

Diabetes Information Technology & WebWatch

Database Software for use with Blood Glucose Meters

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ONE OF THE PRACTICAL WAYS in which information technology is seeing increasing application in the field of clinical diabetes care is for the collection and storage of patient self-monitoring blood glucose (BG) data. There are currently a wide variety of computer programs that permit the electronic transfer of such data from patient BG meters to personal computers—for more sophisticated display, analysis, printout, and storage. A selection of software that offers such functionality, and that can be easily downloaded from the Web, are highlighted in this column. In Web parlance, “freeware” software can be downloaded and used for free, while “shareware” software can be downloaded and tried for free—payment only being requested if the software continues to be used. Only freeware or shareware software has been reviewed in the limited space available. Web site URLs (addresses) are shown underlined.

FREWARE/SHAREWARE DIABETES DATABASE SOFTWARE FOR PCs

Diabetic Meter Utility (v1.2) provides a simple way to view BG test results. The program is reported to work with the One Touch II and Profile BG meters, downloading the meter’s results and creating a formatted data log that can then be sent to a spreadsheet or word processing program. The utility also formats the meter’s data to create graphs and statistics for possible analyses and trend graphing. Operating system (OS) requirement: Windows 3.1x. Freeware.
Available from: <http://hotfiles.zdnet.com/cgi-bin/texis/swlib/hotfiles/info.html?fcode=000ATO>

Diabetic Meter Utility (v4.3) is the latest updated full version of this program. OS requirement: Windows ‘95/’98. Freeware.
Available from: <http://www.public.asu.edu/~mpatt/files/dmu43e.zip>

Diabetic Assistant (v2.1) is designed to help people with diabetes keep track of BG data. The application is reported to be particularly well suited to those who use the One Touch II or One Touch Profile Blood Glucose Monitoring Systems. The One Touch systems can be plugged into the PC’s serial communication port for automatic retrieval of test result data from the meter’s memory. Data can be graphed and logged over time. OS requirement: Windows 3.11. Shareware. Free to try.
Available from: <http://hotfiles.zdnet.com/cgi-bin/texis/swlib/hotfiles/info.html?fcode=00047A>

The Diabetic Daily Log (TDDL) is intended to track the daily activities of a diabetic patient. The log will record BG test results, insulin/pill medication, weight, blood pressure, exercise,

meals, and snacks—as well as general comments. OS requirement: DOS/Windows 3.1/'95/'98. Shareware. 30-day free trial period.

Available from: <http://members.aol.com/kennzo/tddl.htm>

Diabetes Mentor records and prints graphs and reports for diabetic patients and/or their care providers. The software tracks BG data, insulin injections, oral medications, calories, carbohydrates, proteins, fats, exercise, and weight. With an additional cable it is also possible to download data directly from popular BG meters. The freeware demo version is fully functional, except it only stores 14 days' worth of data. Operating system (OS) requirement: Windows 3.x or Macintosh. Shareware.

Available from: <http://www.vigora.com/>

Diabetes Control and Analysis Tracking System (DCATS v2.0) is designed for BG, insulin dosage, meal, weight, and blood pressure tracking. The application consists of two data entry menus. OS requirement: Windows '95/'98. Shareware. Free to try. Limited to 50 entries until purchased.

Available from: <http://www.filemine.com/filedownload?fileid=168275>

GLUCOSE.EXE is a basic DOS program that is simple to use. A more sophisticated version is also available from the same Web site for Windows-based machines. OS requirement: DOS/Windows '95/'98. Freeware.

Available from: <http://gcr.med.s.cwru.edu/glucpage.htm>

BG Tracker (v3.0), as its name suggests, is meant for keeping track of BG values. It contains a host of the usual database/graphing features. OS requirement: Windows '95B/'98. Freeware.

Available from: <http://hometown.aol.com/bgtracker/BgTrack/Index.html>

GlucoHealth v1.0 is a database program that is intended to help users keep an organized computer diary of BG test results. Data are ordered by date and time. A master log book displays all records while two custom log books can display records within user-defined time/date/BG ranges. Data can be output to a spreadsheet for graphing. OS requirement: DOS. Shareware. Free to try.

Available from: <ftp://oak.oakland.edu/pub/ad-asp/glucoh.zip>

Diabetes Manager (v1.1) is intended to simplify BG management for diabetic patients. Usual features. OS requirement: Windows 3.1. Shareware. Free to try.

Available from: <http://hotfiles.zdnet.com/cgi-bin/texis/swlib/hotfiles/info.html?rcode=000HVO>

FREWARE/SHAREWARE DIABETES DATABASE SOFTWARE FOR NON-PC COMPUTER HARDWARE/PLATFORMS

BloodPlot is reported to provide similar functions to the programs listed above. These include retrieval of data from the BG meter through the Apple Macintosh serial port (printer or modem) and the plotting of histograms of the measurements. Data can be output to a spreadsheet program for further graphing. Event codes are supported, eg, to mark morning, noon, or evening meals, or "hypos." Hardware requirement: Apple Macintosh computer. Freeware.

Available from: http://www.childrenwithdiabetes.com/download/BloodPlot_sea.hqx

GlucoPilot is a diabetes management application for the hand-held Palm Pilot. Hardware requirement: Palm Pilot. 15-day free trial period.

Available from: <http://www.tweak.org>

USEFUL SOFTWARE REPOSITORIES

The following Web sites contain a wide selection of freeware/shareware software and/or links to Web addresses where such software can be found.

<http://www.diabetic.org.uk/software/meters.htm>

http://www.childrenwithdiabetes.com/d_06_150.htm

<http://www.diabetes.com/features/fst10240.htm>

The following File Transfer Protocol (FTP) servers also contain a wide variety of freeware/shareware software. To access these FTP sites simply enter the addresses quoted as a URL in your Web browser window and click on the file(s) that you wish to download.

<ftp://ftp.demon.co.uk/pub/diabetes/software>

<ftp://ftp.lehigh.edu/pub/listserv/diabetic/mirrors/demon/software>

Issues raised by the use of diabetes database programs—such as those highlighted above—will be considered in the next *Diabetes Information Technology & WebWatch* column.

STAYING UP-TO-DATE

The World Wide Web is constantly changing and being updated. Some sites will cease to function, or change their Web addresses. Furthermore programs highlighted above may be withdrawn at any time. Therefore any printed list of Internet information will necessarily become out of date. A site with up-to-date information about the latest diabetes software available on the Web is:

RickMendoza's "On-line Diabetes Resources" Software Review.

<http://www.mendoza.com/software.htm>

VIRUS INFECTION

In general, readers who are planning to download and use software from the Internet should have installed and be running virus checking software on their computer. Such software should be up-to-date. As good practice, readers are also advised to have a system in place for regularly backing up their hard disk. Special care should be taken to backup any critical data which would be difficult to replace.

Programs are usually stored on the Web as compressed file archives that have to be opened before the program can be installed. It is sensible to check each individual downloaded archive for viruses before actually opening/accessing the archive.

While to the author's best knowledge the above Web sites are *bona fide*—readers are advised to exercise some caution when downloading software from the Web.

CONTACT INFORMATION

Dr. E.D. Lehmann works in the Academic Department of Radiology at St. Bartholomew's Hospital, London EC1A 7BE, UK. He worked for IBM before becoming a doctor and has a long-

standing interest in the application of computers in diabetes care. His personal favorite freeware diabetes software is:

AIDA v4.0 an interactive educational diabetes simulator. This offers the ability to simulate the effects of changes in insulin therapy and diet on the BG profile of example "virtual diabetic patients." The software is intended to support education/demonstration/self-learning use. Computer hardware: PC. Minimum OS requirement: DOS—although runs under Windows 3.x/'95/'98. Freeware.

Available from: <http://www.diabetic.org.uk/aida.htm>

AIDA on-line permits similar interactive educational diabetes simulations to be run in a Web browser window. No download or installation is required. Computer hardware: any—provided connected to the Internet. Web browsers recommended: Microsoft Internet Explorer or Netscape Navigator. Freeware.

Available from: <http://www.shodor.org/aida>

If you would like to suggest additional Web sites for future *Diabetes Information Technology & WebWatch* columns, please email information—with a brief description of the site—to Dr. E.D. Lehmann: aida@globalnet.co.uk (please write *Diabetes WebWatch* in the subject line). You can also fax information to: (650) 697-7703, quoting *Diabetes Information Technology & Web Watch*.

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