

# DHCP in Pakistan

*by Ed Bader and Wally Fort*

In April of 1995, we installed the Freedom of Information Act (FOIA) DHCP clinical laboratory software at the German Heart Institute, Berlin Germany. In the fall of 1995, the chief of Management Information Systems (MIS) and the hospital director of Shaukat Khanum Memorial Cancer Hospital and Research Centre (SKMCH) visited Berlin to see DHCP in action. They were impressed with its functionality and decided to use DHCP at their medical center. After obtaining DHCP through FOIA, SKMCH management requested humanitarian assistance to implement DHCP with special emphasis on the DHCP laboratory module. Since we had previous experience in Germany, our names were mentioned in their request. The VA Office of Regional Counsel saw no legal problems for the trip, and the Office of the Chief Information Officer granted approval in mid-February 1996. It took about two months via fax, Internet, and phone conversations with the Lexington, Kentucky office of SKMCH to set the stage for our visit, but all was in order by mid-April 1996.

It might be helpful to provide some historical information before talking about our experiences. Pakistan, a country of 120 million people, generates over 200,000 new cases of cancer annually. SKMCH is the only comprehensive cancer treatment facility in the country. It is a non-profit organization dedicated to the free treatment of poor patients. The hospital is still under construction, but has an excellent cancer treatment program. The most sophisticated equipment, staffed by highly qualified professionals, is evident throughout the hospital. Basic investigative and support facilities include diagnostic imaging, ultrasonography, magnetic resonance imaging, a nuclear medicine department, modern radiology and a clinical laboratory which includes a sophisticated donor and recipient blood bank.

Air time from San Francisco to Lahore, Pakistan was estimated to be about 24 hours. For this reason, we decided to break it up with an overnight stay in New York. Bill Greaf, Deputy Director of the Northport Education Center, invited us to be his houseguests for the night. While staying with Bill and his wife, we were informed about the bombing at SKMCH. Through use of their fax and telephone, we were able to contact the hospital in Pakistan and Mike Gulley, who used his contacts to get us in touch with the State Department. SKMCH and the State Department did not feel there was any additional danger, so we decided to continue the trip.

There are 12 time zones between San Francisco and Lahore,

which means we traveled 1/2 the way around the globe to work with DHCP in Pakistan. We cannot say enough about the hospitality shown us while we were there. We both would like to extend a very special thank you to Steve Mortlock, Chief Microbiology Technician, and his wife, for their extra special hospitality and professional courtesy during our visit.

Our general impressions of the hospital and its staff were excellent. The hospital projected an excellent image with very competent staff and "state-of-the-art" cancer-treating equipment. They were operational and seeing patients only 18 hours after the bombing. At present, the site has a 96-user 486 PC-based system using MS-DOS and Micronetics Standard M (MSM) configured like a VA 486 client/server system. The site uses seven Digital HUB 90 terminal servers to service 56 ports for CRT's, printers, and direct connect automated instruments. They also plan to network 20 PC's for physician use into their system. DHCP was installed before our arrival, and the site was using DHCP admission/discharge software (modified for their patient ID and some billing issues) for patient registration. Radiology and nuclear medicine were also on line as was order entry results reporting (OE/RR) for radiology and nuclear medicine. The MIS staff are currently trying to understand how to modify OE/RR to provide a "front end" automated billing process for all DHCP modules by using OE/RR. MIS has a staff of about 8-9 persons, who seemed very eager to learn about DHCP. Besides providing custom lab menus, system tuning, and training, we also provided custom programming to develop a lab cumulative form that met the specifications of the medical records chief, a lab label to the lab manager's specifications, direct connect software for the Ektachem 550 and Clinitek 200+ analyzers, and a special routine for lab employees to restart the direct connect automated instrument job.

When we left on May 3, 1996 there was a functioning lab system at SKMCH. This system is basically defined, including microbiology, worklists, interim reports, blood drawing labels, and cumulative reports. However, neither MIS nor lab is ready to bring the system "live." MIS needs to provide 24 hour coverage and assist with the interfacing of more lab instruments. Lab management needs to approve their reference ranges and the cumulative report format. A training plan needs to be developed to train all lab employees. The two lab coordinators were quick to learn about DHCP. As they work with the lab system during the next few months, it is not out of the realm of possibility for the lab to go "live" in 60 days. It would require a maximum effort, but would be possible.

During our 14 day visit, we were able to do a little sight seeing around Lahore. Wally also managed to visit the foothills of the Himalayas. Lahore is located on the Punjab Plain in northeast Pakistan about 15 miles from the border with India. There is an abundance of water in Lahore, so it is very green. We both enjoyed the sights and the food (Wally was able to take the spices a little better than Ed). The return trip started at 8 am on Friday 5/3 and ended at about 11 p.m. on May 3, 1996. Bad weather caused delays in New York, but also allowed us to catch our non-stop flight to San Francisco. Total time for the return trip was about 27 hours.

Our adventure taught us many things, some of which we take for granted in our everyday lives in the United States. These experiences gained from a culture 12,500 miles away demonstrated what a small world we live in. It was very gratifying to impart knowledge about DHCP to such a willing host, and we hope the people of Lahore and employees of SKMCH enjoyed our visit to their part of the world as much as we enjoyed being there. **M**

---

*Ed Bader and Wally Fort are computer specialists with the IRM field office in San Francisco, CA.*

---

## Advertiser Index

We appreciate these sponsors of the March issue and all the companies who support the M community through their commitment to excellence.

Atlas Development Corporation . . . . .	37
AudioCARE Systems. . . . .	4
Career Professionals Unlimited . . . . .	9
CyberTools, Inc. . . . .	5, 22
ESI Technology, Inc. . . . .	15, 29
George James Software, Ltd. . . . .	6
HBO & Company . . . . .	13
Henry Elliott & Company . . . . .	1
	Cover 4
InterSystems Corporation . . . . .	4, 13
KB Systems, Inc. . . . .	35
Laboratory Corporation of America . . . . .	15
LCI, Inc. . . . .	35
Micronetics Design Corporation . . . . .	Insert
Nathan Wheeler & Company, Ltd . . . . .	26
Pittsburgh Business Consultants, Inc. . . . .	15

*This index appears as a service to our readers. The publisher does not assume any liability for errors or omissions.*

# MUMPS

## Programmer/Analysts

HBO & Company (Nasdaq: HBOC) is the leading provider of enterprise-wide integrated software solutions for the healthcare industry and the third-largest software company in Atlanta. HBOC provides software solutions to large hospital enterprises, physician offices, clinics and a variety of other healthcare providers. We have permanent, full-time positions for "M" Programmer/Analysts with 1-4 years of "M" programming experience. As an integral part of our team, you will provide coding enhancements/fixes and employee support as well as resolve technical issues. This is an excellent opportunity to learn Visual Basic, which comprises our front end GUIs, and perform development work over time. You'll also have the opportunity to work with other technologies, including OOP, RDBMS, Client/Server and NT.

Your expertise will be rewarded with excellent benefits (including company-matched 401(k), company stock plans and flex-time), ongoing training, a competitive salary and the opportunity for professional growth in a team-oriented environment. For consideration, forward your resume to: HBO & Company Reply Service, Job Code: W11/SDC, 1050 Crown Pointe Pkwy., Suite 295, Atlanta, GA 30338. FAX (770) 698-1575. E-mail: [scott.claffin@hboc.com](mailto:scott.claffin@hboc.com) (subject line: W11/SDC). No phone calls or agencies, please. HBOC is dedicated to equal opportunity in all aspects of employment. You must have the permanent right to work in the U.S. to be considered. No phone calls or agencies, please.




### HBO & Company

[www.hboc.com](http://www.hboc.com)

**Which  
database  
is the  
lifeblood of  
15 of the  
top 16 US  
hospitals?\***

\*Based on U.S. News and World Report, America's Best Hospitals



InterSystems

# FOR YOUR INFORMATION, IT'S OPEN M.™

The high-performance database for client/server

For more information, check our web site at [www.intersys.com/cw](http://www.intersys.com/cw) or call 617.621.0600, Dept. CM

Open M is a trademark of InterSystems Corporation. Copyright © 1997 InterSystems Corporation.