

SOFTWARE SURVEY SECTION

Editor's Note: The following Software Descriptions have been submitted by our readers in response to our call for an open exchange of information on software programs. They are offered without review or comment to provide a rapidly published, easily accessible avenue of communication. Other readers with relevant software packages are invited to complete and submit a Software Description Form (found at the end of this section).

Software package EJCCO-011-S88

The Design and Implementation of a CT
Information Management and Diagnosis and
Treatment Decisionmaking System

Contributors: Bo-Qing Deng, Xiao-Qiong and Zai-Fu Su, Department of
Radiology, 1st Teaching Hospital, Tong Ji Medical University, Wuhan, China

Brief description: A system for medical information management and decisionmaking on diagnosis and treatment has been developed. It is coded by dBASE-3 and BASIC, and allows add-, delete-, edit-, append-records, retrieval of data by a given keyword or any given number of parameters, statistical analysis and any kind of report. Supported by the medical database, the system can make a decision using Bayes' Theorem, regression and sequential analysis. The diagnosis process is that the user inputs 14 kinds of parameters of different values at first, if the disease can be inferred, that is acceptable. Otherwise, the system will ask for more information about the patient until the decisionmaking is completed. You can choose one of six treatment schedules (including one Chinese medical treatment schedule). The whole operation can be performed both in Chinese and in English. The practice shows that our system is useful, simple and inexpensive.

Potential users: Doctors, nurses and staff in a hospital.

Fields of interest: Managing information, diagnosis, treatment, education

- § This application program in the area of information management has been developed for IBM PC/XT/AT and compatibles in dBASE-3 and BASIC to run under DOS 2.0 and succeeding versions. It is available on 5-1/4", dual-sided, double-density floppy diskette. Required memory is 512K.
- § Distributed by contributors.
- § The minimum hardware configuration required is 10MB hard disk, CRT and printer. User training is required. There is extensive external documentation. Source code is available.
- § The package is fully operational. It has been in use at 3 sites for approximately 6 months. The contributor is available for user inquiries

Software package EJCCO-012-S882V STAT Medical Decision Support for
Diagnosis and Treatment

Contributor: Dongbong Kim, M.D., 2V Medtech International Corporation,
2480 Windy Hill Road, Suite 201, Marietta, GA 30067

Brief description: 2V STAT is a brand new medical software, designed to provide up-to-date medical algorithms (flow charts) and references for diagnosis and treatment. The user can create his own algorithm up to 1000. Medical algorithms have been grouped as the following:

- A Group: Sign, symptom and complaint
- B Group: Organ and system
- C Group: 69 different medical specialties
- D Group: MDC/DRG and new healthcare delivery system

Two different approaches to access an appropriate algorithm; menu driven, and index search approach.

Potential users: Pathologists, psychiatrists, internists, family practitioner, any specialists, medical students wanting to create their own medical knowledge database.

- § This application/utility program in the medical area has been developed for IBM PC/XT/AT or compatibles in Turbo Pascal and Assembly to run under DOS 2.1 (greater) and higher. Required memory is 256K.
- § Distributed by 2V Medtech International Corporation.
- § The minimum hardware configuration required is 30 megabytes and color monitor. No user training is required. It is self-documenting. Source code not available.
- § The package is fully operational. It has been in use at 20 sites for approximately 6 months. The contributor is available for user inquiries.

Software package EJCCO-013-S88PMCARD: A Program to Store Patient,
Pacemaker and Lead Data Into A Very Small
Memory-Support

Contributor: R. Bedini, Istituto Superiore di Sanita, Laboratory of Biomedical Engineering, Viale Regina Elena, 299 - 00161 Rome, Italy

Brief description: PMCARD has been developed to help the physician to compile and memorize a card with patient and pacemaker data. The program memorizes and prints out 77 items and some comment lines. It was designed for the physician to be able to compile or print out the desired information by pressing a numerical key. The clinical and technical data have been chosen according to both E.W.G.C.P. (European Working Group of Cardiac Pacing) and I.A.P.M. (International Association of Pacemaker Manufacturers) standards and also upon requests resulting from meetings with heart surgeons (S. Camillo Hospital-Rome). The data has been divided into nine parts and, if necessary, may be rewritten. In fact the program also allows for their separate compilation. Some items may be stored for a long time to give a clinical history of the patient. When the data are memorized it is possible to print out the complete pacemaker registration card, or simply the most desired items. This program has two kinds of menus: the main menu compiles the card; the other obtains the hard copy with the relevant information.

Potential users: Cardiologists, physicians.

Fields of interest: Cardiology.

- § This application program in the area of cardiology has been developed for X-07 CANON in X-07 BASIC to run under the X-07 System. It is available on CMOS RAM Card supplied by lithium-battery. Required memory is 16K.
- § Distributed by CANON.
- § The minimum hardware configuration required is one 8K-RAM Card and one color graphic printer. No user training is required. It is self-documenting. Source code not available.
- § Design is complete. The contributor is available for user inquiries.

Software package EJCC0-014-S88Hypertension-Aid in Physician Treatment
(HTN-APT)

Contributor: Victoria L. Siepmann, JPS Medical Software, 886-D Homestead Lane SE, Rochester, MN 55904

Brief description: The Hypertension-Aid in Physician Treatment (HTN-APT) software was designed and created by physicians to optimize the management of the hypertensive patient. It uses artificial intelligence and large drug information databases to assist in finding the optimal antihypertensive treatment regimen for each patient. Its many functions include:

- 1) Maintaining a database with charting capabilities for each patient
- 2) Developing a critique of the patient's current therapy based upon the patient's history
- 3) Providing a ranked listing of treatment recommendations based upon the patient's history
- 4) Allowing critiques to be generated on any drug whether it was recommended or not
- 5) Providing summary information on any drug, including descriptions, pharmacology, dosages, precautions, side-effects, interactions and cost

Hypertension-APT offers pertinent and specific information and recommendations which enable the physician to find the best possible treatment regimen for each patient.

Potential users: Primary-care physicians, medical students, residents.

Fields of interest: Anyone involved in the treatment of hypertension.

- § This application program in the area of HTN treatment has been developed for IBM PC/XT/AT or compatibles in Compiled BASIC to run under DOS. It is available on 5-1/4", single- or dual-sided, double-density floppy diskette. Required memory is 128K.
- § Distributed by JPS Medical Software.
- § No user training is required. It is self-documenting. Source code not available.
- § The package is fully operational. It has been in use at 50 sites for approximately 1 year. The contributor is available for user inquiries.

Software package EJCC0-015-S88DIGIT

Contributors: Drs. B.P. Hayes and F.W. Fitzke, Department of Visual Science, Institute of Ophthalmology, Judd Street, London WC1H 9QS, England

Brief description: The DIGIT software (£70 for disc and manual), BBC Microcomputer and Grafpad digitiser tablet provide a complete, low cost, semi-automatic image analysis system (resolution 0.2mm). DIGIT allows the Grafpad to be used as a point counter, to measure linear distances, and to digitise and measure shapes from drawings, photographs, micrographs or maps.

Digitised shapes can be displayed at different magnifications, printed and corrected; the perimeter, area, radius, volume, Feret diameters (maximum, minimum, angles and mean Feret), convex perimeter, centre of gravity and shape factors (roundness, length/breadth, area-convex perimeter and roughness) can be scaled and measured. The width of an irregular layer or annulus can also be found. Results are displayed and printed as histograms with statistics and programs for editing shapes or numerical measurements are included. Special versions are being developed for the measurement of Goldmann visual fields and the analysis of two dimensional arrays of cells.

Potential users: Biologists, medical sciences, materials science, geographies.

Fields of interest: Microscopy, map measurement, morphometry, electron microscopy.

§ This application program in the area of image analysis has been developed for BBC Micro in BBC BASIC/Machine code to run under OS 1.2 and later. It is available on 5-1/4", single-sided, single-density floppy diskette. Required memory is 32K.

§ Distributed by Institute of Ophthalmology.

§ The minimum hardware configuration required is one disc drive, printer, Grafpad digitising tablet. No user training is required. There is extensive external documentation. Source code not available.

§ The package is fully operational. It has been in use at 1 site for approximately 1 year. The contributor is available for user inquiries.

Software package EJCCO-016-S88

Genetics Tutorial - CompTutor Software

Contributor: Scott Neufeld, 6 Lake Road, Peekskill, NY 10566

Brief description: The Genetics Tutorial program, written in CompTutor Software, is an advanced tutorial in microbial and modern genetics. It gives an overview of genetics as well as a detailed discussion of mutation, replication, hybridization, and Mendellian genetics. Stunning graphics created by Thunderscanner Digitizing software make this tutorial exceptional. Combines graphics and text in a comprehensive genetics tutorial.

Would like collaboration to make the tutorial even more comprehensive, perhaps covering recent developments. It is an open tutorial--additions can be made easily due to the nature of the language.

Potential users: Biology students, teachers/professors.

Fields of interest: Biology, genetics.

§ This application program in the area of modern and microbial genetics has been developed for Macintosh 128K/512K/Plus/SE in Compiled/CompTutor language to run under Macintosh OS Finder. It is available on 3-1/2", single- and dual-sided, double-density floppy diskette. Required memory is 128K minimum.

§ Distributed by contributor.

§ No user training is required. It is self-documenting. Source code not available.

§ The package is fully operational. The contributor would welcome collaboration. It has been in use at 2 sites for approximately 1 month. The contributor is available for user inquiries.

JOURNAL NAME EUROPEAN JOURNAL OF CANCER & CLINICAL ONCOLOGYP E R G A M O N P R E S S
SOFTWARE DESCRIPTION FORM

Title of software program: _____

Type of program: ☐ Application ☐ Utility ☐ Other _____Category: _____ (ie. Psychological assessment,
statistics, thermodynamics, etc.)

Developed for (name of computer/s): _____

in (language/s): _____

to run under (operating system): _____

available on: ☐ Floppy disk/diskette. Specify:Size _____ Density _____ ☐ Single-sided ☐ Dual-sided☐ Magnetic tape. Specify:

Size _____ Density _____ Character set _____

Hardware required: _____

Memory required: _____ User training required: ☐ Yes ☐ NoDocumentation: ☐ None ☐ Minimal ☐ Self-documenting
☐ Extensive external documentationSource code available: ☐ Yes ☐ NoStage of development: ☐ Design complete ☐ Coding complete
☐ Fully operational ☐ Collaboration welcomedIs program in use? ☐ Yes ☐ No How long? _____ How many sites? _____Is the contributor available for user inquiries: ☐ Yes ☐ No

Distributed by: _____

Cost of program: _____

Demonstration disk available? ☐ Yes ☐ No Cost: _____

(continued)

RETURN COMPLETED FORM TO:

Professor H. Tagnon
Institut Jules Bordet
Centre des Tumeurs
1 rue Heger-Bordet
B-1000 Bruxelles, Belgium

[This Software Description Form may be photocopied without permission]

Description of what software does [maximum: 200 words]:

Potential users: _____

Field/s of interest: _____

#

Name of contributor: _____

Institution: _____

Address: _____

Telephone number: _____

#

Reference No. [Assigned by Journal Editor] _____

[The information below is not for publication.]

Would you like to have your program:

Reviewed? [] Yes [] No [] Not at this time
Marketed and distributed? [] Yes [] No [] Not at this time

[This Software Description Form may be photocopied without permission]