

CardioSoft Resting ECG & Exercise Stress Testing

Providing reliable information to support diagnostic decisions

The CardioSoft™ Resting ECG and Exercise Stress Testing applications transform your physician office PC into a cardiac testing station. For both applications, the Cardiac Acquisition Module (CAM-14) with the CAM USB interface is easily connected from the patient to your PC's standard USB port. The CAM-14 provides high-quality ECG presentation for accurate cardiac assessments of your patients. Its superior digital signal processing reduces artifact for clearer tracings.

Resting ECG

CardioSoft provides physicians with reliable information available to support cardiac diagnostic decisions. It features GE's Marquette® 12SL™ ECG analysis program, one of the industry's most thoroughly documented, computer-interpreted 12-lead ECG program.

CardioSoft Resting ECG provides on-screen ECG measurements for paperless workflow, yet allows you to print multiple report formats when a hard copy is required. These flexible report formats enable you to choose the reports you find most useful. It provides multiple interpretive statements to facilitate your final diagnostic decision.

The resting ECG module also allows you to store full disclosure data when needed. Robust editing functions make report generation fast and simple.

Data from your current GE ECG systems such as MAC® 1200 or MAC 5000 can also be transferred into the CardioSoft database, creating an electronic record for further viewing, editing, printing and exporting of the final report including ECG waveforms.



Exercise stress

The CardioSoft Exercise Stress Testing application offers the familiar GE CASE® interface in a software only approach. The CAM-14 provides well-defined ECGs, even in the high-noise stress environment.

Consistent with the data provided from CardioSoft's Resting ECG application, the Exercise Stress Testing application uses the same high-quality Marquette 12SL and 15-lead ECG analysis programs the industry has come to rely on. Furthermore, Finite Residual Filter (FRF) provides ECG baseline correction and artifact resolution without sacrificing critical ST measurements. Automatic Arrhythmia Detection assists in documenting arrhythmias that occur during stress.

In addition to the stress testing you perform everyday, the CardioSoft Exercise Stress application offers a portable stress solution for pharmacologic stress testing. The portability of your laptop provides additional flexibility for your environment.

CardioSoft's flexible interface accommodates custom set-ups to meet and review reporting preferences of any physician. Its database capability presents a paperless solution for the storage of your stress tests. Data can be exported in Word, PDF or XML formats, and is able to be stored either in CardioSoft's database or archived to a CD or the market-leading MUSE Cardiology Information System.

Data obtained from your CASE system can be stored in your CardioSoft database. CardioSoft stations can be combined with CASE stations via a Local Area Network to free your CASE system for testing and the CardioSoft system for editing, viewing, printing and exporting.

Technical specifications	
Signal processing	
ST measurements	ST amplitudes, slope, integral, index, ST/HR slope, ST/HR loops, ST/HR
E, J and post-J point	Manual or computer selected
Signal processing technique	Incremental median updating
Baseline correction	Cubic spline or Finite Residual Filter (FRF) algorithm
QRS detection and analysis	Based on automatic or manual lead selection
ECG output	Real-time ECG/QRS beep/TTL synchronization output
Heart rate	Automatic arrhythmia detection, documentation and annotation
Full disclosure ECG	Beat-to-beat ECG record and event review
Reanalysis	Post-test medians measurements from E, J, post-J point selections
ECG	(Optional) 12SL adult and pediatric ECG analysis program
Additional ECG function	Vectorcardiography

Technical specifications

Communications/storage

MUSE systems compatible via diskette; network (optional)	
MUSE Web compatible for retrieval view and printing of MUSE system data	
PDF export of final reports (auto export and custom file name)	
Microsoft® Word export of configured reports	
XML or Excel export of specified data	
EMR Connectivity	GE Centricity Physician office - EMR Limited HL7 output for other EMR's

Data Acquisition (via CAM-14)

Technology	Active, "Type BF" floating isolated powered 14 channel acquisition module with built-in lead-fail detection and lead prep impedance measurement
Sampling rate	Over-sampling @ 4000 Hz, 12 leads
Dynamic range	320 mV, ± 10 mV signal superimposed on ± 150 mV DC offset
Resolution	4.88 μ V/LSB @ 500 Hz
Noise	<15 μ V peak-to-peak noise over 0.01 to 150 Hz (-3 dB) bandwidth
ECG analysis frequency	500 Hz
High pass filter	0.01 (or 0.05 Hz, special use) with DC offset control
Low pass filter	20, 40, 100, 150 Hz (selectable)
Line filter	50.0 or 60.0 Hz notch filter (selectable)
Baseline correction	Cubic spline algorithm
Artifact/baseline correction	FRF and cubic spline algorithm
Common mode rejection	>140 dB (123 dB with AC filter disabled)
Input impedance	>10 M Ohms @ 10 Hz, defibrillator protected
Patient leakage	<10 μ A
Pace detect	Orthogonal LA, LL and V6; 750 μ V @ 50 μ s

Ordering information

Available in: Czech, Danish, Dutch, English, French, German, Hungarian, Italian, Spanish, Swedish, Japanese, Chinese, Norwegian, Polish, Slovakian and Russian

GE Healthcare
3000 North Grandview
Waukesha, WI 53188
U.S.A.
www.gehealthcare.com

©2005 General Electric Company – All rights reserved.

General Electric Company reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation.

GE, GE Monogram, CardioSoft™, Marquette®, 12SL™, Mac® and CASE® are trademarks of General Electric Company.

Microsoft® is a trademark of Microsoft Corporation.

GE Medical Systems Information Technologies,
a General Electric company, going to market as GE Healthcare.



imagination at work