SPACELABS
HEALTHCARE

CARDIOLOGY AND REMOTE MONITORING
ARRHYTHMIA DIAGNOSTICS
Pathfinder SL®

Speed
Accuracy
Control

Comprehensive exploration

Pathfinder SL represents the evolution of over 50 years of technology, design, algorithm development and experience in the analysis of ambulatory ECG recordings. Our experience has taught us that our customers need speed, accuracy and control, with a high degree of visibility and confidence in the analysis and reporting process.

Pathfinder SL enhances and converges the best features and capabilities of a range of products, including our legacy Holter systems, into one seamless analysis solution to enable the comprehensive exploration of a patient's cardiac condition.

List of compatible recorders: Spacelabs Eclipse Pro, Eclipse Mini, Lifecard CF, Lifecard 12, and Evo recorders.

Powerful and accurate

Advanced algorithms and versatile tools allow you to quickly and easily analyze large amounts of ECG data and derive meaningful interpretation to support your screening and diagnostic decision process.

Pathfinder SL's unique dual screen analysis system with modular analysis packages allows you to opt for the right solution to manage your current analysis needs. The modular analysis packages provide you the flexibility to continue adding increasing sophistication based on your requirements.

Clean simple ECG recordings can be quickly analyzed and reports generated within minutes.

Pathfinder SL also works in tandem with Lifescreen Pro, Spacelabs' event screening software. This enables you to quickly triage recordings in Lifescreen Pro and to select specific sections to import into Pathfinder if more complex analysis is required.

Pathfinder SL's powerful algorithm is designed to quickly analyze hundreds of thousands of beats in even complex, noisy or unstable recordings. The analysis provides the clinician with comprehensive insight into ECG events and morphologies as well as providing beat counts, beat labeling, ST segment, Heart Rate Variability, Atrial Fibrillation, and QT analysis.

Quickly analyze **hundreds of thousands of** beats.

Seamless end to end solutions

Interface

Pathfinder SL's interface provides a simple and flexible workflow that enables the user to quickly navigate to information that they need.

All screens, tables and graphs are synchronized to enable an event or beat, to be quickly evaluated across a range of different views with full zoom capabilities.

Screen icons and controls are arranged in an intuitive way to guide the user through the analysis workflow.

Multi screen

Dual screen configuration allows independent parallel views of ECG, graphs, trends or tables increasing the efficiency of use.

Click on ECG on one screen and see corresponding views or graphs on another.

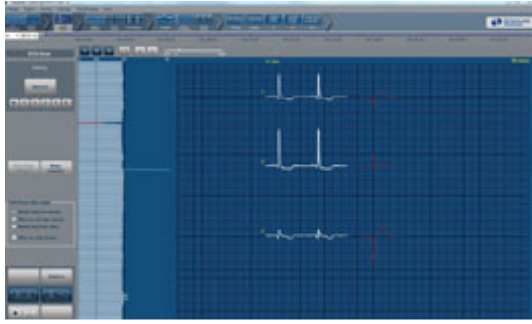Add comments or view reports on the second screen while editing on the first.

Content on the second screen is fully configurable.

Flexibility

The flexible workflow and configurability of Pathfinder SL allows the operator to control the analysis in a way that suits their preference.
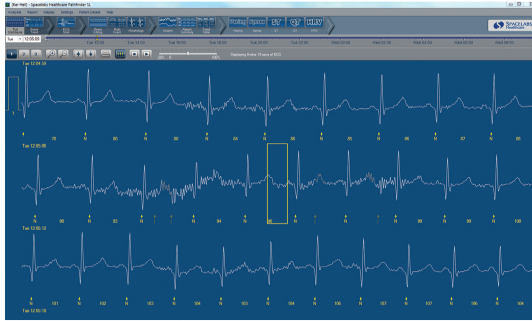
Clean simple ECG recordings can be quickly analyzed and reports generated within minutes. More complex recordings with multiple Atrial and Ventricular rhythms can be analyzed using a range of more advanced tools.

Pathfinder SL can be easily deployed across multiple networked sites using the connectivity of the Sentinel software. It also offers the possibility to customize results reports.

Guided scanning

Pathfinder SL's guided scanning mode can be easily and quickly adapted to automatically stop and guide the user to beat shape changes or events on a recording by recording basis. Tachogram, RR histogram, and arrhythmiagraph functionalities are incorporated into Pathfinder SL.
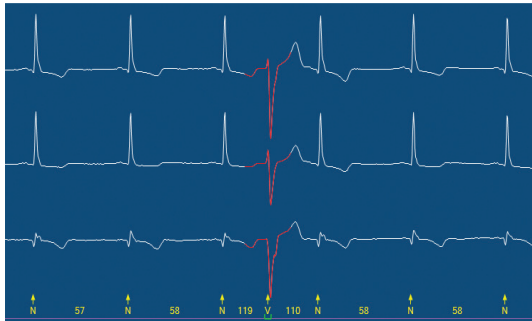
Analysis efficiency

Pathfinder SL features an advanced multi-layer analysis algorithm. The result of this is an analysis process that provides rapid and accurate results in even complex, noisy or unstable recordings.

Algorithm

Pathfinder SL has an intelligent analysis engine that analyzes the ECG waveform and beat shapes. Accuracy is further enhanced by the addition of multiple levels of dynamic pattern matching technologies.
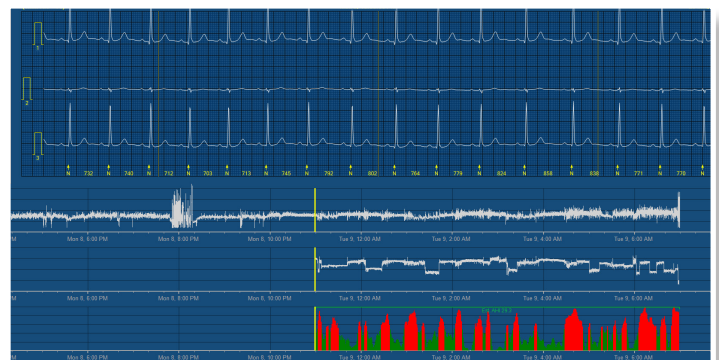
This helps the operator to identify the differences between artifact and beats even within periods of noisy ECG and highlight subtle shape changes in the ECG. Each beat type is then classified and color coded for easy identification.
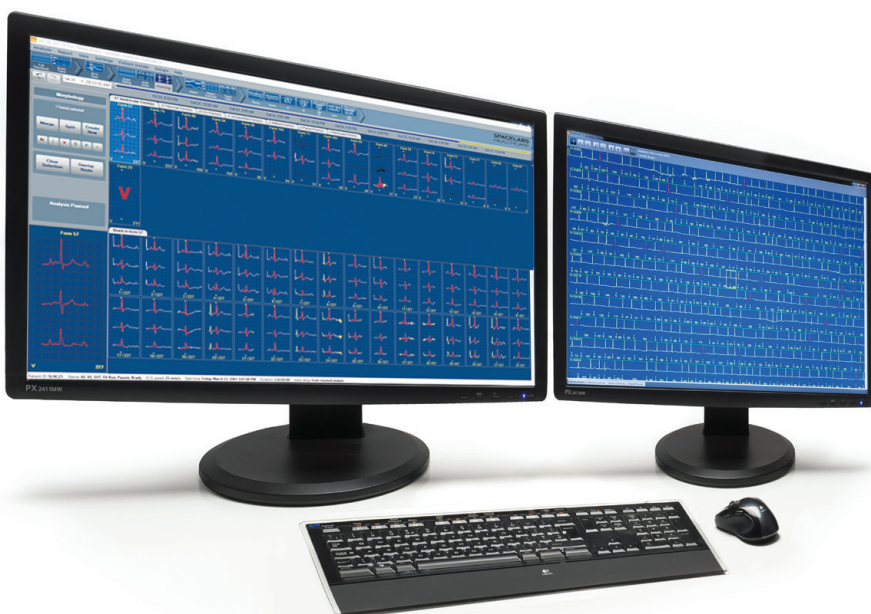
Sleep apnea

The Sleep Apnea analysis option for Pathfinder SL helps to indicate periods of apneic sleep. Changes in the RR interval, along with the power spectral frequencies of heart rate variability can be identified from respiratory waveforms of the ECG signal.

Suspect Obstructive Sleep Apnea in your patient? A cost-effective option to screen ambulatory patients

Morphology analysis

Pathfinder SL provides the user with a new level of morphology analysis and simple control within beat classifications. The morphology displays and interactive tools provide the operator with information and control to quickly group or detail individual beat morphologies as required. The Pathfinder SL algorithm allows the user to search and group or separate subtle changes in morphologies. This level of detail provides clinicians with additional information to interpret the foci of the beats and determine more specific treatment regimens or investigations. Pathfinder offers up to 14-days analysis and with Lifescreen Pro offers up to 30-day durations.

Fourteen-day analysis

Pathfinder SL offers a significant advancement in the capabilities of Holter by providing full analysis not only for the traditional 24 hours, but up to a full 14 days of continuous recording, in one analysis process and one report.

Pathfinder SL's algorithm is designed to quickly handle the hundreds of thousands of beats seen over a 14-day recording.

The clinician is provided with a comprehensive Holter report of all ECG events and morphologies over the full 14-day period.

Pathfinder SL not only provides 14-day analysis of arrhythmia events but full 14-day ST, HRV and QT analysis increasing the window of opportunity to capture and quantify significant events.

ST analysis

Fourteen day ST segment analysis including action replay and measurement point adjustments.

12-Lead Holter ST analysis including lead selection and color mapping of elevation / depression deviations.

12-Lead analysis

Selectable leads for analysis.

12-Lead ECG snapshot at any period.

Full Glasgow algorithm 12-Lead ECG interpretation on 12-Lead Holter ECGs.

Pacing analysis

Atrial and ventricular paced beat detection with pacing track.

Paced beat histograms, scatter plots and relationship diagrams for rapid identification of pacing function.

Pacing rate control graphs with day/night and overall comparisons.

HRV analysis

Pathfinder SL's trigger algorithm and user sensitivity controls enable the system to precisely trigger on R-waves even in the presence of noise.
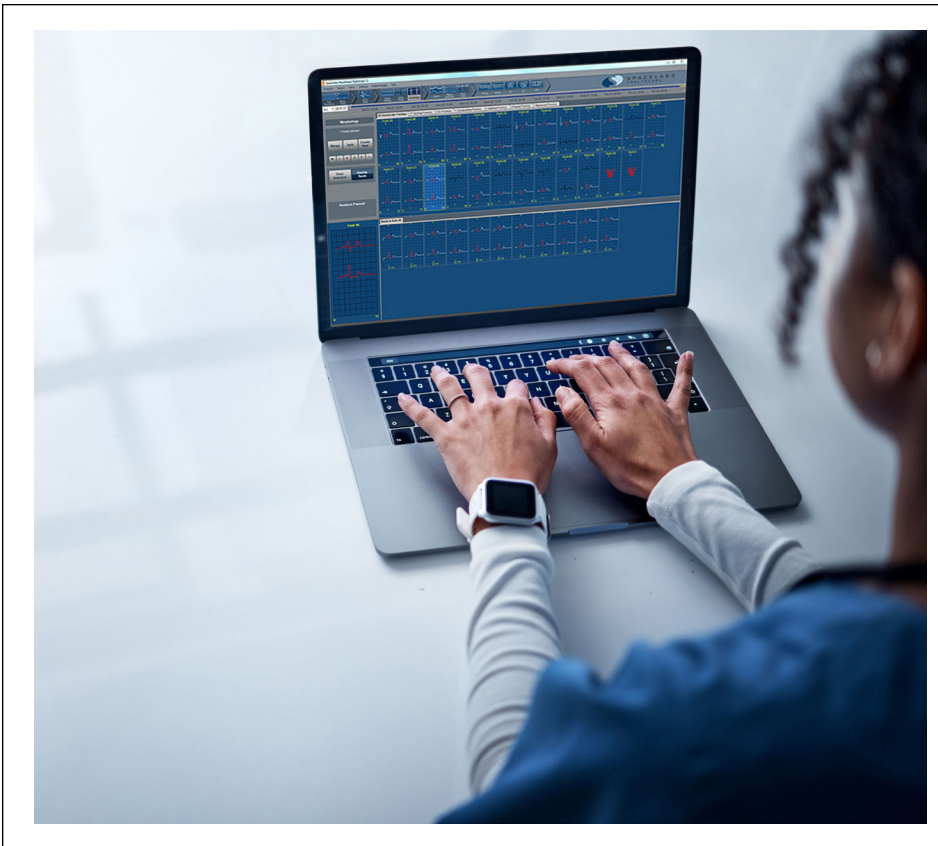
Fourteen day HRV analysis with multiple views of rates and rhythms including the arrhythmia graph are available.

QT analysis

QT trend graphs and tables.

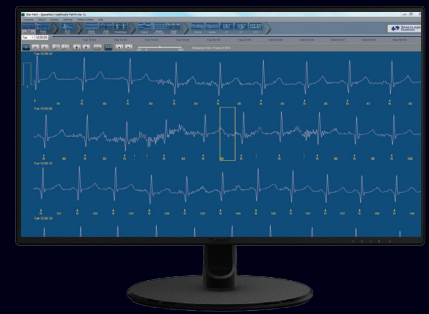QT measurement adjustment markers.

QT or QTc measurements.

Portable Pathfinder

Remote working

Keep up with your Holter analysis while working from home using a dedicated installation of Pathfinder SL supplied on a laptop PC. Continue to diagnose your patients quickly and efficiently while removing the need to be on site.

Developed with the analysis backlog in mind, Portable Pathfinder allows physiologists and technicians to work effectively from home, avoiding the need to attend the department while providing timely results back to patients to ensure they are treated as quickly as possible.

Running as a local client application, Portable Pathfinder allows fast, efficient user interaction with high volumes of ECG waveform data. After analysis is complete, connectivity back to the hospital department enables the clinician to upload the results and link in to the hospital's EMR.

A quick look at Pathfinder

Pathfinder SL's powerful algorithm is designed to quickly analyze hundreds of thousands of beats in even complex, noisy or unstable recordings. Pathfinder is designed to provide accurate analysis on a wide demographic, both adult and pediatric. Our algorithms are continuously developed and enhanced to improve the analysis available for our customers. The analysis provides the clinician with comprehensive insight into ECG events and morphologies as well as providing beat counts, beat labeling, ST segment, Heart Rate Variability, and QT analysis.

- Beat Morphology Analysis
- Beat Shape Learning
- Dynamic Artifact Rejection
- Dynamic Pattern Matching Algorithm
- Multi Channel Analysis
- Prospective and Real Time Re-analysis
- Trigger and Noise Sensitivity Controls

At Spacelabs, everything starts with a mission.

The greatest advances in healthcare have taken place because somebody, somewhere was on a mission. Ours began decades ago in the early days of the space program when our founders joined with high-performing teams of NASA scientists and engineers to develop the first cardiac monitoring systems for astronauts. Then as now, there are no limits to what people can achieve when working together.

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