Desktop Standards May Be Changing

Several significant events are happening that are causing us to reconsider our desktop software strategy. The state is on the verge of upgrading desktops from 16-bit applications (Windows 3.x) to 32-bit applications (Windows 95/NT), MT PRIME will be deployed soon, and a new E-Mail/Groupware system is being selected. In order to achieve a high level of integration between all these systems, our desktop software strategy is being reconsidered.

Since PCs first appeared on desktops in the early 1980s, we have used a “best-of-breed” strategy for selecting software. This means selecting the best product available to meet specific needs. The industry trend in recent years has been to move toward suites, a bundled set of applications from one software manufacturer. Using the “best-of-breed” strategy, ISD has always moved forward by upgrading to newer versions of state standard software when appropriate. Now ISD, in conjunction with the agencies and advisory groups are re-evaluating the entire desktop as we move forward with technology.

At their October meetings, both the Information Technology Advisory Council (ITAC) and the Information Technology Managers Council (ITMC) gave preliminary approval to change to a suite strategy and to include the E-Mail/groupware selection in that suite strategy. ITAC requested that more detailed cost/benefit information be presented for legislative review at the November meeting of the Joint Oversight Committee on State Management Systems. ITAC will then consider final approval at their December meeting.

As a result of all of this, ISD has canceled the E-Mail RFP and is issuing a new RFP for a suite (including E-Mail). Keep in touch with your ITMC or ITAC representative for the latest word on this important decision.
ISD is Moving!

New projects, new FTE's - the Mitchell Building just wasn't big enough for us! Therefore, part of ISD's Systems Support Bureau has moved to 2550 Prospect Avenue (just east of I-15 near WalMart). Two sections of SSB; the Application Development section and the End User Systems Support section, have moved to the Prospect Ave. building, while the third SSB section, Systems Development Support, remains in the Mitchell Building. We are excited about having a nice, newly remodeled facility, but being off the Capitol complex will present challenges for maintaining the level of customer service we like to provide. If you get a chance, stop by to see us in our new location!

The space freed up in the Mitchell Building will be used by other ISD bureaus. You'll notice quite a bit of change as we readjust and move workgroups around in the Mitchell Building, so please bear with us. While some of the familiar office locations may change, you can still reach us at the same phone numbers.

MT PRRIME is Up and Running

The MT PRRIME team set up shop on the first floor of the capitol. On location are 31 state employees from 11 separate agencies, and 15 Andersen Consulting representatives. During the next couple of months the team will be involved in learning the PeopleSoft modules that will be implemented. The learning process is expected to flow throughout the two year project time frame, but the initial training will enable the teams to begin determining the hows, what's, when's, and any other direction considerations.

The team recently completed defining and preparing project responsibilities, detailing risks, and establishing timelines. The group also developed a mission statement and project objectives. The mission statement is:

To create a statewide information system to more effectively manage state resources and serve the citizens of Montana.

The MT PRRIME staff will be preparing and providing information throughout the implementation process. A publication that more fully explains MT PRRIME, talks about each team, discusses issues and concerns, and answers regularly asked questions is being developed and will be included with your pay check in the near future.

For more information about MT PRRIME, please contact Anita Varone MT PRRIME at 444-2013, ZIP! or E-Mail at avarone@mt.gov.

Calendar of Events

November 5
Information Technology Managers Council (ITMC)
8:30-10:30am, Rm 108, Capitol

November 12
Montana GIS
9:30am-3:00pm, Rm 312-2, Capitol

November 18
Joint Oversight Committee on State Management Systems
9:00am-4:00pm, Rm 104, Capitol

December 10
The Information Technology Advisory Council (ITAC)
8:30-11:30am, Rm 108, Capitol

December 3
Information Technology Managers Council (ITMC)
8:30-10:30am, Room 111, Metcalf Building
Voice Mail

The impressions you make on the citizens of Montana are extremely important. Especially the next time voting time comes around and they get to decide if your job is important. We must remember that everyone, including our fellow state employees, are taxpayers in this State. That is one of many good reasons to tailor your voice mail greeting to be helpful to the people who will be hearing it and to remember to keep your message timely. Nothing frustrates a person more than to hear a vague, generic voice mail greeting. You leave a message anyway, needing a reply or information from the person, but they don’t call you back for three weeks. Then you find out the person had gone on vacation but had not bothered to change their greeting or give you another extension number to call.

Usually when you call someone you need to get information from them to complete your job or to get something ‘fixed’ and you need it as soon as possible. Please remember this works both ways when creating your voice mail greeting. At this point we have over 3800 employees on our Meridian Mail system. More and more the chances are higher that a state employee will have voice mail on their telephone.

A helpful greeting should include your name, the date, the hours you are available and any absences that will prevent you from returning calls promptly. The greeting should also have information on how the caller can get additional assistance.

While we’re talking about courtesy, please remember to call forward your telephone into voice mail when you leave your desk so the person calling you doesn’t have to listen to four rings before they hear your greeting and are able to leave you a message.

Another tip: If the person’s greeting is a little too long you may press 5 and it will take you right to the beep.

If you need further information or help, please call Clara Baer of the Telecommunications Bureau at 444-2455, ZIP! or E-Mail at cbaer@mt.gov.
Compiler

With the installation of the new OS/390 operating system comes support for C and C++ application development on the state's mainframe under the OS/390 platform. This includes the following features:

- C compiler
- C++ compiler
- A set of C++ class libraries
- Collection Class Library source
- Database Access Class Library Utility
- C/C++ application development utilities
- Optional mainframe interactive debug tool

The C language is a function-oriented programming language that allows a programmer to create applications quickly and easily. It provides high-level language control statements and data types as well as many of the benefits of a low-level language.

The C++ language introduces object-oriented capabilities into the C language. It introduces classes, which are user-defined data types that may contain both data and function definitions.

OS/390 C/C++ runs in the OS/390 Language Environment (formerly LE/MVS). A "prelinker" provided with OS/390 LE combines the object modules comprising an OS/390 C/C++ application and produces a single object module that can then be link-edited and loaded for execution. You must use the prelinker with all C++ applications and if your C application is compiled with RENT, LONGNAME, DLL, or IPA compile options, or run under OS/390 OpenEdition.

OS/390 C/C++ applications can take advantage of the functions of these other products:

- Customer Information Control System (CICS)
- Cross System Product (CSP)
- Interactive System Productivity Facility (ISPF)
- Graphical Data Display Manager (GDDM)

The following procedures have been cataloged for compiling, prelinking, linking, and executing your C/C++ source:

For C applications:

- EDCCPPG Compile, prelink, link, and run
- EDC Compile
- EDCI Run the IPA Link step
- EDCCL Compile and link
- EDCCLG Compile, link, and run
- EDCCLLIB Compile and maintain an object library

For C++ applications:

- CBCC Compile
- CBCI Run the IPA Link step
- CBCCL Compile, prelink, and link
- CBCCLG Compile, prelink, link, and run
- CBCG Run
- CBCL Prelink and link
- CBCLG Prelink, link, and run

If you are interested in using the C/C++ compilers or would like to know more about them, contact Bill Ramsay of the Computing Operations Bureau at 444-2902, ZIP! or E-Mail at bramsay@mt.gov. These compilers are new features and some additional tuning of the install options may be necessary in the future. Your input is welcome.

Tape Data Set Retention

Introduction

As 1998 approaches, it brings with it the possibility of confusion regarding the use of the CA-1 (TMS) EXPDT keywords in the JCL. To help alleviate some of that confusion, this article will revisit the rules on coding tape data set retention parameters.

To begin with, remember that the protection and retention of tape data sets is determined by the expiration date stored on the tape management catalog (TMC) for each data set. This expiration date is automatically filled in every time a data set is created on a tape volume.
There are several methods used by CA-1 to determine what type of expiration date is to be used for your data set. Here are the most common:

- In the LABEL parameter of the DD statement
- By the CA-1 default retention
- By the CA-1 default abend retention

**The Label Parameter**

This is where the confusion could exist. CA-1 uses the EXPDT date keywords which enable you to pass your retention request through normal JCL statements. The problem is that CA-1 used “future” dates as codes for certain types of retention. Now time has caught up with these dates and the user is left to wonder if they are specifying a calendar date or a CA-1 keyword.

Here is a list of common CA-1 date keywords used in the LABEL parameter:

- **LABEL=RETPD=0** Temporary data set. TMC expiration date set to current date.
- **LABEL=EXPDT=yyddd** Standard Julian expiration date. TMC expiration date set to yyddd.
- **LABEL=EXPDT=yyyy/ddd** Same as above.
- **LABEL=RETPD=dddd** Retain for dddd number of days. If the calculated number of days goes beyond Jan 1, 1998, it will remain a valid date and not become a keyword.
- **LABEL=EXPDT=90ddd** Retain for dddd number of days and then retain for as long as data set remains on system catalog.
- **LABEL=EXPDT=98000** Tape is external to the TMC. Expiration not affected.
- **LABEL=EXPDT=98ddd** Days since last used. Tape data set is held as long as it is used every ddd days. ddd is any integer up to and including 366.
- **LABEL=EXPDT=99000** Catalog control. Retain the data set for as long as it remains on the system catalog.

**LABEL=EXPDT=99cc** Cycle control. Specifies that ccc cycles of like named data sets are to be retained. As soon as the ccc + 1 data set is created, the oldest data set will be expired. This can be used for both generation and non-generation data sets.

**LABEL=EXPDT=99365** Permanent. Retain data set indefinitely.

**LABEL=EXPDT=99366** Same as 99365.

As you can see, if you were to try to set an expiration date for Jan 5, 1998, the LABEL statement would look the same as if you had specified that the data set should be expired when not used for 5 days (98005). That could really hurt on Jan 5 if you hadn’t used the data set in over 5 days!

There is a method to alleviate this problem. Insert a “//JULDATE DD DUMMY” statement in each step which creates a tape data set. This will tell CA-1 to interpret all EXPDT dates as Julian dates, not keywords. For example:

```
// JOB (ACCTING)
//STEP1 EXEC PGM=PROGRAM
//TAPE DD DSN=TAPE.DATASET,DISP=(NEW,KEEP),UNIT=CART;
// LABEL=EXPDT=98005
//JULDATE DD DUMMY
```

will accomplish what we set out to do, set the expiration date of TAPE.DATASET to Jan 5, 1998. Remember: the JULDATE DD must be inserted into each step which creates tape data sets and all EXPDT dates will be interpreted as Julian.

**Default Retention and Abend Retention**

These are not affected by the date keywords but are discussed here as a reminder. There is a system defined default expiration rule for any tape data set that is created without an expiration date or retention period. ISD has this value set at seven days for both defaults. Therefore, any data set that was created without an EXPDT specified will expire in seven days. Also, any data set that OPENed normally for output (DISP=NEW or DISP=MOD) and then CLOSEd by an abend will have the expiration date changed to seven days from the abend.
Year 2000

CA-1 has been updated to become year 2000 compliant. To specify an expiration date into the next century use the "LABEL=EXPDT=yyyy/ddd" format. Using the "LABEL=EXPDT=yyddd" will cause an ugly CA-1 AXX-08 abend.

Conclusion

To be sure that your data set is protected in a manner that meets your needs, become familiar with the keywords used by CA-1. Failure to do so could cause a really bad day! If you would like further explanation on this topic, contact either Diane Haun at 444-3336, ZIP! or E-Mail at dhaun@mt.gov or Bill Ramsay at 444-2902, ZIP! or E-Mail at bramsay@mt.gov.

ITMG Makes Changes

The Information Technology Managers Group (ITMG) will change their name and formalize their place in the IT community with the issuance of an Agency Order by Lois Menzies, Director of the Department of Administration. The new name will be Information Technology Managers Council (ITMC) to conform with the provisions creating advisory councils in state government. Agency heads are being asked to designate who will represent their agency on the Council.

The Information Technology Managers Council shall:

- Keep abreast of state information technology issues.
- Review information technology issues that affect state government.
- Review and provide feedback regarding the Department of Administration’s information management policies.
- Review and provide feedback regarding information technology activities to the Information Technology Advisory Council.
- Review opportunities and issues associated with the application of new information processing technology in government.

- Meet regularly to provide an opportunity for free exchange among information technology professionals on subjects of common interest and concern. Members, designees and interested persons are encouraged to share their individual points of view in an effort to identify options and methods which could be expanded and implemented throughout state government.
- Provide a forum for the maintenance of the state’s technical resources through continuing education, career development, sharing ideas and resources.
- Articulate agency needs that impact ISD or that require ISD services.

Pertinent information technology issues include but are not limited to the following:

- Information technology planning
- Integrated systems (hardware, software, and data)
- Statewide information technology standards
- Disaster and contingency planning
- Cost recovery philosophy and overhead
- Data center availability
- Enterprise network availability
- Training
- Service delivery by ISD

The ITMC will be governed by an Executive Board that will be made up of the current Chair, the past Chair, the Vice Chair, the Information Services Division Administrator and two elected ITMC members.

For more information on ITMC, contact Wendy Wheeler at 444-2856, ZIP!, or E-Mail at w wheeler@mt.gov.
ZIP!Tips

Internet E-Mail Review

Now that most state employees are sending more and more Internet E-Mail, it serves as a good time to review the whole process as well as some of the idiosyncracies.

Internet Aliases

There are still users who assume that their Internet Alias address is automatically the first letter of the first name combined with the last name followed by @MT.GOV. If you have a common last name, you shouldn't assume your Internet E-Mail Alias is as such.

The E-Mail Tracking System attempts to automatically assign a unique Internet E-Mail Alias. It proceeds in the order listed below until a unique (non-duplicate) alias is found.

1. First letter of the first name followed by the last name
2. First letter and second letter of the first name followed by the last name
3. First name followed by the first initial of the last name

Note: If all three attempts result in a duplicate alias, then a unique alias will be assigned manually. If in doubt, ZIP! a message to the ZIPIOffice Resource intray and verify your Internet Alias address.

Internet E-Mail for ZIP!Mail Users

ZIP!Mail users do not have the capability of sending a “Message” in Internet E-Mail; you need to select the ZIP!Mail “Note”. Also, ZIP!Mail users do not have the capability of attaching files to send across the Internet. To address an Internet message, type in the recipient’s Internet E-Mail address on the first line of the Note field preceded by “MHSTO:MHS:”

For example:

MHSTO:MHS:someone@somehost.com

Next, hit enter 2 times to begin your message. (There MUST be a blank line between the address and the body of the message.) Go to Recipients and select “Internet User” from the ZIP! Address Book, and send the mail.

Internet E-Mail for ZIP!Office Users

ZIP!Office users who have the Internet Client have the capability of keeping their own personal Internet Address book containing the E-Mail addresses of people you correspond with on the Internet. You don’t need to use the “MHS:MHSTO:” addressing information in the body of the message or select “Internet User” from the Address book. To access your Internet Address book, click on File, Open, Internet Address book. Fill in the recipient’s name (last name first is recommended so your Address Book will be in alphabetical order) and the Internet Address. (It is recommended you leave the Description field blank.)

To send mail to one of the names in your Internet Address book, compose a message and click on the “Address Book Icon”. When the Address book window is displayed click on the “Switch Address book” button in the lower right hand corner. This will display your Internet Address book. Select a recipient, click OK and then click on the Send Mail icon.

You can send attachments over the Internet only by using your Personal Internet Address book.

IMPORTANT: You must fill in the message field. Leaving it blank causes mail delivery errors. (ANY mail delivery errors should be reported to your E-Mail administrator.)

Internet E-Mail Errors

Probably the most common reason that mail does not go through involves a typographic error in the Internet Address itself. We have tools available that can determine if the Host name (the information that appears to the right hand side of the “@” sign) is valid or not. Other errors occur when users send attachments from ZIP!Office to the Internet. Our SMTP gateway sends attachments in MIME format (which is the standard mail transfer protocol). If the “Host” you are sending to does not use MIME, you will receive an error message.

Whatever the error is, it is extremely helpful for us to see the actual error message to determine what the problem may be. When you receive an Internet E-Mail error message, forward it to the ZIP!Office.
Resource intray explaining your problem.
If you have any questions on sending Internet E-Mail or any other ZIP!Office or ZIP!Mail question, contact Sue Skuletich of End-User Systems Support at 444-1392, ZIP! or E-Mail at sskuletich@mt.gov.

**When to Use E-Mail**

Should I use the telephone or electronic mail? I’ve asked myself that question once in a while and thought I’d share my thoughts with you. In considering whether to E-Mail, I will be taking into consideration Internet E-Mail as well as our intra-state correspondence tools such as TAO, ZIP!Office and ZIP!Mail.

Ask yourself if your topic is urgent. Do you have to have an answer right now? E-Mail can be very fast but it is not like having the person whose knowledge you seek pick up the phone after two rings. Your E-Mail might sit in someone’s intray for a day before they respond to it. Instant gratification is nice but do you really need to know everything immediately? The answer is no.

Are you contacting a person to obtain a short piece of information or will the exchange likely progress as you get more information from them? If the latter situation exists then E-Mail is probably not the best choice because most of us can talk faster than we can type. To the time spent typing the message add the time required again for the physical exchange over the network and time spent sitting in the intray. If you find yourself in a question-answer-question-answer round-robin it could take a couple days to get all the information you need. But maybe you’ve got time for that (see the preceding paragraph).

Will it be helpful to have a written record of the request/reply? Print out your correspondence or file it electronically and it is there to reference at a later date. If you think you are good at recalling a conversation, remember, Confucius the Chinese philosopher said “No memory is finer than pencil and paper” or in our case printer and paper.

E-Mail is an inexpensive way to communicate with others. While it costs money to build networks to provide E-Mail or phone service, you are not charged directly for sending E-Mail like you are for long distance phone calls. E-Mail is generally cheaper than phone because the network is used for a shorter duration.

Lastly, think about the interruption of the person you will be contacting. It does not take more than one ring of the telephone to disturb one’s concentration. If you take lots of phone calls and find yourself wondering where you were on a task once those conversations are finished, you know what I’m talking about. Plus, if you are interrupted during an important task do you really give people 100% of your attention or do you give them a quick answer so you can return to your work?

Before you pick up the phone, quickly ask yourself these questions. If E-Mail can be used to fulfill your correspondence needs with a person, use it.

If you have questions concerning this article please contact Candace Hastings of End User Systems Support at 444-2858, ZIP! or E-Mail at chastings@mt.gov.

**WordPerfect Reveal Codes Tips**

The Reveal Codes feature of WordPerfect for Windows not only lets you see the underlying structure of a document, it also gives you some very efficient ways to edit the document’s formatting. To turn on Reveal Codes, choose View, Reveal Codes, or press (Alt+F3). With the Reveal Codes window open, here are two great things you can do while you’re editing.

- If you want to delete a code from your document, simply use your mouse to click and drag it out of the Reveal Codes window. You can also click the code once in Reveal Codes, then press (Delete).

- If you see a code that you want to edit, such as a margin or font code, double-click that code in the Reveal Codes window. WPWin automatically opens the appropriate dialog box where you can make any changes you want. This is an easy way to edit styles, and it’s great for fine-tuning advanced codes.

When you’re finished working in Reveal Codes, you can turn it back off by choosing View, Reveal Codes again.

This article was reprinted from the April 1997 issue of *WordPerfect for Windows Magazine*. For more information concerning this article, contact Irvin Vavruska of End User Systems Support at 444-6870, ZIP!, or E-Mail at ivavruska@mt.gov. For questions
Corel Tips

Creating a Transparent GIF in Corel PHOTO-PAINT

In today’s environment many users find the need for incorporating graphics for use in HTML documents. When graphics are inserted into HTML documents, the paper or background color of the graphic occupies a color. Therefore, when you place a graphic you will generally get the following type of a result. To remove the background color, a technique that makes it transparent is used. The following steps will demonstrate the creation of a GIF image with a transparent background. In this example, we will use the APPLE.PCX file found in the PHOTOSAMPLES subfolder of the COREL folder on the hard drive CorelDRAW! is installed on.

1. Open the APPLE.PCX file into PHOTO-PAINT.
2. Convert the image to 256 colors. This color palette is a limitation of the .GIF file format. To do this, select Image\Convert To, 256 Colors (8-bit).
3. In the Convert To 256 Colors dialog box pops up, select optimized for the Palette Type, and None for the Dither Type.
4. Select the Eyedropper tool from the vertical button bar and place it over the white color in the image.
5. On the Status Bar in the lower-left corner of the screen, you will see an Index value. In this case, the value is 215. Note this number for future reference; it is used later in our exercise. This value will vary depending on the color you want to make transparent.
6. Click File\Save As, and change the Save As Type to CompuServe Bitmap (GIF). Type a name for the file and click Save.
7. In the Transparent Color box, select the Gif89a Format and click on the Transparent Color box. Enter the Index value in the Index box, and click OK.
8. Open or import the transparent .GIF file into a web browser or CorelDRAW.

Hiding a Background with Multiple Colors in a Transparent .GIF

If your image contains a background with complex colors that cannot be hidden by a single transparent color, you can mask the area of the bitmap you want to remain visible and create an object from that mask.

1. Mask the area of the bitmap you want to become an "object" on a web page. You can learn how to do this by practicing the masking exercises in the PHOTO-PAINT section of the User’s Manual.
2. Click on Object\Create From Mask.
3. Select the object with the Pick tool, then select Edit\Cut to place the object on the Clipboard.
4. Select File\Open to create a new 24-bit image with an empty background.
5. Select Edit\Paste\As New Object to place the new object into the new file with the blank background.
6. Click Object\Combine\All Objects With Background.
7. Create a transparent bitmap by following the instructions in the previous example.

For more information or questions, contact Jerry Kozak of End User Systems Support at 444-2907, ZIP! or E-Mail at jkozak@mt.gov.
PC Magazine has made available another Windows 95 free add-on named ZOOMIN. Following are excerpts from the ZOOMIN readme file.

ZOOMIN lets you use a hotkey to pop up a zoomed window. Since the keyboard and mouse remain fully functional, it is especially useful within paint programs. ZoomIn is application-independent, and lets you configure the hotkey as well as the zoom factor and the pixel width. It runs under Windows 95 and Windows NT 4.0 or higher.

When you run ZoomIn, it places its magnifying-glass icon in the system tray. To toggle the zoom window on and off, double-click the tray icon or press the ZoomIn hotkey. The hotkey is set to Ctrl+’ by default. You can change the hotkey if you'd prefer something else. The zoom window is a thinly outlined square containing a magnified copy of the area surrounding the mouse pointer. The small flashing square inside the window represents the location of mouse pointer. To zoom in on a specific area of the screen, simply move the mouse to that location. The ZoomIn window will follow your movements, typically staying at the lower right of the mouse pointer. If you move the mouse pointer to the extreme bottom or right side of the screen, the ZoomIn window will automatically move to the other side of the pointer to avoid moving off the edge of the screen.

What makes ZoomIn much more than a simple magnifier utility is that when the zoom window is displayed, you can still perform all of the usual mouse and keyboard functions. This is particularly useful in bitmap editors that require the use of the mouse.

ZOOMIN (VERSION 1.00) Copyright © 1997 Ziff-Davis Publishing Company


If you would like a copy of ZOOMIN the files are available on the ISD Value Added Server at \guest\windows\winaddon95addons\ZOOMIN. If you don't have access to the VAS contact Denny Knapp of End User Systems Support at 444-2072, ZIP! or E-Mail at dknapp@mt.gov.
Approach 3.0

How to Find a Character or Word in Multiple Fields

Important: The example and formula below does not return the correct results in Approach 3.0. This issue has been addressed in an updated version of Approach. This version is 3.02 and is typically what is used here within the State of Montana. To check to see if you have the correct version Open Approach, click on Help, then click on About Approach. This will tell you what version you have. Make sure it is 3.02. If you don't have this version see your LAN Administrator or see below for contact information about this article.

How can you find a character or string contained in more than one field of the records in a Approach database? The following will guide you through creating a test database to demonstrate this concept and solution. In order to search for a character or string over multiple fields, a Calculated field which uses the IF function can be created. The IF formula would be used to compare the search string and return a value when it finds the particular search string within any field in the database.

To create the formula to do this, use the following example,

1. Create a new database containing the following Text fields:
   FIELD1
   FIELD2
   FIELD3
   FIELD4
   FIELD5

2. Choose Create, Field Definition

3. Type in VAR as the field name, change the data type to Variable, then click OK.

4. Add the field to the form (if necessary).

5. Choose Create, Field Definition.

6. Type in UPVAR as the field name and change the field type to Calculated.

7. Type in the following formula, then click OK:
   Upper(VAR)

     NOTE: This formula changes the entry in VAR to uppercase. This allows for non case-sensitive searches.

8. Add the field to the form (if necessary).

9. Choose Create, Field Definition.

10. Type in FLAG as the field name and change the field type to Calculated.

11. Type in the following formula, then click OK:
   IF(Position(Upper(FIELD1),UPVAR,1)>0,1,0) +
   IF(Position(Upper(FIELD2),UPVAR,1)>0,1,0) +
   IF(Position(Upper(FIELD3),UPVAR,1)>0,1,0) +
   IF(Position(Upper(FIELD4),UPVAR,1)>0,1,0) +
   IF(Position(Upper(FIELD5),UPVAR,1)>0,1,0)

12. Switch to Browse mode.

13. Type the search string in the VAR field.


15. Type in >0 in the FLAG field, then click OK.

The Position function looks in FIELD1 for the string entered in VAR. If it finds the string, the formula returns the position of the character starting at position 1.

For example, if FIELD1 contained the string “abcd” (without the quotes) ABCD and “d” (without the quotes) is typed in VAR, the position of the character would equal 4. Since 4 is greater than 0, the IF statement would return a 1 as the value. Each of the IF statements in FLAG returns a value of 1 or 0. These values are then added together to determine the value of the FLAG field. The result of the FLAG field for a record would either be 0 or a number greater than 0. As a result, performing a Find operation using the criteria >0 will return the records that contain the search string in any of the 5 fields.

You can use this same technique on other data bases you have created or are about to create.

If you have any questions or need help with this issue, contact Mike Moller of End User Systems Support at 444-9505, ZIP! Or E-mail at mmoller@mt.gov.

Portions of this article were found on the Lotus Web Support page and are Copyrighted 1995 Lotus Development Corporation, an IBM Subsidiary. All rights reserved.
Make Your Web Page Easier to Locate

Most web surfers today use one or more of the Web search engines such as Yahoo, Infoseek, Alta Vista, etc. Some of the more advanced users even use meta search engines that run the searches in parallel on several search engines simultaneously. The problem with a search engine is that it is just a cataloger of data, at least with today’s technology. You could have a page with pictures of all the endangered birds in your area and unless you happen to have the word “bird” or “endangered” somewhere on the page, a search engine won’t find you on a search of “endangered birds”.

There is something that you can do to help this situation. You can add some “META” tags to your HTML that the search engine can use even if the words never appear on the page. Most, but not all, search engines will use these tags to more accurately index your page.

For example this HTML code could be included in the <HEAD> section of your code. If you are using frames, it must be in the main HTML file (the file containing the <FRAMESET> tags).

```html
<META NAME="description"
CONTENT="Photos of endangered birds of my Area">

<META NAME="keywords"
CONTENT="endangered, extinct, bird, three tailed swallow, blue cardinal, giant sparrow, conservation, wildlife, ornithology, hunting">
```

This would target your page for people doing searches on these particular birds, or related subjects. Choose your keywords carefully, think of all the different ways your information might be used. Including the hunting keyword in the above page might help make someone looking for bird hunting aware of the endangered species even if that is not exactly what they went looking for. Certainly they would never have seen your page without the META tags.

An unfortunate consequence of this is that some designers tend to use words that don’t relate to their page in any way, but are popular search terms such as “sex”. Please don’t do this. Another trick is to repeat a term several times because a search engine will give it more weight and move it higher in its list. This has been abused to the point where most engines will ignore multiple occurrences of a word.

The META tag for description provides the text that is used as a summary of your page in most search result listings. Keep it short but describe your page accurately. Consider putting a date in it if the information is date sensitive because it will be in the search database for a long time.

These simple changes will make your page easier to find both for Internet searches and in the future with intranet searches. More on that later.

If you have any questions or comments please feel free to contact Ron Armstrong of End User Systems Support at 444-2905, ZIP! or E-Mail at rarmstrong@mt.gov.
Upcoming Oracle Channel Broadcasts

The Oracle Channel Satellite education program is available to state agency staff through the ISD Network Connection Fee. These broadcasts are held from 9:45am to 2pm in the Department of Transportation Information Services Bureau conference room (basement).

To sign up for a class, send an E-Mail to Barbara Clark of ISD (ZIP! or baclark@mt.gov) at least two weeks in advance. Registrations after that date incur a $20 late fee which will be the agency's responsibility. Cancellations received within two weeks of the class date will result in the class fee being billed to the agency as well.

The Oracle Channel Class Schedule:

December
  2 SQL I Retrieve Data
  3 SQL II Define and Manipulate Data
  4 SQL Statement Tuning
  9 Oracle 7 Data and Security Management
  10 Oracle 7 Backup and Recovery Strategies
  11 Oracle 7 Performance Tuning Strategies
  16 Developer 2000 Fundamentals Updated to Release 2
  17 Introduction to Oracle Web Application Server
  18 Developer 2000 Deploy Web Based Applications

January
  6-7 Oracle 8 New Features
  8 PL/SQL 8 New Features
  13-14 Oracle 7 Architecture and Startup
  15 Using Oracle 7 Replication
  20 PL/SQL I: Coding Techniques
  21 PL/SQL II: Database Level Application Programming
  22 Developer 2000 Release 2 New Features
  27 Object Technology Essentials
  28 Introduction to Data Warehousing
  29 Data Warehouse Fundamentals for DBAs

February
  3 SQL I Retrieve Data
  4 SQL II Define and Manipulate Data
  5 SQL Statement Tuning
  10 Developer 2000 Fundamentals
  11 Developer 2000 Tuning Update to Release 2
  12 Discoverer 3 Analyze Your Data Requirements
  17 Oracle 7 Data and Security Management

18 Oracle 7 Backup and Recovery Strategies
19 Oracle 7 Performance Tuning
24 Designer 2000 Release 2 New Features *New!*
25-26 Oracle 8 New Features

Class descriptions are available on the Oracle education web site: http://education.oracle.com/education/toc/index.htm. Because class material has to be ordered you must register at least two weeks before the scheduled class date. Please contact Barbara Clark at 444-0846, ZIP! or E-Mail at baclark@mt.gov.

Training Calendar

This schedule has been assembled by the Helena College of Technology of the University of Montana. If you have any questions about enrollment, please call 444-6821. All classes will be held at the Helena College of Technology at 1115 N. Roberts. Please note that these costs are subject to change each July 1st. The Helena College of Technology makes reasonable accommodations for any disability that may interfere with a person's ability to participate in training. Persons needing an accommodation must notify the college no later than two weeks before the date of training to allow adequate time to make needed arrangements. To make your request known, call 444-6821.

To enroll in a class, you must send or deadhead an enrollment application to the

State Training Center, HCT
Helena, MT 59601

If you have questions about enrollment, please call 444-6821.

Once you enroll in a class, the full fee will be charged UNLESS you cancel at least three business days before the first day of class.

HCT is also willing to schedule specific classes by request from state agencies.

The Helena College of Technology makes reasonable accommodations for any disability that may interfere with a person's ability to participate in training. Persons needing an accommodation must notify the college no later than two weeks before the date of training to allow adequate time to make needed arrangements. To make your request known, call 444-6821.
### Data Base Classes

<table>
<thead>
<tr>
<th>Course</th>
<th>Date</th>
<th>Cost</th>
<th>Length</th>
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</thead>
<tbody>
<tr>
<td>Intro. to Oracle</td>
<td>November 3–5</td>
<td>170.00</td>
<td>2</td>
</tr>
<tr>
<td>Prereq. Intro to Windows</td>
<td>January 20–23 pm</td>
<td></td>
<td></td>
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<tr>
<td>Intro. to SQL</td>
<td>November 12–13</td>
<td>170.00</td>
<td>2</td>
</tr>
<tr>
<td>Prereq. Intro to Oracle</td>
<td>January 26–29 pm</td>
<td></td>
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</tr>
<tr>
<td>Oracle Developer 2000, part I</td>
<td>November 17–19</td>
<td>0.00</td>
<td>3</td>
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<tr>
<td>Prereq. Intro to Oracle &amp; SQL</td>
<td>Next class–February</td>
<td></td>
<td></td>
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<tr>
<td>PL/SQL</td>
<td>December 4–5</td>
<td>170.00</td>
<td>2</td>
</tr>
<tr>
<td>Prereq. Intro to Oracle &amp; SQL</td>
<td>Next class–February</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oracle Developer 2000, part II</td>
<td>December 8–10</td>
<td>0.00</td>
<td>3</td>
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<tr>
<td>Oracle Designer</td>
<td>November 10–21 am</td>
<td>0.00</td>
<td>5</td>
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<tr>
<td>Prereq. Oracle Dev. I; PL/SQL recommended</td>
<td>Next class–Feb. or Mar.</td>
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*NEW*

<table>
<thead>
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<th>Course</th>
<th>Date</th>
<th>Cost</th>
<th>Length</th>
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</thead>
<tbody>
<tr>
<td>Generating Applications with Designer 2000</td>
<td>January 13–15, 20–22 am</td>
<td>255.00</td>
<td>3</td>
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<tr>
<td>Prereq. Oracle Designer 2000</td>
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<tr>
<td>Lotus Approach</td>
<td>November 10</td>
<td>85.00</td>
<td>1</td>
</tr>
<tr>
<td>Prereq Intro to Windows</td>
<td>December 11</td>
<td></td>
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<tr>
<td>Inter. Lotus Approach</td>
<td>November 21</td>
<td>85.00</td>
<td>1</td>
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<tr>
<td>Prereq. Lotus Approach</td>
<td>December 16</td>
<td></td>
<td></td>
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</table>

### Data Network/Mainframe Classes

<table>
<thead>
<tr>
<th>Course</th>
<th>Date</th>
<th>Cost</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unix</td>
<td>To be announced–January</td>
<td></td>
<td>3 or 4</td>
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</table>

### Microcomputer Classes

<table>
<thead>
<tr>
<th>Course</th>
<th>Date</th>
<th>Cost</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Windows 3.1</td>
<td>December 1</td>
<td>85.00</td>
<td>1</td>
</tr>
<tr>
<td>Windows 95 Conv.</td>
<td>December 3 am</td>
<td>42.50</td>
<td>.5</td>
</tr>
<tr>
<td>Prereq. familiar with Windows</td>
<td>January 16 am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows 95</td>
<td>November 4</td>
<td>85.00</td>
<td>1</td>
</tr>
<tr>
<td>Intro. to Internet</td>
<td>November 14 am</td>
<td>42.50</td>
<td>.5</td>
</tr>
<tr>
<td>Prereq. Intro to Windows 3.1 or 95</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td>December 17–18</td>
<td>170.00</td>
<td>2</td>
</tr>
<tr>
<td>Prereq. Intro to Windows 3.1 or 95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTML</td>
<td>November 24–25</td>
<td>170.00</td>
<td>2</td>
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<tr>
<td>Prereq. Intro to Windows &amp; familiar with Internet</td>
<td></td>
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<tr>
<td>WordPerfect 6.1 for Windows</td>
<td>November 6–7</td>
<td>170.00</td>
<td>2</td>
</tr>
<tr>
<td>Prereq. Intro to Windows 3.1 or 95</td>
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<tr>
<td>WordPerfect 6.1 Conv. Windows</td>
<td>December 9</td>
<td>85.00</td>
<td>1</td>
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<tr>
<td>Prereq. Intro to Windows 3.1 or 95</td>
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</tr>
<tr>
<td>Lotus Conv. To Windows</td>
<td>December 10</td>
<td>85.00</td>
<td>1</td>
</tr>
<tr>
<td>Prereq. Intro to Windows 3.1 or 95</td>
<td></td>
<td></td>
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</tbody>
</table>

Prerequisites may be met with consent of Instructor.

**The Oracle Designer and Developer class fees are recovered through the monthly data network rate.**
ISD Class Enrollment Application

COMPLETE THIS APPLICATION IN FULL AND RETURN IT AT LEAST ONE WEEK PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Request: ____________________________________________
Date Offered: ____________________________________________

STUDENT DATA

Name: ____________________________________________________
Soc. Sec. Number (for P/P/P): ________________________________
Agency & Division: _______________________________________
Mailing Address: _________________________________________
Phone: __________________________________________________

How have you met the required prerequisites for this course? Explain, giving the class(s) taken, tutorial completed, and/or experience.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

BILLING INFORMATION/AUTHORIZATION MANDATORY

User ID: ________ Agency#: ________
Authorized Signature: ____________________________________________

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE THE START DATE OF THE CLASS.

DEADHEAD COMPLETED FORM TO:
COMPUTER TRAINING CENTER
HELENA COLLEGE OF TECHNOLOGY
OF THE UNIVERSITY OF MONTANA
PHONE 444-6800 FAX 444-6892
Editor's Notes

Published By...

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Editor

Trapper Badovinac (444-4917), ZIP! or E-Mail at tbadovinac@mt.gov.

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