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OUR GOAL IS TO PROVIDE HIGH QUALITY INFORMATION SERVICES IN A PROFESSIONAL MANNER THROUGH A RESPONSIVE PARTNERSHIP WITH OUR CUSTOMERS

Public Access and "The Web" (Part 2)

BY DICK HINKLEY

'The best way to predict the future is to invent it."

Nicholas Negroponte

In the December 1994 newsletter I wrote for the first time about the World Wide Web and its implementation here at the State. As most of you likely know, the Web has grown worldwide at astonishing rates, currently doubling the number of home pages every seven weeks. And the growth in Maine is no less astound-

Yesterday and Today - When we launched the initial home page for the State of Maine in November 1994 it was mostly empty on that first day; today there are several dozen agency linked home pages included, many with extensive features and information. The Web browser most commonly used was MOSAIC; today the continued on page 2

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MFASIS DATA WAREHOUSES

BY IM KING

In September the MFASIS technical support team initiated the Financial Information Warehouse (FIW) project, which is our second information/data warehouse project. Before elaborating on this, I want to describe our first warehouse effort, as the two projects are related

The first warehouse was the MFASIS Human Resources (HR) Information Warehouse, which went into production at the beginning of 1995. The HR Warehouse now serves about 50 customers representing most agencies in State government. It is being used to do ad hoc analysis and to produce management reports using data on agency employees, positions, and payroll. The administrative staff in these agencies are now able to do iterative analysis on their data until they have just the information their management is seeking.

The access to their data is made possible through the use of an SQLbased reporting tool named GQL (Graphical Query Language), which presents a visual model of the HR Warehouse on the user's PC. This model, and the data within, are described in terms familiar to the agency (non-IS) staff who work on budgeting, financial, or human resources-related functions.

This is a true client-server application in that GQL, which runs in the Windows environment, attends to the presentation-related, data qualification, and report definition functions.

while a network server in DDP does all the heavy data searching. GQL generates the database-retrieval SQL code, which is then delivered, over the WAN, to the server. The server's processors do all the work in locating, sorting, and summarizing the specific data required from the Oracle HR Warehouse database, and then send the results back to the client PC. The user can then review the data. fine-tune the qualifications, fire off another query, and arrange it into a customized report, or paste it into a spreadsheet or other PC application.

The HR Warehouse has been well received, as evidenced by the follow-

ing user comments:

"It has been a great time saver for my agency."

"Questions can be addressed in a timely manner and in a user-friendly

"Existing data can be quickly manipulated . . . and then used to make sound business decisions."

"With the warehouse, our imaginations may be our only limit."

"This resource has saved the State countless hours of research "

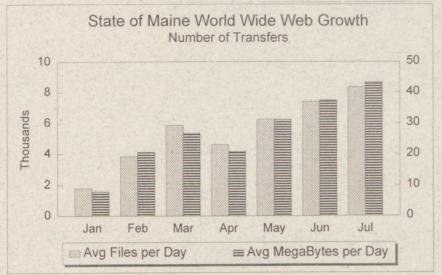
"In 13 years of HR work, I have never been so excited as I am about the HR Warehouse."

With the Financial Warehouse project we expect to follow a similar development approach and deliver a similar technical solution. This warehouse will address the large quanticontinued on page 3

Public access, continued

browser of choice is NETSCAPE. Only about a half dozen states had WWW home pages; today all but a dozen states are represented, not to mention a considerable federal and city government presence. No one could conduct reasonable searches for information by keyword; today there are several State examples of keyword searches driven by WAIS en-

tions about vacation plans, relocation to Maine, research requests, weather, hearing schedules, and where to get help on licensing, legislation and more. We've received numerous compliments and the home page has grown so much that we've also received advice to condense it for easier access. In short, there is active and intense use of the pages made available by State agencies -



gines, including a telephone directory and a notary public database. A WWW search using the keyword "Maine" could yield 6-10 sites in Maine: today that same search can yield nearly 200. And the Web can now also provide live links to Usenet groups and other Internet based features, including sound and video. The Governor himself led the press conference last winter when Tourism's home page was announced. Since the first of the year, the overall growth (pictured above without the first two startup months when we lacked reliable tracking data) in access to the State's home page has averaged 35-42% per month typically. That's rapid growth by any measure.

Public Access - The Web's promise for being a premier public access mechanism is proving true. Not only do many citizens of Maine and beyond access the State's home page, we have discovered that they expect to find one and they depend on it. Visitors to the home page have communicated to the Webmaster ques-

and electronic visitors want more.

Unmet Needs - lust as mentioned nearly a year ago, there are imperfections - centered around access issues - some of which limit the full use of the WWW until they are resolved. Inexpensive access for all citizens is an issue and will be for some time to come. Fortunately there are a number of initiatives underway now which will improve this situation substantially, first for schools and libraries and ultimately for homes. High speed access is the second of the access issues. Effective use of the WWW demands higher speed access which, today, typically only businesses and universities have. Availability of this type of access will also improve, but it can't happen fast enough. Secure access is the last major issue and is the one most nearly satisfied. Having secure access allows commercial use of the WWW, including the transfer of credit card numbers, something which holds out promise for the State to handle some transactions in a new and more convenient way for citizens. Fortunately, the latest version of Netscape has built-in security features; unfortunately, in mid-September, headlines were made as Netscape's security process was broken, requiring Netscape to repair the security design. Despite this public setback for Netscape, the industry expects this to be a very short term problem and that we'll all be able to rely securely on the WWW for commercial use.

Tomorrow - In the next year I predict that more agencies will make information available off the State's home page. Such offerings will grow in sophistication and power (e.g., WAIS databases), providing citizens access to information in a faster, ever more convenient way. As more agencies join the effort, we expect to redesign the home page repeatedly in order to structure the visitor's access in a way that is convenient and intuitive. And, in the longer term, I expect to see some transactional capabilities offered to citizens who would prefer to conduct their business with the State at their convenience from their home, business or other computer. The latter capability may even require changes to law, but it seems likely to happen - especially when the citizens of Maine want it.

As our first year with the State's home page concludes, we've witnessed the beginning of a new way of doing business. It will continue to grow and evolve in ways I think none of us can entirely predict as the technology and infrastructure improve. Certainly, offering information and services electronically to citizens will take on a life of its own over the years, limited only by our collective creativity and the public service infrastructure we construct to support it. It remains one of the most exciting prospects in government services I've witnessed. If you have yet to see what the WWW can do (and can't do), I encourage you to see us for a demonstration. I am certain it will stimulate some thinking on all our parts about how we can improve and augment services to our fellow citizens.

To be continued.....

MFASIS, continued

ties of data which are available in the MFASIS Accounting and Budget Systems. These systems were designed to meet the State's daily operational needs and are not in a position to meet the very different needs of online analytical processing. Just as with the first project, a data model will be created which mirrors the way the State's financial and program managers view the information. A user committee has been formed to work with us in defining their informational analysis requirements. This committee is composed of a cross-section of State government with representatives from the following agencies: Dept. of Admin & Fin, Dept. of Agriculture, Dept of Corrections, Dept. of Conservation, Dept. of Education, Dept. of Labor, Dept. of Human Services, Dept. of Marine Resources, Dept. of Prof. & Fin. Regulations, Dept. of Transportation, Office of the Courts, Bur. of Budget, and the Bur. of Accounts & Control.

This group has has already identified some initial requirements for the Financial Warehouse:

- · Easy access to most-needed financial data
- Flexibility to aggregate financial data for different levels of management - commissioner, bureau director, program mangers
- Ability to do historical analysis on financial data
- Integrate accounting, budgetary, human resources information
- Budget to actual reporting at all levels - program, department, bureau
- YTD summaries should be current, not just as of the last monthly closing period
- Reporting capability for different time spans - not just fiscal year
- Analysis of expenditures and revenues at cost centers within a program

Over the next few months we will work closely with this committee to finalize the requirements, define a data model, validate the data to be loaded and its source, evaluate GQL

as a reporting tool, and finally build and acceptance test the Financial Warehouse. The Financial Warehouse will be operational in June, 1996.

The committee and project team members are very enthusiastic about working on this project which is greatly desired by many agencies. The MFASIS Financial Warehouse will provide agency managers and financial staff with an important tool to analyze the administrative and financial information used in managing the State's business.

ISPB REPORT

BY MARY CLOUTIER

At its September 14 meeting the Information Services Policy Board (ISPB) accepted a draft Internet Policy and Usage guide from a subcommittee composed of Danny Morris (IF&W), Tom Eldridge and David Pearson (DHS), and Ron Dolan and Mike Blake (DEP). The Board is scheduled to have its second reading of the draft policy at its October meeting, and copies have been e-mailed throughout State government for comment. If you did not receive a copy, please contact ISPB staff Mary N. Cloutier at 287-6434. The draft policy includes the following Statement of Principles.

E-Mail systems, Internet and World Wide Web Browses, bulletin board systems, etc. are intended to be used primarily for business purposes. Any personal use must be of an incidental nature, and not interfere with business activities, must not involve solicitation, must not be associated with any forprofit outside business activity, and must not potentially embarrass the State of Maine, its residents, its taxpayers, or its employees.

Because E-mail is being generated for state business on state owned property, the user should not have the expectation that their E-Mail files are private. These files are subject to archival policies and any scrutiny normally afforded to paper files and documents covering the same subject matter.

FINANCIAL FOCUS GROUPS

BY CAROL F. WHITNEY
STATE CONTROLLER

Over the past few months, the Bureau of Accounts & Control has sponsored three focus groups. Agency finance managers and Commissioner designees were invited to attend. Subjects discussed included MFASIS, automation of forms, financial warehouse ideas, performance budgeting, appropriations and allotments, travel policy, and automation, to name a few. People from each group volunteered to be on "Work Teams." Four teams were created, which will deal with the following subjects:

1) <u>Electronic Commerce</u> - This includes bar coding, electronic funds transfer (EFT), electronic data interface (EDI), electronic benefits transfer (EBT), E-Forms (electronic forms), electronic signatures and much more.

2) <u>Performance Budgeting</u> - This is budgeting by measurable outcomes.

- 3) <u>Financial Warehouse</u> This is the umbrella for the Human Resource, Accounting, and Budget warehouses. Ad hoc management reports produced in minutes and cash reports that are reconciled and downloaded in department PCs at the end of the month rather than the 15th, are just two of the advantages of the Financial Warehouse.
- 4) <u>Miscellaneous Issues</u> These include travel policy changes, promoting other fiscal changes, loading procedures on-line, and always being ready to take on any concerns that surface.

If there are any ad hoc committees or department TQM PAT teams working on any of the same issues, please contact **Debbie Jenney** at 626-8420 (or via e-mail) and let her know what your team is working on so that we can partner up our resources.

A special thanks to Mary Cloutier of BIS and Debbie Jenney of BAC for facilitating the Focus Groups.

CONFERENCE KUDOS

BY GLENDA WINN

This excerpt from one of the Evaluations sums it up nicely:

"Have really enjoyed being an exhibitor at this conference. The networking with other exhibitors and participants and the general public has been extremely valuable. Thank You for the free booths for government - also for keeping your Conference prices reasonable. *Please* more invites/marketing to government and public – and keep it up for next year – it will grow via word of mouth if it continues. Also more students – the ones with the scavenger hunt were fun. Smooth technical set up – great



At the other end of the spectrum, Tim Case (BIS) shows off some of GIS's advanced technology.

Thanks To ...

planning."

The Bureau of Information Services continues to receive very positive and enthusiastic comments on a well-run Conference. Our success was made possible by the contributions of time and expertise from the following individuals: Mary Cloutier for her help with organizing the state agency exhibits; Carmen Fournier, Beverly Wrigley, Barbara Buck, Deb Everett, and Brenda McCamish for all their help with organizing the registration, assembling and distributing conference information in a variety of ways, and expertly handling a gazillion other details; Karen Knox for the design of Conference promotional materials, assembling the information for printing, and keeping the home page up to date as well as helping out at the registration desk; Flint Bachelder, Tom Mahar, Bob

Corum, and Duncan Bond for wiring the Civic Center so that live demonstrations were possible not only in the Exhibit Hall but also in the sessions, and seeing that everything worked as planned: Donny Crockett, Joe Andres, and leff Cotnoir who provided much

needed assistance to all the exhibitors to setup and dismantle their displays, as well as providing A/V equipment for the sessions; Joanne

Maddox (Purchases) for coordinating our work with the commercial printer; Kevin Riley and Steve Killiam (MDOT) for providing us with signs for the agency booths; and Donna Allen (Purchases) for handling our in-house printing needs.

Others who contributed time and effort to assemble speakers and panelists included: An-

thony Citrano for providing us with a wonderful keynote speaker; Carol Whitney, Dave Ellis, Mary Cloutier, Jim King, and Bruce Carver who organized sessions regarding Electronic Commerce and the MFASIS Information Warehouse; Dan Walters



The "Workstation of the Past" at DDP's Tech Conference brings a grin to Karen Kidder (BIS).

and Nancy Allen who orchestrated the sessions on GIS.

Non-State employees played a large role this year in providing speakers, including Henry Bourgeois (Maine Development Foundation), Paul Schroeder (Maine Library Association), Jay Johnson (CAPS/UMO) and Mary Lou Dyer. As a result, we can see that our relationships with these organizations has been strengthened.

The Staff of the Augusta Civic Center should also be recognized for their patience, adaptibility, friendliness, and the great lunches, as we literally took over the Civic Center!

Many many thanks to everyone mentioned and apologies to anyone who may have been left out — The compliments we've received are evidence that we have professional and customer-oriented people who work well together, with enthusiasm and commitment.



Jim Lopatosky (BIS) makes a last minute check on his PowerPoint presentation at the Oracle Users Group booth, home of the famous Moose Hug (MSOUG).

SECURITY BEAT

BY BOB WITHAM

ISPB Antivirus Policy in the Works

The ISPB (Information Services Policy Board) has authorized a subcommittee to make recommendations for a statewide antivirus policy. Patrick Grotton of Retirement, Phill Patzer of Public Safety, and I are on the committee. We have begun outlining our objectives, and will be presenting an outline of action to the ISPB at their October meeting.

The ISPB has given us a fairly nebulous charter to begin with, and we are basically self-determinant in our objectives. We are leaning toward specifying a base level of protection for personal computers and networks. This specification will likely include things such as authorized anti-virus detectors/disinfectors. For example, we may specify that virus detectors must be capable of detecting and cleaning 95% of known "in the wild" viruses.

We have a long way to go before we have a good anti-virus policy that we can all stand behind. I think we would all agree however, that the State needs an overall antivirus policy. The committee welcomes your suggestions. You can send them to me via e-mail at ccrwith@state.me.us, or to Witham Jr., Robert L. if you have MSMail or cc:Mail on the WAN.

New McAfee Contract

I was able to negotiate a new contract with McAfee Associates for antivirus software. This new contract will provide considerable savings over our old contract, plus we are also including McAfee's NLM (Network Loadable Module) product NETSHIELD. NETSHIELD is a virus

"Computers are useless. They can only give you answers.

- Pablo Picasso

detector/disinfector for Novell Networks. Additionally, we will be able to get the new WIN95 version of McAfee without needing to update our contract.

BIS/DDP provides McAfee to other state agencies at no cost. Our current license only covers us for 2000 PCs, so we ask people to keep track of the number of units they install. NETSHIELD may be installed on as many servers as necessary to support your 2000 PCs. If you have 1 server for your 2000 units, then that is the limit. Similarly though, you could have only 20 PCs connected to 500 servers and use up only 20 of your 2000 license.

If you do not already use McAfee Antivirus, or if you would like a copy of NETSHIELD, please let me know.

Viruses Still Afoot

In case you thought the virus plague was over, think again. I am still averaging 4 to 5 calls a month on virus infections. Most people seem a little embarrassed the first time they call. Don't be. There is a saying in the industry that "the question is not if you will be hit by a virus, but when." Your only protection against viruses is early detection. You must find the virus before it has a chance to do substantial damage to your systems.

Some points to consider if you are using or considering purchasing an antivirus product are:

- 1. Make sure the AV (AntiVirus) product can detect at least 90% or more of "in the wild viruses". There are several magazines that rate antivirus products, and most PC related magazines will have an article each month on antivirus products.
- 2. Make sure that your AV product is updated at least quarterly. Monthly updates are better. Viruses are being developed at an alarming rate, and an AV product more than 3 months old will likely miss 10%-15% of them. That's a little better than Russian Roulette, but not much.

- 3. Make sure you scan any foreign diskettes before using them in your machine. Also, scan any files you may have downloaded from WWW, BBS or other Internet sources. While most sources are careful about viruses, they sometimes slip through.
- 4. Make sure you scan your hard drive daily. Although it seems redundant to scan the hard drive after scanning any new files and diskettes, it is guaranteed that the one time you forgot to scan a file was the one file that was infected. Oh yeah, you will forget some.

Prudent and vigilant care will stop virus infections from doing any extensive damage to your computer systems. If you can limit the damage to a diskette or two, you will have beaten the virus

"Asking if a computer can think is like asking if a submarine can swim...

- Edsger Djikstra

BIS BLASTS WASTE

The State of Maine, and specifically the Bureau of Information Services, were recently commended in the BLAST Software newsletter for waste reduction in Medicaid processing. The installation of an electronic claims filing service reduced human resource costs and material waste. In just the first year of operation the State realized a 200% return on its investment in this award-winning data processing application.

(3 E)

THE DBA'S DESKTOP

A Forum for Database-Related Discussions

BY JIM LOPATOSKY

The September meeting of the Maine State Oracle Users Group was held at the Holiday Inn on the eleventh of the month. Gary Lewis, author of the book ORACLE Reporting, talked about his views on ad hoc reporting, and how SQL Objects can be used to enhance reporting friend-liness. If you would like more information, you can e-mail him at GLEWIS@bentley.edu. I also gave a presentation at the meeting, discussing how to configure an Oracle7 database.

We had been using this newsletter as our primary notification media; however, due to the distribution date of the newsletter, many people were not notified in time. Please accept our apologies. To ensure this does not happen again, we will notify our members directly and use the newsletter as an secondary resource only. We will also try to get out meeting dates well in advance. To prove our point, we've already arranged the next two meetings: Tuesday, December 5th, and Wednesday, March 20. Both will be at the Holiday Inn in Augusta. Write these dates down.

MSOUG also participated in the Government Technology Conference. Thanks to all who stopped by. Hopefully, we've given people a better understanding of what we're all about.

Question and Answer – Oracle Passwords

Question:

Once I define users in Oracle, can they change their own passwords, or must they constantly have me (the DBA) change the password.

Answer:

Once you define a user in Oracle, they have the inherent ability to change their own password. They accomplish this by issuing the following SQL command:

ALTER USER userid IDENTIFIED BY new-password;

For example, if the userid is SCOTT, and the new password is TIGER, then the resulting SQL statement would be:

ALTER USER SCOTT IDENTIFIED BY TIGER;

It is important to note that this scenario only works when users are created using the IDENTIFIED BY option, not using IDENTIFIED EXTERNALLY. The latter verifies access to Oracle with the operating system, and many other considerations come in to play. In a client-server system, the best solution is to use the IDENTIFIED BY option. The client software should have a feature which allows users to modify their passwords, should they desire.

COMPUTER CORNER

BY DOROTHEA SOCEA

Run a disk defragmentation utility such as Norton Utilities SPEEDISK at least once a month. Depending on the size of your hard drive and the extent of fragmentation on your drive, plan for a half hour to one hour for the defrag to complete. You will not be able to use your computer while the defrag is running, so pick a time when you don't need to be on your computer. Or you might want to start a defrag a few minutes before going to lunch.

· While you're housekeeping, it's a good idea to run SCANDISK periodically, too, to check for corrupted and bad sectors. If you are using a DOS version earlier than 6.1, use CHKDSK instead.

Odd computer errors at times? Had to reboot with ALT+CTRL+DELete but the odd behavior persists? Sometimes a cold boot (power off, wait a few moments, power back on) is the only way to thoroughly reset your computer. The reason: memory does not always reset properly with a warm boot.

Got a computer question or tip? Send it to Newsletter, Station 61, Augusta ME 04333 if you would like to share it with other readers of this newsletter. We'll even publish your name as the contributor if you wish! Of course you can always contact our Help Desk (287-4800) for immediate assistance with any computer problem!

ELECTRONIC FUNDS TRANSFER

BY CAROL F. WHITNEY,
STATE CONTROLLER

Electronic Funds Transfer (EFT) is an application of Electronic Commerce (EC). American Management Systems, the software vendor for accounting, has installed this functionality. Similar to a wire transfer, EFT is paperless. Payments will go directly to the vendor's/customer's bank of choice. This means that checks will no longer have to be paid in physical form.

There is promotional work that needs to be planned and implemented, and procedures will have to be written for all contingencies. Fortunately, other states with experience will be able to advise us. Each vendor/customer will have to sign an agreement and return it to us with a canceled check in order to be set up on EFT. We expect this function to be ready the first of the year.

The Electronic Commerce Work Team will be assigned the non-automation tasks. Any ad hoc committees and PATs working on accounts payable should meet with this team to share your thoughts. Please call **Debbie Jenney** and let her know your status. You can reach her by e-mail or at 626-8420.

Another MFASIS accounting project which we will begin in 1996 is the introduction of Graphical User Interface (GUI - pronounced gooey). This will create a more easily used environment for MFASIS screens and a familiar Windows-style look.

Congratulations to our MFASIS team for setting such ambitious goals!



PUZZLE/TRIVIA CHALLENGE

October challenge: You have nine marbles; eight weigh the same and one is slightly heavier. Using a balance scale only twice, find which marble is the heaviest one.

Mail your answer with your name, phone number, and the organization for which you work, via OfficeVision to CCNEWS, or, if you prefer, call **Barbara Buck** at **287-3631**. The winner will be drawn from all the correct entries and will receive a **FREE** pizza from **Pat's Pizza**. All answers must be in no later than the **20th** of the month.

Last month's Trivia Challenge concerning the man and his problems getting the duck, fox, and corn all across the river brought six correct responses. A GIS Team effort wins the free pizza from Pat's Pizza. The duck was tied with a rope to the back of the boat. The duck then swam behind the boat, as the man took over the corn and the fox, one at a time.

There were several creative answers, which we decided to count as correct. Monica Godfrey of Corrections wrote: "The man let's the duck eat the corn and the fox eat the duck then he takes the fox in his boat across the river!!" James I. MacFarland of DOT wrote in part: "1) Walk down or up the river until they find a bridge and cross over it or 2) Make the duck and the fox swim alongside the boat and carry the corn in the boat with him."

From Jack Heneck of DDP we received the following, politically incorrect (to some) answer: "my answer - put the corn in the boat. take a rope and tie it around the neck of the duck and tie the rope to the front

of the boat. get ya another length of rope and tie it around the neck of the fox and secure that rope to the rear. hopefully the fox won't drown but if he does you can sell his coat to a furrier. Happy paddling."

What a creative bunch of readers we have! Congratulations to all those answered correctly!

ERGONOMICS PAT FINISHES WORK

After a duration of three months, the Ergonomics PAT, charted by the State Quality Management Council, completed its work and submitted its recommendations, on time and within budget, reported **Rick Howe** (BIS). He said that the group functioned very well together, enjoying an attendance rate of 90% and a feeling of full participation and full cooperation among all participants.

The PAT's recommendations have been endorsed by the State Council. It is hoped that implementation will reduce workers' compensation costs associated with Cumulative Trauma Disorders by about one third, approximately \$130,000 per year.

The mission of the PAT was to "recommend an implementation strategy to enhance the health and safety of employees using VDT's. The rec-

ommendations will provide guidance to departments and agencies on purchasing and installing equipment and training and scheduling employees to minimize the hazards associated with VDT work and maximize productivity." The PAT found that Cumulative Trauma Disorder (CTD), commonly associated with computer use, accounted for 37% of the \$1,216,114 in new workers' compensations claims.

The team's recommendations included the systematic purchase of good quality, durable office furniture that is adjustable to the individual worker. "Many departments attempt to save money by buying poor quality office furniture," said the report, adding, "this is a false economy."

The recommendations also stressed a program of employee training, noting especially that "supervisors should be trained to recognize the early symptoms of cumulative trauma disorders," and that CTD symptoms should be reported early. The PAT offered an implementation plan for installing and maintaining CTD recognition and prevention as an ongoing program.

No details are available at this time regarding the proposed implementation of the recommendations of the Ergonomics Process Action Team.



Bruce Laplante, Home Brewer BY JANEY BARTON

Yes, Bruce Laplante likes his own homemade brew keeps me interested." the best of all. He says that there is nothing like it, and

he brews ales, both pale and amber, as well as Irish stouts. The four basic ingredients are malt, hops, yeast and water. According to Bruce, it generally takes one week to ferment and one week to age, before being drinkable. Many brews taste better after a few weeks of aging, though. Because of this hobby, Bruce would love to go on a tour of Europe, specifically England, Ireland, Germany, and Italy, and visit brew pubs.

Bruce was born in Lewiston, and graduated from high school there. He then went on to the University of Maine at Farmington, where he graduated with a Bachelor of Arts in mathematics with a concentra-

tion in computer science. His minor was art. While in high school and college, Bruce had several parttime and summer jobs. He bagged groceries at Shaw's, painted schools for the City of Lewiston, worked on the cleaning crews at Bath Iron Works, cashiered at Marden's, and tutored calculus students.

Bruce has worked for two years now as a computer programmer for DDP. He has done work on NECSES. for Education, and, also, for Fish and Wildlife. This work involved updating CICS screens, as well as doing batch reports in COBOL and Easytrieve Plus. The bulk of his work is on DEP's Oracle database, MDMS (Multimedia Database Management System). "Getting an assignment, struggling with it, and then solving it..." says Bruce, "It's that challenge that

Bruce and his wife, Karen, live in Augusta and are

the proud parents of Holden Noel. a seventeen-month-old little boy. Karen works part-time and is a student in UMA's nursing program. He said that he took one look at Karen and said to himself. "That's the girl I'm going to marry." He said it was either "love or lust at first sight!"

Bruce is a sports participant and fan, too. He plays on the BIS softball team and is a fan of the New England Patriots and the San Francisco 49ers. Favorite books include Stephen King's Salem's Lot and J. D. Salinger's The Catcher in the Rye.

One true love is art. Bruce was accepted by the Portland School of Art, but decided to go to UMF instead. He has worked in sev-

eral media: pencil, pen and ink, charcoal, acrylic paints, and oil pastels. He is into realism in his art.

Favorite foods and restaurants: lasagna, The Olive Garden, Margarita's, and The Great Lost Bear (Forest Avenue in Portland). A fun evening would be "getting together with some friends at a brew pub for dinner and then going to a bar with live entertainment."

Travels: He was in New York City's Times Square on New Year's Eve one year!

He recently purchased a new computer and has become a self-proclaimed "Doom fiend." He has completed all levels and has played with the Doom editor, creating new games for his friends. This is all to his wife's dismay . . .

"How far you go in life depends on your being tender with the young, compassionate with the aged, sympathetic with the striving, and tolerant of the weak and strong. Because someday in your life you will have been all of these.

— George Washington Carver

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