005           |   |                   |   |                  |                 |                        |   |                             |      |
| Bleeders                  |               |                  |   | FO1009            |   |                  |                 |                        |   |                             |      |
| Drain Tile                |               |                  |   | FO1008            |   |                  |                 |                        |   |                             |      |
| Cracks                    |               |                  |   | FO1006            |   |                  |                 |                        |   |                             |      |
| Crawl Space               |               |                  |   | FO1016            |   |                  |                 |                        |   |                             |      |
| Crawl Space<br>Door       |               |                  |   | MS1003            |   |                  |                 |                        |   |                             |      |
| Window Well               |               |                  |   | GR1003            |   |                  |                 |                        |   |                             |      |
| Floor                     |               |                  |   | FO1010            |   |                  |                 |                        |   |                             |      |
| Piers to Carry<br>Load    |               |                  |   | FO1011            |   |                  |                 |                        |   |                             |      |

## AGENCY IDENTIFICATION

**Are You?** A Non-Profit Housing organization or a local unit of government that has any combination of the following:

- **Non-Profit Housing Organization**
- Receiving CDBG or HOME Dollars
- Using Sweat Equity to help maintain affordable housing
- Operating a purchase-rehab-resale program
- Starting to become a CHDO
- In-House Rehabilitation Staff
- Strong Volunteer Labor Force

- Local Unit of Government**
- Receiving CDBG or HOME Dollars
- Using Non-Profit Sub-Recipients
- In-House Rehabilitation Staff

**IF YOU ANSWERED YES,  
THIS SOFTWARE IS FOR YOU!!**



## MAXIMIZING GRANT FUNDS

This software was designed cooperatively with a non-profit housing organization. Their needs were identified and addressed as the system was designed. One of the most significant illustrations of this is the ability to write the cost specifications with the understanding that parts of the project would be completed by contractors, in-house labor, volunteers or sweat equity participants. This allows the user to maximize the organization's grant funds and better utilize all of the resources.

Since the software was interactively designed by knowledgeable community development planners and experienced non-profit housing directors, it takes into consideration the needs of both the non-profit organization and the local unit of government (city/county). It has easy to generate reporting features, to allow you to give the best representation of your organization's activities and meets many of the Housing and Urban Development (HUD) statistical reporting requirements. It is also continually being developed to ensure that any consolidated plan reporting objectives are met.

The software is organized to be user friendly, with a comprehensive training

manual, to allow for a better understanding of the software and its features. This software is designed to grow with your organization. Along with the training manual there are easy to use forms which allow for easier data entry.

**If you are receiving CDBG funds then this is the program for you. Many of the federal reporting requirements were taken into consideration during the development of this software.**

**Jane Richardson  
Director, Salem Housing**

### HOW DID IT ALL BEGIN?

This software is the end product of a Master's Thesis in Public Administration from the University of Michigan, **Computers' Impact on Decision Making In Public Administration: Case Study Salem Housing Task Force**. The goal of the paper was to determine the impact computers have on decision making. Through significant research it was determined that, with the assistance of computers, staff time can be saved and grant funds can be better utilized.

Any comments about the software or the issue of Computers Impact on Decision Making would be greatly appreciated. Please contact Ms. Goldstein PRO-SPEC ANALYSIS Inc., 5337 Wakefield, Grand Blanc, MI, 48439 or call (810) 603-0699.

# ANSWERING YOUR NEEDS!

- ◆ Better utilization of staff and grant resources
- ◆ Controlling rehabilitation cost using computerized specification writing for:
  - Contractors
  - In-House Staff
  - Volunteers
  - Sweat Equity Participants
- ◆ Managing clients and sweat equity hours
- ◆ Report generators for both federal and local requirements:
  - Statistics for HUD Reports
  - Internal Analysis
- ◆ Property inventory of cost and file tracking information
- ◆ Donor and Volunteer activity information and Thank-you letters
- ◆ Grant Information for goals and objectives for grants received

TO:

PRO-SPEC ANALYSIS Inc.  
5337 Wakefield Road  
Grand Blanc, MI 48439

Place  
Stamp  
Here

# SPEC-tacular DATA ©

Public Administration  
Software

**PRO-SPEC ANALYSIS Inc.**

5337 Wakefield Road  
Grand Blanc, MI 48439  
(810) 603-0599  
1-(800) GEEK-OUT