Ambulatory BP

Event Recording

Holter Monitoring

Stress Testing

Resting ECG

ECG Data Management

Patient Privacy & Data Security

The Symphonet server receives encrypted ECG data from each of the remote sites, then decrypts the data and moves it to the Impresario patient database for analysis.

Impresario sends the final report and sample ECG strips in a PDF file back to the Symphonet server where it is transferred to the appropriate remore site via secure FTP or secuire HTTP.

With HIPAA compliant 128 bit SSL encryption of all transmissions and secure coding of records you can be sure that only authorised users are accessing the SymphoNet platform.

Minimum Specifications for System Installations

Symphonet Remote Client

Minimum Specification

Processor	Intel Pentium$^®$ II
Memory	128 MB
Hard Disk Capacity	5 GB
Operating System	Windows 2000 (SP4) or Windows XP (SP1)
Ports	1 parallel, 1 USB port
Internet Connection	56K baud analogue modem
Printer	Any Windows compatible laser printer

Recommended Specification
As above with:

Processor	Intel Pentium$^®$ IV
Memory	256 MB
Ports	1 parallel, 2 USB ports
Internet Connection	Broadband e.g. DSL, T1, cable modem

FTP Server

Minimum Specification

Processor	Intel Pentium$^®$ IV
Memory	256 MB
Available Hard Disk Space	1 GB
Operating System	Windows 2000 (SP4) or Windows XP (SP1)
Network Interface	100 base T

Recommended Specification

Processor	Intel Pentium$^®$ IV
Memory	256 MB
Available Hard Disk Space	2 GB
Operating System	Windows 2000 server
Network Interface	100 Base T

*Specifications are subject to change - for turnkey system specifications for Symphonet Server please refer to the Symphony brochure.

Although the system will operate with minimum requirements installed, for optimum perfromance the recommended specifications should be used

www.delmarReynolds.com

Distributed by:

Del Mar Reynolds Medical Ltd.
1 Harforde Court, John Tate Road,
Hertford, SG13 7NW, United Kingdom.
Tel: +44 (0)1992 507700
Fax: +44 (0)1992 501213
Email: europe@dmr.ferrarisgroup.com

Del Mar Reynolds Medical, Inc.
13 Whatney, Irvine
CA 92618-2837, USA
Tel: +1 (800) 423-0480
Fax: +1 (949) 699-3380
Email: usa@dmr.ferrarisgroup.com

Holter Monitoring

delmar Reynolds™

Symphonet™

Remote Client 1
Doctor's Office

Remote Client 2
Clinic

Remote Client 3
Outlying Hospital

Firewall

Secure FTP Server

Central Holter Analyser

- Secure transfer of raw ECG & Holter reports between remote locations and analysis centres

- Easy set-up and maintenance with secure FTP server OR managed file transfer service

- Outstanding performance for both low and high volume Holter traffic

- Fully scalable to protect your investment
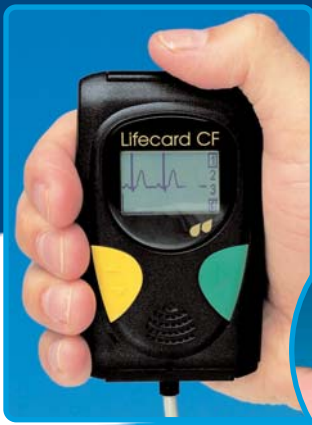
Simple, secure and effective transmission of raw ECG and completed Holter reports between medical facilities
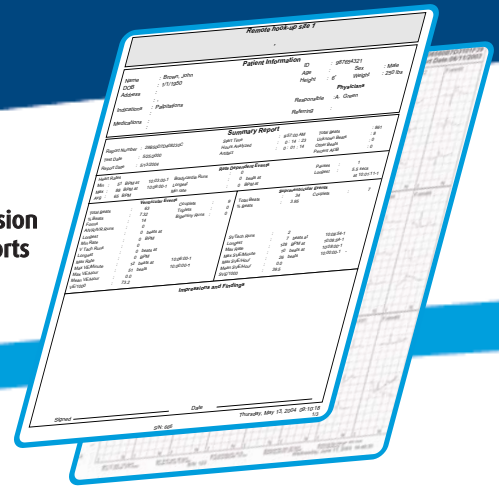
Symphonet - Holter communication technology that puts you in control

Symphonet is the latest innovation in Holter Communication technology from Del Mar Reynolds.

As easy to use as it is secure, Symphonet adds a new dimension to **information management** in Holter analysis.

In its simplest form, Symphonet allows you to **securely transfer raw ECG** from any remote site to a **central analysis** location. A PDF of the **Holter report is returned** via the same secure route for review at the remote site.

Whether in a large Hospital, Group Practice or Clinical Research environment Symphonet helps you maximise the efficiency with which Holter ECG is analysed and reports shared.

Symphonet is made up of three integrated components:

· **Symphonet Remote Client**

An intuitive interface guides the user through ECG download and transmission to the analysis centre.

· **Symphonet Server**

Secure 128 bit encryption through FTP server or managed file transfer service depending on user requirements.

· **Impresario with Symphonet enabled**

The analysis centre is notified of recordings received, which are analysed as normal and the reports returned. Reports can still be shared and viewed across existing networks.

Secure Holter over a Wide Area Network - as easy as 1-2-3

Hook-up can now be performed anywhere, in the most convenient location for staff and patients. Multiple remote sites, with Symphonet Remote Client enabled PCs, can now transmit ECG data from any of our digital Holter recorders for centralised analysis.

At the remote site the user is prompted to connect the recorder and then enter the patient demographic information together with any diary entries.

Data, including patient demographics, are automatically transferred to the PC from our state-of-the-art Aria and Lifecard CF digital recorders.
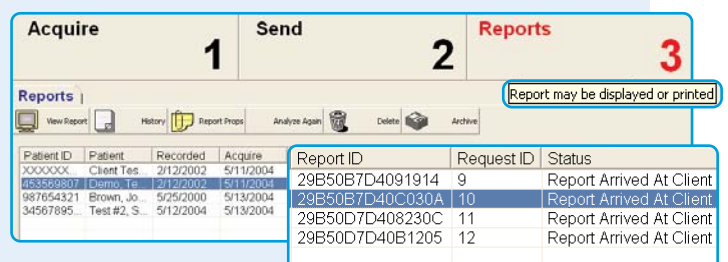
This information, together with the **raw ECG, is then encrypted and sent securely over the Internet** to the Symphonet Server.

Each remote site has a unique identification number. Every recording downloaded is also allocated an identification number.
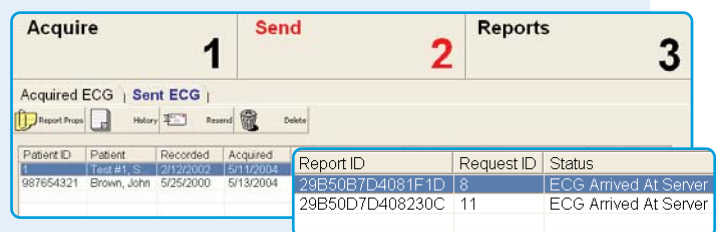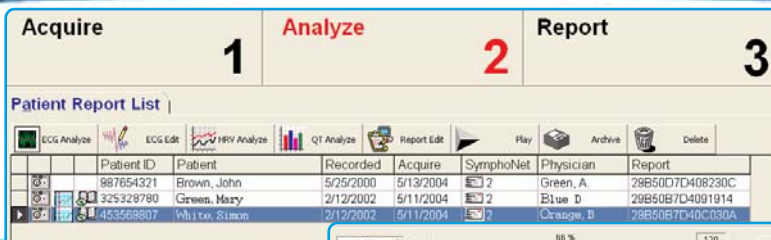

Together this ensures that the recording is tracked through the system and final reports returned to the correct location.

Reports, returned to the remote site in **standard PDF format**, are both compact and simple to view on any PC.
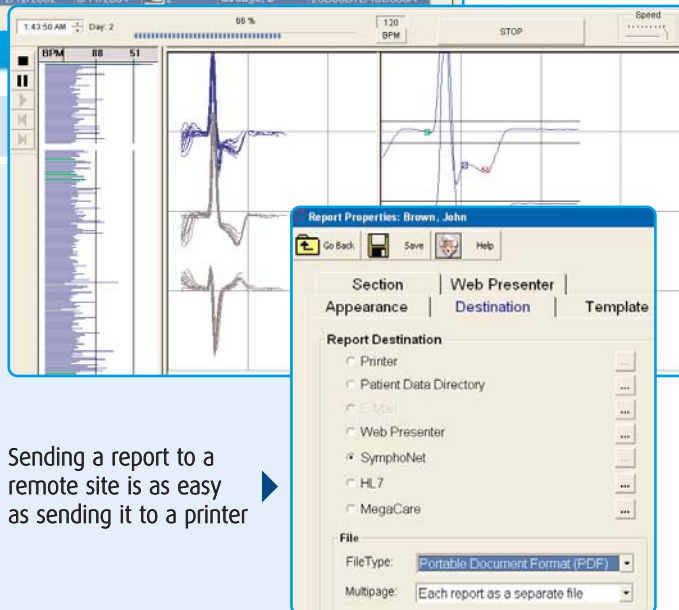
Acquire	1	Analyze	2	Report	3

Patient Report List |

| | ECG Analyze | ECG Edit | HRV Analyze | QT Analyze | Report Edit | Play | Archive | Delete |

Patient ID	Patient	Recorded	Acquire	SymphoNet	Physician	Report
987654321	Brown, John	5/25/2000	5/13/2004	2	Green, A.	29B50D7D408230C
325328780	Green, Mary	2/12/2002	5/11/2004	2	Blue D	29B50B7D4091914
453568807	White, Simon	2/12/2002	5/11/2004	2	Orange, B	28B50B7D40C030A

Centralised Analysis & Report Generation

ECG data received by the Symphonet Server is **automatically passed into the Impresario patient database for analysis**. The patient database can be shared between a number of Impresario scanners to allow high throughput.

When loaded into Impresario both the **demographic information and diary entries are loaded at the same time**. Upon completion of the analysis, the operator can send the report back to the remote site directly or can store the report into the **Web Presenter for retrieval using a web browser**.

Sending a report to a remote site is as easy as sending it to a printer ▶

Report Properties: Brown, John

Go Back | Save | Help

Section | Web Presenter
Appearance | Destination | Template

Report Destination
- Printer
- Patient Data Directory
- E-Mail
- Web Presenter
- SymphoNet
- HL7
- MegaCare

File
FileType: Portable Document Format (PDF)
Multipage: Each report as a separate file

Optimised IT solutions for high and low volume Holter traffic

There is no limit to the number of remote stations that can be set-up to send information to the Symphonet Server.
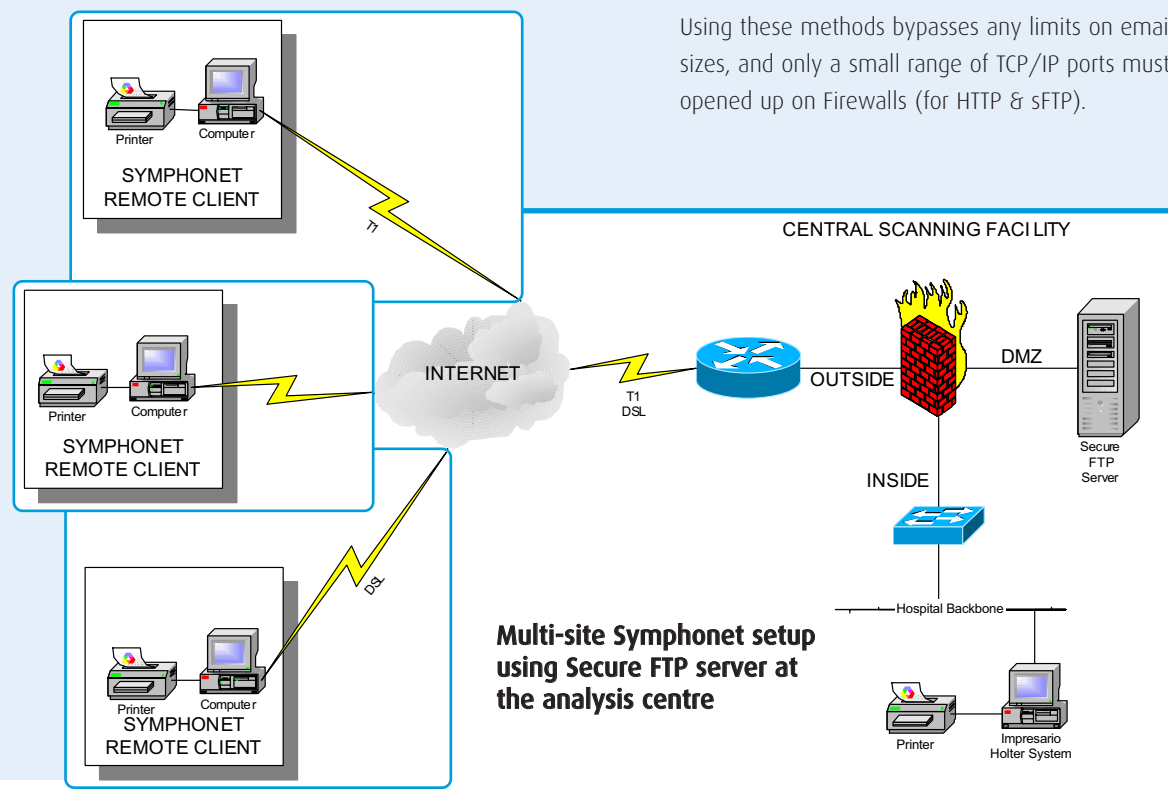
The operator at the remote client site is automatically informed when a report has been returned and can then view, download, print or archive the report.

All that is required is Internet access using a facility's network access or any ISP.

The transmission of data between the client and the server uses one of 2 methods:

• **Secure FTP** encrypts all data and writes to a shared area on an FTP server. Once data has been read it is automatically deleted from the FTP server.

• **Secure HTTP** using a third-party file transfer service. Both ECG and report data are encrypted prior to transmission.

Using these methods bypasses any limits on email message sizes, and only a small range of TCP/IP ports must be opened up on Firewalls (for HTTP & sFTP).

Printer | Computer
SYMPHONET REMOTE CLIENT

T1

Printer | Computer
SYMPHONET REMOTE CLIENT

INTERNET

CENTRAL SCANNING FACILITY

T1 DSL | OUTSIDE | DMZ

INSIDE

Secure FTP Server

DSL

Printer | Computer
SYMPHONET REMOTE CLIENT

Multi-site Symphonet setup using Secure FTP server at the analysis centre

Hospital Backbone

Printer | Impresario Holter System