

## **Oakland County Empowers Business Knowledge Workers with Access to Information**

*by Dale Kukla, Manager, DISC*

### **The Program**

An information revolution is sweeping corporate America today, and Oakland County finds itself, once again, on the leading edge of technology. This story spotlights Data Warehousing and Decision Support, a relatively new Information Technology program. This program is designed to turn the mountains of data that are stored in our mainframe and other computer systems into validated business decisions, useful to the re-engineering of business processes and the improvement of County service delivery models.

The three-fold mission of the Data Warehouse Team is to:

- ◆ Empower County departments, agencies and CVT's with easy access to integrated information for end user decision support purposes.
- ◆ Provide an enterprise-wide base of descriptive data attributes that can be linked with our County Geographic Information System for analytical purposes.
- ◆ Provide data staging for the County Enhanced Access Program.

All three of the above areas are interrelated, strategic in nature, and are being managed within the Digital Information Service Center (DISC) division of Information Technology.

### **How Will this Program Help Me?**

In the past, when you needed a special report, your choices were limited. You either had to submit a request to an IT supervisor or you had to re-key the source information into Lotus or Access first. This approach was often time prohibitive, tedious, or error prone. With Data Warehousing, the data is organized and cataloged into a standard format for you, and data views called "**Universes**" are provided. You are then given Business Objects decision support software and related training. With this in place, you are empowered to create whatever queries, reports and graphics you might need, limited only by your own imagination. No more re-keying. No more waiting. No more lost opportunity!

### **How Are We Organized to Serve You?**

The Data Warehouse Team, supervised by Ed Sager, is organized to provide all the back-end services necessary to help you accomplish your business objectives. Business Analysts are trained to identify your key business requirements. Data Acquisition Specialists extract the data from the mainframe and other sources and load it into the warehouse. Data Quality Specialists are concerned with analyzing your data to determine the need for cleansing. Data Warehouse Architects know how to structure your data to provide speed and ease of access. Data Access Specialists focus on

defining the data Universes or views that you will need. All of this activity is supported with the best methodologies and software tools available in the industry today.

## **How is the Data Organized?**

Our enterprise data warehouse architecture is divided into multiple tiers. The first tier is called the **Operational Data Store (ODS)**, which stores current information that is no more than one week old and is used to do operational reporting. The second tier is the **Data Warehouse (DW)** which stores periodic “snap-shots” of your data and is used to do trend analysis over time. The third tier is comprised of **Data Marts** that represent specialized summaries of the ODS and DW data that are used for special studies or to provide data for Enhanced Access products. The fourth tier represents **Data Cubes** that you download to your desktop or laptop for your own personal use. You may also move the data into other standard software packages like Excel or Access.

## **Data Warehouse Standards**

The Data Warehouse Team uses the Prism Iterations development methodology to implement new projects. This standard methodology starts with gaining an understanding of your business needs and management metrics. We stress the need for each division to do strategic business planning prior to embarking on a data warehouse project with us. There is much interaction between you and IT throughout the entire process.

## **Success Stories**

Our first data warehouse project was a huge success. We worked with the Equalization Division to position up to 900 data attributes per land parcel into our warehouse. This data is currently being accessed by appraisers and work group leaders to provide ad hoc reporting that enhances the overall efficiency within the division. Bob Vandermark of the Equalization Division states, “The data warehouse has made it possible to do things that could only be dreamed of in the past. It would take days and weeks to answer questions that can now be answered in minutes. It’s now also possible to answer questions about the effect of proposed legislation or changes in state tax commission policy on the County’s tax base, quickly and with accuracy.”

## **Program Leadership**

Three people need to be recognized for their leadership contributions on this program. Bob Daddow, M&B Director, has been the champion behind the funding and the setting of program priorities. John Mahoney, IT Director, provided the technology vision necessary to get this start-up program in gear. And lastly, but by no means least, Bob Vandermark, Equalization Manager, for providing the business vision needed to translate this new technology into a very useable business tool for his staff. Hats off to all three!

## **How Can My Division Get Started?**

It all starts by contacting Dale Kukla, Manager of DISC. Dale will schedule a time to present a one hour Data Warehouse Orientation seminar to your division. He will also discuss how you can immediately get started down the road toward making decision support a reality for your division.

### **County-Wide Publish Drive Reorganization - o:\infotech\training**

Information Technology has recently reorganized the structure of their county-wide publish directory, specifically “**o:\infotech\training**”. Folders (or subdirectories) have been added to help organize various files. Please check these folders periodically for new files and updated information.

In an effort to help with the conversion to the Microsoft Office Professional 97 suite, an “**OFFICE97**” folder has been added. This folder will include documentation, keyboard shortcuts, keyboard templates and frequently asked questions relating to Windows NT, Word 97, Excel 97 and Access 97. *Note: The files saved to the “OFFICE97” folder will be saved in the appropriate Microsoft software application format, which will typically be Word 97.*

### **Information Technology Training Center Quarterly Update**

The second quarter training schedule (April, May and June 1999) is now available for your review in WordPerfect format on the “O” drive, specifically “**o:\infotech\training\schedule.doc**”. If you cannot find a class listed on the schedule which you need to take, or the dates and times are not convenient for you, please contact the Information Technology (IT) receptionist at (248) 858-0810. Your name can be placed on a waiting list. When any class has a waiting list of six or more individuals, IT will attempt to open an additional class.

As part of the Oakland County massive PC upgrade (see January 1999 IT quarterly newsletter), we are no longer scheduling classes for the following software unless a need arises:

**Windows 3.1 / 95**  
**WordPerfect 6.1**  
**Lotus 1-2-3 v. 5.0**  
**Microsoft Access 2.0**  
**Novell GroupWise 4.1**

Starting April 1999, the Information Technology Training center is offering half-day workshops. These workshops will focus on Word 97, Excel 97 and Access 97. The workshops are not a substitute for training classes. Users must have completed the required training classes in order to attend a workshop. Users will bring their documents on diskette which need to be converted. The workshops will be held in one of the IT training rooms so the user can work at a PC to convert their documents. An instructor or Office Automation staff member will be in the training room to provide assistance.

To register for a workshop, please submit a workshop registration form to Lisa Corpus. The workshop registration form is now available in Word format, on the “O” drive,

specifically “o:\infotech\training\workshop.doc”. The cost of a half-day workshop is \$50.00. If you have questions regarding the workshops, please contact Lisa Corpus at (248) 858-1681 or Tina Ramey at (248) 858-4082.

Due to popular demand, we will be adding Introduction and Advanced PowerPoint 97 classes to the 3rd Quarter 1999 training schedule. Look for more updates in future issues of the Information Technology Quarterly.

### ***Earth Day***

April 22, 1999 is Earth Day. This is a day to raise awareness of keeping the environment healthy and to reflect on ecological issues.

Help conserve the environment by recycling your printer's toner cartridges. Hewlett Packard provides a free UPS pickup for used HP toner cartridges. Call 1-800-340-2445 to receive return-mailing labels.

### ***Year 2000 - Embedded Chip Systems***

In past issues of Information Technology Quarterly we have written about the different phases of the Oakland County Year 2000 conversion project. This project focuses on making 26 mainframe applications and 3,275 mainframe programs Year 2000 compliant.

Another aspect to the Year 2000 “millennium bug” is embedded chip systems. Embedded chip systems are devices used to control, monitor or assist the operation of equipment, machinery or plants.

“Embedded” reflects the fact that they are an integral part of the system. These are chips and programs, not readily accessible or even visible, that are integral parts of control and production equipment. Many must be decoded and fixed individually by hand. In many cases their embeddedness may be such that their presence is far from obvious to the casual observer and even the more technically skilled might need to examine the operation of a piece of equipment for some time before being able to conclude that an embedded control system was involved in its functioning. At the other extreme, a general-purpose computer may be used to control the operation of a large complex processing plant, and its presence will be obvious.

The very simplest embedded systems are capable of performing only a single function or a set of functions to meet a single predetermined purpose. In more complex systems, the functioning of the embedded system is determined by an application program that enables the embedded system to be used for a particular purpose in a specific application. The ability to have programs means that the same embedded system can be used for a variety of different purposes.

Many embedded programs cannot be fixed at all because they are inscribed on silicon chips. In those cases, whole pieces of equipment will have to be replaced.

Embedded chips can be found in the following equipment/applications:

**Multi-loop Control & Monitoring** - DCS, SCADA, telemetry

**Panel Mounted Devices** - control, display, recording and operations

**Safety & Security** - alarm and trip systems, fire and gas systems, buildings and facilities security

**Analytical Systems** - laboratory systems; on-line/plant systems

**Electrical Supply** - supply, measurement, control, protection

**Tools** - for design, documentation, testing, maintenance

### **What Can You Do?**

While software is available to hunt for 00 dates in programs, few such tools exist for a vast number of so-called embedded systems in manufacturing.

After you have identified machines and systems that probably have embedded systems, write or call the manufacturer and ask if their system or device is Year 2000 compliant. Ask for an official letter from the manufacturer stating that their system or device will work after the century changes.

Look for more articles on the Year 2000 in future issues of the Information Technology Quarterly.

## ***Massive PC Upgrade Update – Getting Prepared***

In the first quarter, 1999 IT Quarterly Newsletter, IT wrote about the county-wide upgrade of approximately 1,600 personal computers. As part of this upgrade, it is important to be prepared for this transition by having all computer data backed up from your existing PC prior to the anticipated installation date.

**Backup** is a program on your personal computer that provides a security measure to prevent loss of data due to viruses, system “glitches” or system “crashes”. **Backup** allows you to have a condensed copy of your computer data (files, documents, databases, etc.) on an external storage medium, such as a diskette. Detailed instructions on how to backup your PC are available for your review in WordPerfect format on the “O” drive, specifically “o:\infotech\training\windows\ win31bu.wpd or win95bu.wpd”.

# April 1999, IT Quarterly Newsletter Archive

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As a courtesy, Information Technology will perform a data transfer on the following directories at the time of installation. **Remember that you will be responsible for making sure that any and all data files that are on your machine are backed up.**

c:\wpdocs	c:\netscape\*.htm
c:\123wks	c:\office\wpwin\ - template, macros, wpdocs subdirectories
c:\data	d:\\$data\ - wpdocs, 123wks, database, gwmail, inet, mydocuments subdirectories
c:\access\*.mdb & *.ldb	
c:\windows\*.crd	

Windows 3.1 users should move any of the following files to the c:\data directory to ensure a complete backup of your data.

**Paintbrush Files** – Defaults to c:\windows

**MS Access Files** – Defaults to c:\access

**Netscape Bookmarks** – Defaults to c:\netscape\bookmark.htm

**Netscape Address Book** - Defaults to c:\netscape\address.htm

**Card Files** – Defaults to c:\windows

## Windows NT Backup

The new NT workstations are equipped with a 3.5" LS-120 floppy disk drive that can read and write to either a standard 3.5" 1.44MB floppy diskette or a 120MB SuperDisk. Since one SuperDisk will hold the equivalent of 83 single 3.5" floppy disks most County employees will be able to save all of their data onto a single SuperDisk. If you are saving more than 120MB of data when the first SuperDisk is full you will be prompted to insert another disk and your data will span to the next disk. Procedures for copying data to a SuperDisk will be provided to the user upon installation. SuperDisks can be purchased through Staples Business Advantage.

## Windows 3.1 Card Files

Microsoft has chosen not to include the **Card File** program with Windows 95 or NT software. **Card File** is commonly used as a "Rolodex" to store names, addresses and phone numbers. Unfortunately, there is no software available to easily and accurately convert this data into a useable format in any Windows 95 or NT program.

If you wish to keep your **Card File** data, you will need to choose from the following options:

1. Print a hard copy of the entire **Card File** and re-enter the data into a software application you find suitable for your needs.
2. Copy data from the **Card File** and paste into a software application you find suitable for your needs. *Note: You will have to copy each card individually.*

Keep in mind that whatever software application you choose you may have to convert into a Microsoft NT or Office 97 software application. It is recommended that you keep

your data in basic text format (i.e. WordPerfect, Notepad) until you have chosen which Microsoft NT or Office 97 application you will store your data in.

Look for more news/updates in future issues of the Information Technology Quarterly.

### ***The “O Drive” Continues to Evolve***

The county-wide publish drive, commonly referred to as the “O Drive”, is continuing to grow and change. Because this drive changes often with new and updated information, it is a good practice to open the files from the “O Drive” each time rather than saving the file to your local hard drive and accessing it from there. This will ensure that you are accessing the most current information and up-to-date forms.

The following files have recently been added to the “O” drive:

#### **Garage Vehicle Authorization Form**

o:\supsrvs\garage\useveh.wpd

#### **Materials Management Auction Inventory Sheet**

o:\supsrvs\matmgt\aucinven.wk4

#### **1999 Personnel Salary Schedule**

o:\persnnel\scheduls\salary

#### **IT Workshop Registration Form**

o:\infotech\training\workshop.doc

The following files have recently been modified:

#### **IT Training Registration Form**

o:\infotech\training\register.frm

#### **MB1 Approval and Cash Advance Request for Travel Form**

o:\mgmtbdgt\forms\mb1.wpd

If you have an “O Drive” file that you have added or modified and want to announce this county-wide, via Broadcast email, please send your request to Janette McKenna.

### ***Helpful Internet Web Sites***

Need to plan a business trip? Try **www.expedia.com** to search for flights, reserve a room, or rent a car.

For point-to-point driving directions and maps, checkout **www.maps.yahoo.com**.

### *Novell GroupWise 5.5 Upgrade*

As we announced in the January 1999 Information Technology Quarterly newsletter, we are moving forward with the GroupWise upgrade to version 5.5. The primary reason for the upgrade is to enhance the efficiency of the GroupWise system.

As of April 15, 1999, the back-end of the Novell GroupWise system has been upgraded. You will not see any difference in the appearance of GroupWise until you are upgraded to the Windows NT operating system.

Once you have been upgraded to the Windows NT operating system, you may find it necessary to take a Novell GroupWise 5.5 training class. IT has added Introduction to Novell GroupWise 5.5 classes to the 2nd Quarter 1999 training schedule. This schedule is available for your review in WordPerfect format on the "O" drive, specifically, "**o:\infotech\training\schedule.doc**".

### *Help Desk System Upgraded*

Due to the conversion to the Windows NT operating system, it was necessary to upgrade our QSupport Help Desk System to the new Quetzal SC Help Desk System.

Although this system will operate similar to QSupport, the **QMail** component has not been activated to receive and log help desk calls directly from GroupWise to Quetzal SC.

We are currently asking that you please refrain from sending any Novell GroupWise messages through the **QMail** component to the **QDAEMON** mailbox. Once the **QMail** component is operating, IT will notify departments via Broadcast email.