CardioCard®System

Product Specification and Sample Reports

CardioCarf Ì ″ *CardioCardÌ* *CardioCatf Ì*
PC-Based ECG   PC-Based Stress   PC-Based Holter

Nasiff Associates, Inc.
leading patient care

Table of Contents

1 CardioCard®System

Advanced Cost-Effective ECG Management on your PC

CardioCard ECG: complete interpretive real-time, 12- lead ECG capable of recording, analyzing and storing data using a windows based PC. Historical comparison capability. A truly portable system, you can use it with a laptop computer and take it anywhere.

– unlimited patient database

– built-in networking

– EMR compatible

CardioCard Stress/Exercise: array of real-time exercise test protocols and a number of custom protocols. On screen views include all 12- lead simultaneous, stage time, total time, speed, grade, target HR, ST levels and slopes *(for all leads),* blood pressure, METs, resting and current 6 second median beat for all leads. Built in controls for several treadmills and ergometers. Monitoring details are shown on screen throughout test, with automatic real-time printing to any windows printer.
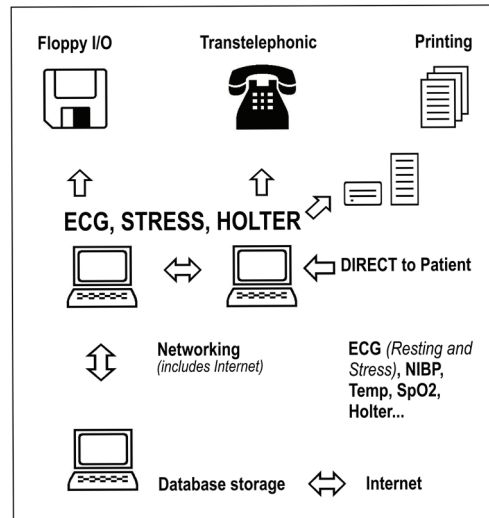
– unlimited patient database

– built-in networking

– EMR compatible

– baseline correction, full disclosure

CardioCard Holter: complete PC-Based Holter with automatic analysis of patient data. Holter recorder has three channels with the ability to do both 24 and 48 hour testing. All patient data is collected on a PC flash card and transferred via a USB port connected card reader to the

advanced database management system within the CardioCard software.

– unlimited patient database

– built-in networking

– EMR compatible

– full re-analysis, editing and reporting capabilities

• Instant database storage and retrieval *(ECG, Stress, Holter, NIBP, SpO$_2$ and more)*

• Portable patient records *(easy upgrades on floppy disk also)*

• Clinical management/outcomes

• Notebooks and desktops - PCMCIA & ISA *(no serial ports wasted)*

• Heart rate, STs, display and hi/lo limits

• Serial historical comparisons

• Interpretation classes - MIs, blocks, enlargements, axis

• Automatic and cursor measurements

• Batch communication: phone, fax, floppy, serial cables, networks and internet *(over reading from remote sites)*

• Start small or big to match your budget

• Central station remote viewing

• Network database sharing

• R wave gate option available

• Pacemaker detection option available

- Vitals: NIBP, Temp and SpO$_2$ *(more modules)*
- Plain paper print *(real-time)*
- NO batteries

Floppy I/O   **Transtelephonic**   **Printing**

ECG, STRESS, HOLTER

DIRECT to Patient

Networking *(includes Internet)*

ECG *(Resting and Stress)*, **NIBP, Temp, SpO2, Holter...**

Database storage   **Internet**

🖱**Simple Windows Point-and-Click**🖱

2 CardioCard®System
Features for the Stress/Exercise Module

All of the Features of the CardioCard System

- Unlimited resting strips

- Large number of real-time exercise test protocols *(e.g. Bruce, Naughton...)* and 10 custom protocols *(up to 40 phases each)*

- During test information on-screen includes: phase time, total time, speed, grade *(or watts),* target HR, ST levels and slopes *(for all leads),* blood pressure, METs, resting and current 6 second median beats for all leads...

- Automatic **real-time during test printing** *(any Windows printer),* annotations, blood pressure prompts, automatic blood pressure determinations, interpretations

- Built-in controls for numerous treadmills and ergometers

- Storage to CardioCard database along with all patient data: standard ECGs, NIBP...

- Baseline correction

- Full disclosure of all ECGs during test and in database

- Database allows view and print of all phases and their specific annotations, diagnostics and blood pressures; print any stage, strip or entire test full disclosure

- Reports *(to screen and/or printer)*:

  – view all phases ECGs on-screen

  – view or print full disclosure

  – clinical Indications report

  – measurements for all phases

– print all phases stored ECGs with their demographics

– stress test summary *(target HR...)*

– speed/grade tables

– HR/BP phase tables and graphs

– every minute BP tables and graphs

– ST max and ST average tables and graphs for each lead

– representative beats for all stages, leads

⌃☐**Simple Windows Point-and-Click**⌃☐

3 CardioCard®System
Features for the Holter/Ambulatory ECG Module

- Flash, cassette with playback hardware and USB recorders

- Automatic analysis: retrospective and prospective. Allows changing of analysis classification criteria by user while in database

- All of the features of the CardioCard System *(calipers, printing, auto scroll...)*

- Storage to CardioCard database with all other standard and exercise 12- lead ECGs

- Full disclosure and summary printing and viewing on screen of all data

- View and edit all beats for all channels and their specific event marks and arrhythmia annotations

- Reports *(to screen and/or printer)*:

    – summary of test with demographics, HR values, ST values, HRV calculations, # of abnormals...

    – event/episode reports

    – 10 second calibrated page for any selected event

    – hourly HR, ST, VE tables

    – full disclosure of all ECGs histograms

    – heart rate

    – auto scroll playback to scan entire test

    – R-R dispersion graphs

    – color coded abnormal beats

    – ST graphs

    – VE tables and graphs

    – ST severity tables

    – automatic full diagnostic size prints of events

    – HRV: time and frequency

- On screen condensed and zoomed viewing and printing - 1 minute, 12 minute, 4 second, 2 second *(auto scroll operates with all views and with all step rates providing a high degree of control)*

- Powerful report features including select channel, gain...

- Powerful editing and viewing features including select channel to analyze, sensitivity, VE and SVE parameters...

4 CardioCard®System
Features for the NIBP, SPO₂ and Temperature Modules

- Storage to CardioCard database with all other tests

- Reports to screen and windows printers

- **NIBP Specifications:**

  Method: *oscillometric*

  Modes: *STAT and automatic intervals*

  Autoinflation inflation intervals: *1 minute to 99 minutes*

  Determination time: *typically 15-50 seconds*

  Automatic reinflation: *50 +/- 10mmHg over previous systolic*

  Maximum cuff pressure: *320 +/- 10mmHg*

  Display range: *10 - 300mmHg*

  Memory: *stored in timed order. Time aligned with ECGs*

  Reports: *systolic & diastolic per test stage or every minute*

  Hi/low user set limit indicators:
  *defaults: systolic 20 and 240mmHg
  diastolic 15 and 180mmHg*

- **SpO2 Specifications:**

  Range: *0 - 100%*

  Resolution: *+/- 1%*

  Accuracy: *+/- 2% for 100 - 70%
  +/- 3% for 69 - 60%*

Memory: *can be stored in time order aligned with ECGs*

Sensors:
*finger, ear
reusable, disposable*

- **Temperature Specifications:**

  Range: *92 - 108F*

  Continuous monitoring: *oral, rectal, axillary probes*

⌐🖰**Simple Windows Point-and-Click**⌐🖰

Holter Narrative Summary Report   9/27/2013

Nasiff Associates, Inc.
Dr. Cardiology
941-1 County Route 37
Central Square, NY 13036
315.676.2346

Patient Demographics

Name: Holter, Lody
Patient ID : 112233445   Chart #:
Sex: F   Age: 80. Ht: . Wt:
Indication/History:
Medications:
  .

Rhythm:

Supervising MD: Dr. Cardiology
Nurse/Tech#:
Referring Physician:
Date of test: 2009-03-23 Time: 14:05 – (35)11:23 Day2.

Total time recorded: 21 hr.   18 min.

Primary Channel Analyzed (1,2,3): 1
Scan Quality:

Heart Rate Data

Total Beats: 42264 (38 Not Norm)
Min: 89 bpm   at 18:11:18 Day1.
Avg : 74 bpm
Max: 118 bpm   at 18:10:28 Day1.

Ventricular Ectopics

Ventricular Ectopics (VE):   29 (<1%)
VE Runs: 0
Couplets: 0
Bigeminys: 11   Trigeminys: 0

Heart Rate Variability

SDANN:28   SDNN:59   SDNN Index:8.
pNN50:0   RMSSD:23.
VLF:off LF:off HF:off.

Supraventricular Ectopies

Supraventricular ectopics (SVE):   10 (<1%)
SVE Runs: 3
Pause (>2 sec):   0
Techy Runs: 1
     Techys (> 130 bpm):   41 (<1%)
Brady Runs: 0
     Bradys (< 50 bpm):   2 (<1%)

ST Data

ST4D Min: -1.2 at 18:06:52 Day1.
ST4DAvg: 0.54
ST4D Max: 0.0 at 15:47:14 Day1.
ST Slope Min: -0.8 at 18:13:39 Day1.
STSlope Avg: 1.00
SI Slope Max: 2.5 at 18:00:00 Day1.

Atrial Fibrillation

Afib: Num: 34 (0%)
Onset: 18:13:16.

The patients average heart rate was 74. Tachycardia was detected <1% of the time. (00:00:18 total duration)
Bradycardia was detected <1% of the time. (00:00:01 total duration Brady)
Number of Afib beats: 34. 0%, Onset: 32:18:18.

29 Ventricular Ectopics were detected, Representing (<1%) of the time. (00:00:42 total duration VE)

10 Supraventricular ectopics were detected, Representing (<1%) of the time. (00:00:06 total duration SVE)
The longest SVE run lasted 2 seconds, and was 3 Beats. at 15:00:54. (00:00:01 total duration SVE Runs)

No Pauses were detected.
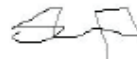AVG ST4D Was 0.54. Min: -1.2 at 18:06:52. Max 2.0 at 15:47:14.

Interpretation(Notes):

Comments: 02/18/2013. NORMAL. OVERREAD BY DR. NORMAL

Date: Reviewed by: Dr. Cardiology   *Signature*:
Time:

(c)Nasiff Cardio Card

Name: Testing1	SSN: 001111111

Comments: An unlimited amount of comments can be entered in this area. The short comments
can be on the first page, but more can be added ini this section. You can also
cut and paste from other programs using standard Windows control-insert and
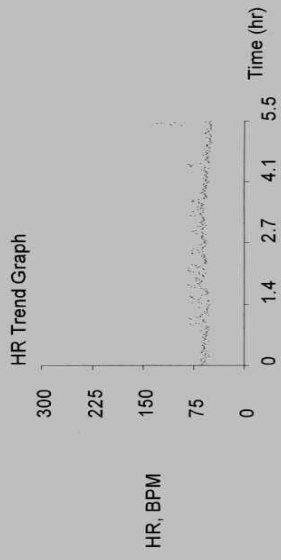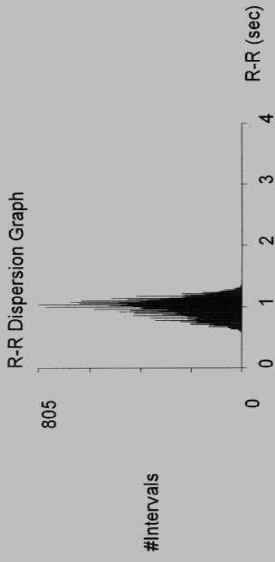shift-insert too.

Name: Testing1   **SSN: 001111111**

Hourly Heart Rate / Arrhythmia Beat Table

Time HR:MIN	HR (BPM) Min-Max(Avg)	#Norm Bt	#NNORM	Bi/Trig	Co/>=3VE Rn(Trip)	ST40/STS
15:6	51- 79(58)	3533	3	0/0	0/0	2.7/-6.6
16:6	50- 82(63)	3764	4	0/0	0/0	2.5/-6.7
17:6	54- 83(63)	3809	0	0/0	0/0	2.3/-6.9
18:6	55- 80(63)	3770	1	0/0	0/0	2.4/-6.7
19:6	49- 84(57)	3438	2	0/0	0/0	2.4/-6.8

Time HR:MIN	Tachy	Brady	SVE	Pause	R-on-T	PVC	>=3 SVE Run
15:6	0	4	3	0	0	0	0
16:6	0	99	3	0	0	1	0
17:6	0	0	0	0	0	0	0
18:6	0	0	1	0	0	0	0
19:6	0	183	2	0	0	0	0

HR Variability Graphs

R-R Dispersion Graph

#Intervals

805

0

0   1   2   3   4

R-R (sec)

HR Trend Graph

HR, BPM

300

225

150

75
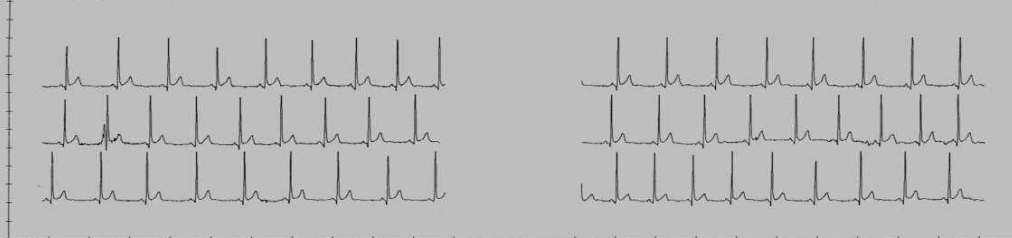
0

0   1.4   2.7   4.1   5.5

Time (hr)

Name: Testing1. SSN: 001111111.

Name: Testing1. SSN: 001111111.　　　　Condensed Event Strips　　　　Date 09/12/2000
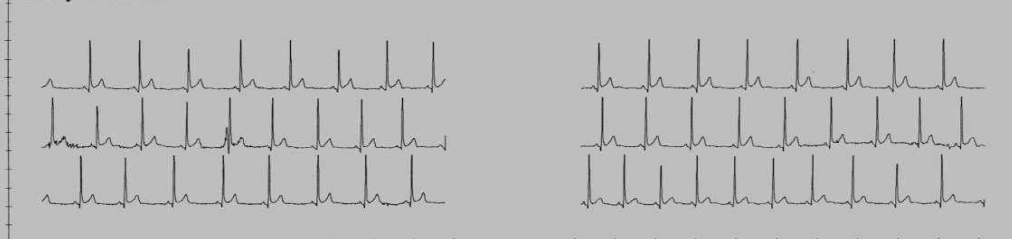
>=3Brady Run. Hr: 49

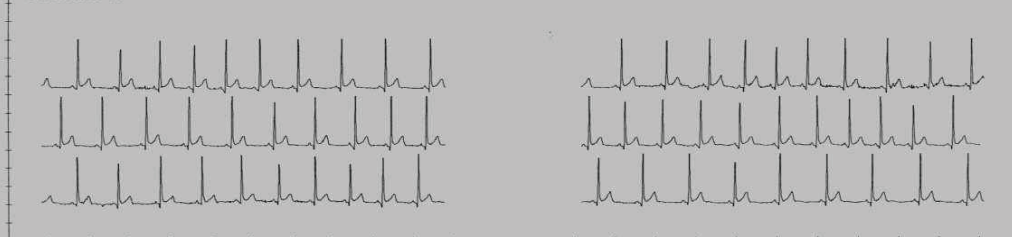Ampl: 1mV/mark, Time: 1 sec/mark　　　3:57:53P　　　　4:13:22P

Bradycardia. Hr: 48

3:57:50P　　　　4:13:20P

SVE. Hr: 65

3:25:7P　　　　3:48:11P

Isolated PVC. Hr: 68

4:53:5P

CH1 - 60sec. Gain: 1

Exercise Stress Summary Report (NAI Cardio-Card)   2/21/2003

Nasiff Associates, Inc
Brewerton, Ny 13029   866-NASIFFA or
315-676-2346

Patient Name: biosim   **Pat # (ssn):** 123456789.   **Run#:** 0

Indication/History: **Date of test:** 01/16/2003.

Referring MD:
Medications:

Age: 44   Protocol: Bruce
Total time of test: 13min.   35sec.   Target heart rate: 187
Max heart rate detected: 75   % of Target heart rate: 40
Min heart rate detected: 38   Max systolic bp detected: 110

Reason for stopping test: Completed Protocol   **_* Signature *:_**

Interpretation notes: Negative,,

Heart Rate / BP Table   **Page:1**

Stage	(MPH) Speed	(Degr) Grade	(Sec) Durat	HR(bpm) Avg/Max	MET/%tar	(mmHg) NIBP	STL/STS/V.m	Symptoms
Rest	-----	-----	-----	51/NR	-----/ 27	110/ 70	1.12/0.45	
1	1.7	10	180	48/ 53	4.9/ 28	120/ 80	-0.92/-1.58/0	
2	2.5	12	180	51/ 53	7.3/ 28	120/ 80	-0.91/-1.56/0	
3	3.4	14	180	51/ 53	10.0/ 28	120/ 80	-1.02/-1.67/0	
4	4.2	16	180	51/ 53	12.5/ 28	120/ 80	-0.61/-1.29/0	
5PK	5.0	18	95	57/ 75	15.0/ 40	120/ 80	-1.09/-1.72/0	
Rec	Rec	0	60	72/ 73	0.6/ 39	120/ 80	-1.29/-1.70/0	
Rec	Rec	0	60	72/ 73	0.6/ 39	115/ 75	-0.85/-1.61/0	

Office:
Physician:
PATIENT: biosim1
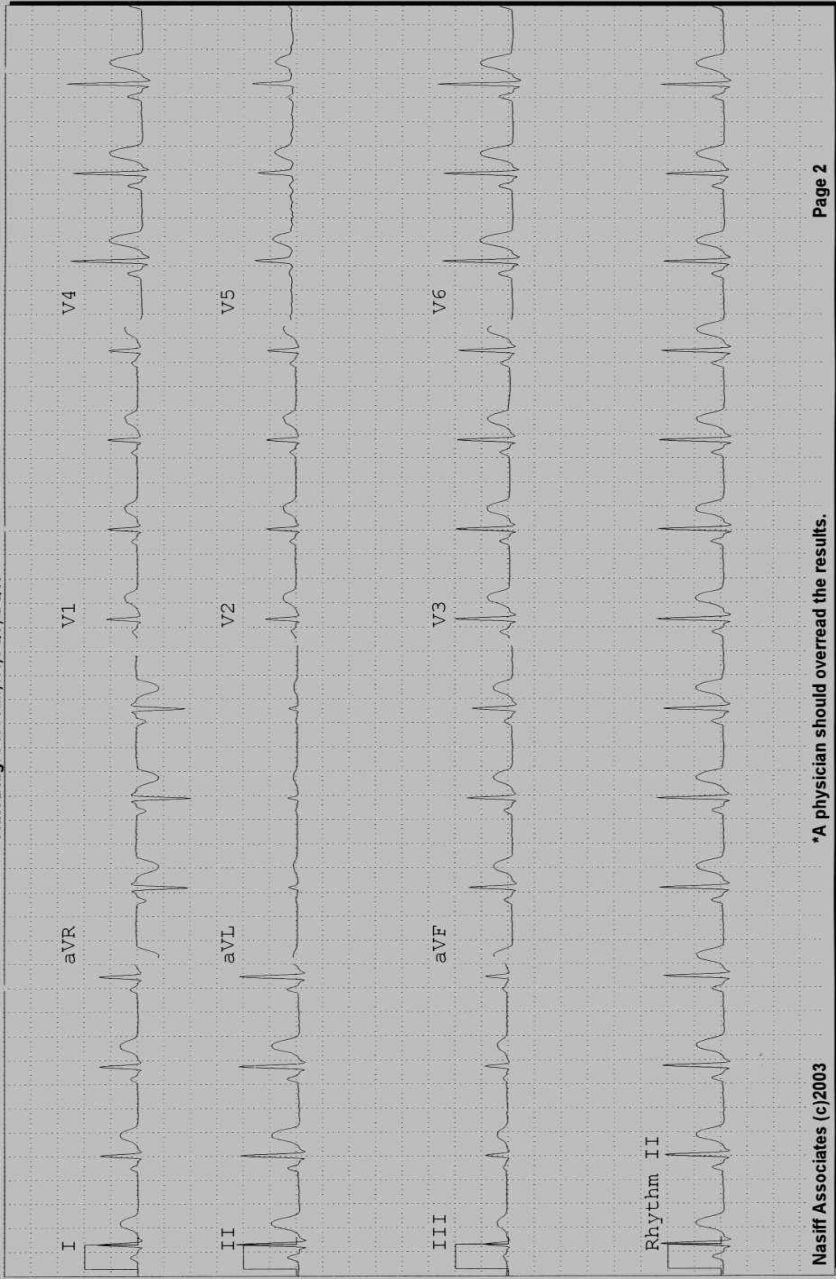Pat# (ssn): 123123123
Age,Sex,Ht,Wt: 44

10mm/mV, 0.05-100Hz
Medications:
Blood Pressure: 120/80
Prot.Stage: Bruce.1
Speed: 1.7mph,Grade: 10%

6:17:51 PM,4/10/2003,Run:1
HR (bpm): 81
R-R (ms): 740
P dur (ms): 80
PR int (ms): 110
QRS dur (ms): 84
P/R/T axis: 46/46/46
QT/Qtc (ms): 320/354

*Confirmed by (required):
*AutoDiag: PNORM,TA,SQT, SQT.

Stress Interp / Comments:
1st

I

aVR

V1

V4

II

aVL

V2

V5

III

aVF

V3

V6

Rhythm II

Nasiff Associates (c)2003   *A physician should overread the results.   Page 2

Name: MarkC . SSN: 777777777 .   Full Disclosure Report   Date 11/28/2004

10 sec/mark   Chan 1, Gain: 1, Page 1

Nasiff Associates, Inc. • 841-1 County Route 37, Central Square, NY 13036 • (t) 866.627.4332 • (f) 315.676.4711 • www.nasiff.com

USA FDA Clearance since 1989
Veteran Owned
Made in USA