IMAGING ANALYSIS

LVivo TOOLBOX

Quick.
Accurate.
Reproducible.

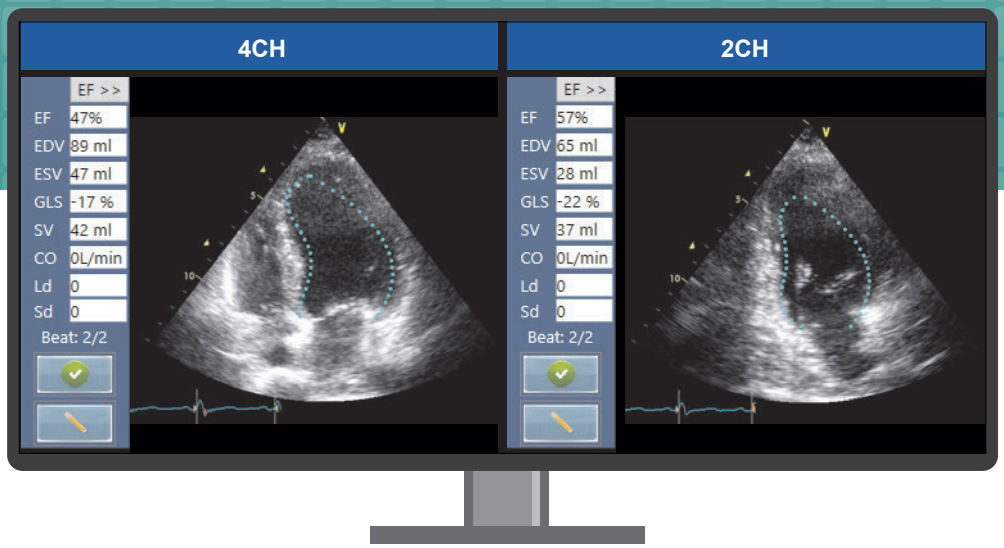
The LVivo TOOLBOX brings a new era of automation and accuracy to the analysis of echo clips.

LVivo tools allow the user to shorten examination time while preserving the high quality of the clinical evaluation, in a click of a button.

LVivo tools, can be integrated into any Healthcare IT system (PACS) and enable the user to evaluate echo clips easily, quickly and accurately. LVivo provides fully automated qualitative and quantitative values of heart analysis presented intuitively, improve workflow and reporting.

LVivo EF

LVivo EF brings a new level of accuracy and consistency to LV function evaluation by automating the calculation of Ejection Fraction (EF).
LVivo EF is a fully automated tool that uses fast image processing and pattern recognition algorithms to analyze echo examinations. By eliminating the need for statistical modeling and subjective user inputs, LVivoEF results are fully reproducible. LVivo EF automatically detects and tracks the LV border in each frame of the cardiac cycle. LVivo EF calculates LV volumes and accurately identifies EDV, ESV, EF and GLS of every recorded beat in the echo clips.



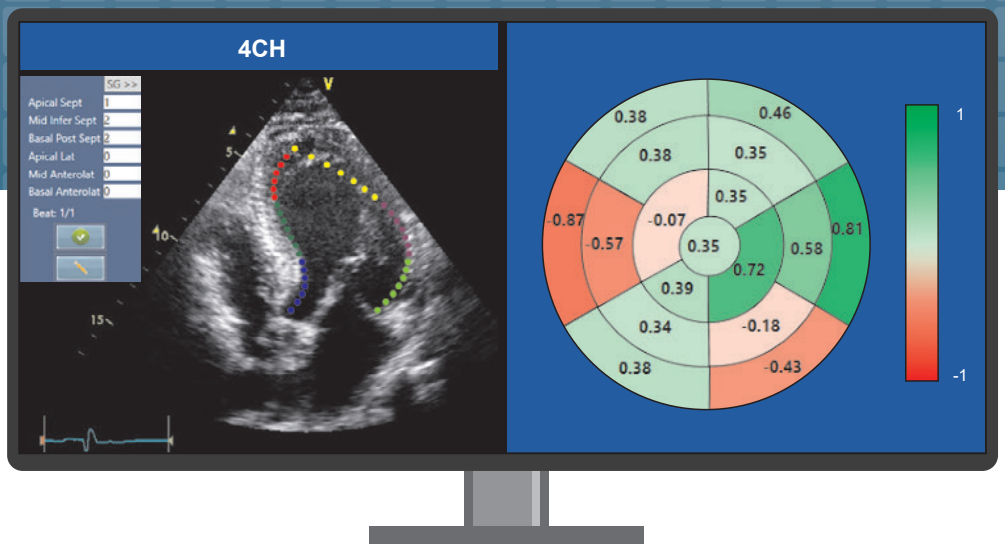
- Fully automated
- Full evaluation in a few seconds
- Multiple beat analysis
- Automated ED and ES selection for each cycle
- Automated heart rate estimation – no ECG required
- Bypasses the manual user input
- Single plane or Biplane evaluation
- Border correction and recalculation
- Supports DICOM and mp4 digital data format
- Supports low frame rate
- Simple integration
- Requires low memory and processing power
- Supports DICOM SR
- Reliable and reproducible
- FDA Cleared and CE Marked

DIA
IMAGING ANALYSIS

LVivo SG

LVivo SG automates the evaluation of segmental LV wall motion and segmental score index. The results include categorical qualitative wall motion scores for each beat, calculated using a novel algorithm that utilizes multiple motion features to classify the wall motion.

The wall motion results are summarized in a "bulls-eye" diagram (quantitatively by continuous values and via color coding according to clinically determined thresholds).



Fully automated

•

Full evaluation in a few seconds

•

Multiple beat analysis

•

Reliable and reproducible

•

Border correction and recalculation

•

Bypasses the manual user input

•

Reliable and reproducible

Supports DICOM and mp4 digital data format

•

Supports low frame rate

•

Simple integration

•

Requires low memory and processing power

•

Supports DICOM SR

•

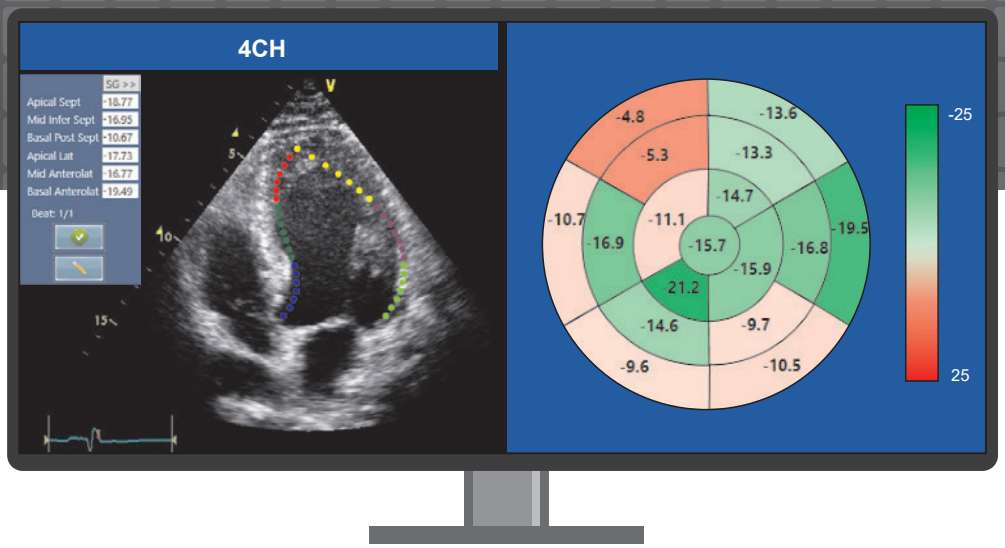
FDA Cleared and CE Marked

DIA
IMAGING ANALYSIS

LVivo Strain

LVivo Strain automates the evaluation of segmental and global LV strain calculation.

The strain results are summarized in a “bulls-eye” diagram (quantitatively and by color coding according to clinically determined thresholds).



Fully automated

•

Full evaluation in a few seconds

•

Multiple beat analysis

•

Bypasses the manual user input

•

Border correction and recalculation

•

Simple integration

Supports DICOM and mp4 digital data format

•

Supports low frame rate

•

Requires low memory and processing power

•

Supports DICOM SR

•

Reliable and reproducible

•

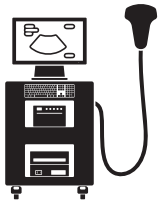
FDA Cleared and CE Marked

DIA
IMAGING ANALYSIS

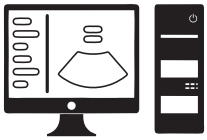
EASE YOUR WORKFLOW FOR BETTER RESULTS

SAVE TIME.

SAVE COSTS.

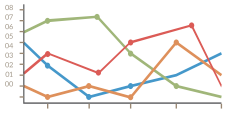


Data collection



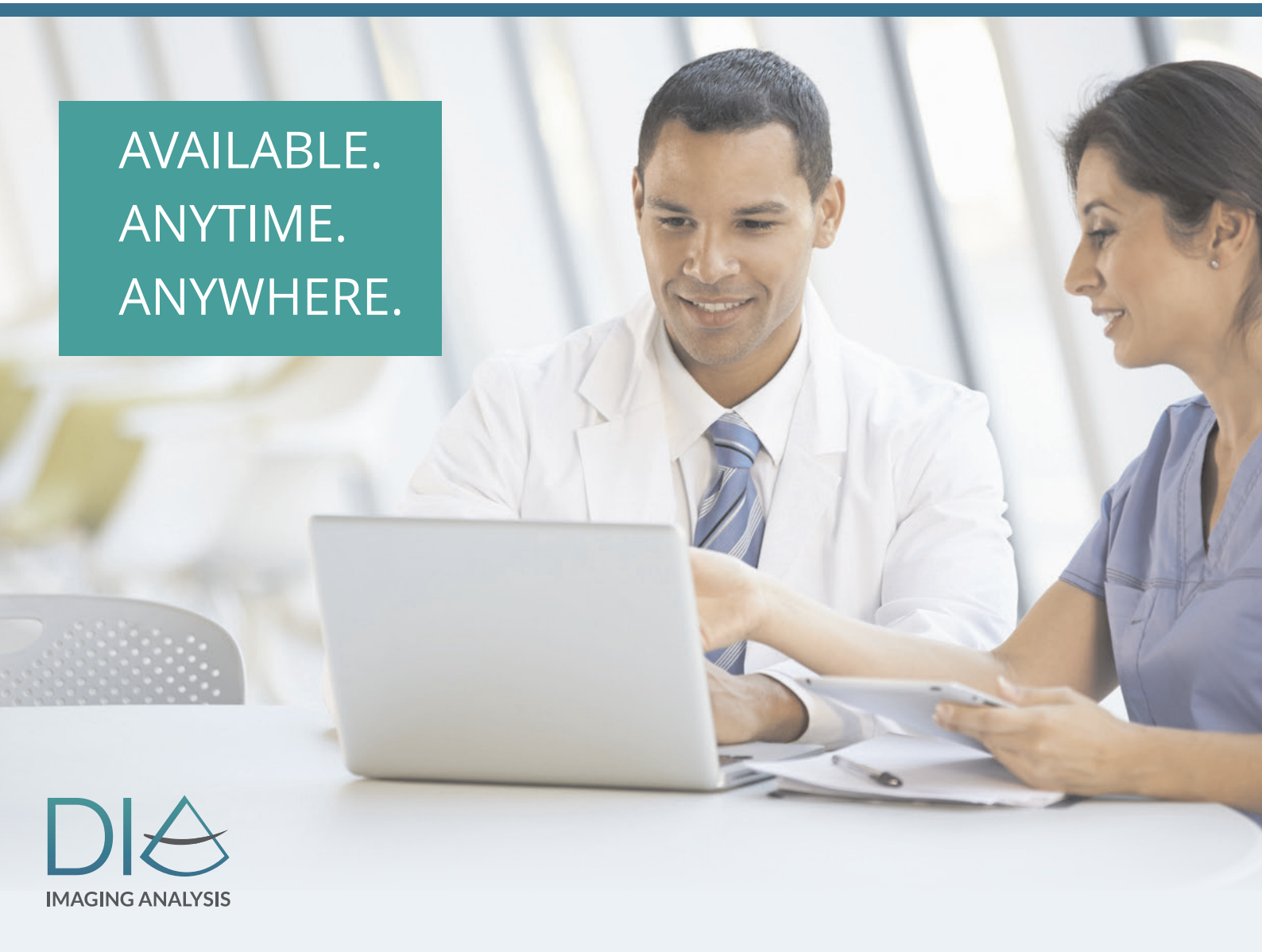
Healthcare IT workstation

LVivo Tools (SG, EF)



Graphic & numeric outputs

DICOM SR data transfer



AVAILABLE.
ANYTIME.
ANYWHERE.

DIA
IMAGING ANALYSIS

Product information:

- Vendor independent, supports - DICOM, MP4
- Code written in C++
- Supports Windows & Linux (Android coming soon)

Integration options:

- Software API integration: LVivo's SW API enables vendors to run the algorithms and retrieve the results, as an integral part of their existing platform. The LVivo capabilities are added without altering the vendor's existing 'look & feel' or overall user experience. The API is written in C++ and is provided with the relevant libraries to meet vendor's specific needs.

- Integration using the Plug-in version: The SW is provided as a Plug-in version. LVivo's user interface is provided by DiA and will be activated by a dedicated button embedded within the vendor's system.

Product features:

	Features	View analyze
LVivo EF	EF • EDV • ESV • SV • CO • GLS	4CH | 2CH
LVivo SG	Segmental wall motion analysis • Qualitative and quantitative results	4CH | 3CH | 2CH
LVivo Strain	Segmental strain analysis • Qualititative and quantitative results	4CH | 3CH | 2CH

Minimal system requirements:

Operating system
Windows XP, Vista,7,8,10
and Linux
(Android coming soon)

Processor requirements
i3 12ms/frame
i5 10 ms/frame

Memory requirements
2G RAM.
SW memory ~ 30MB + clips size

Automatic tools for stronger capabilities

DiA Imaging Analysis Ltd. is an image processing software company that develops tools for automating the evaluation of echocardiographic images. DiA's innovative image processing technology is based on a platform of proprietary algorithms that enable automatic detection of the heart's ventricle wall borders, and accurate quantitative assessment of the heart's dynamic performance. LVivo enables the evaluation of echo images to be fully automated. This is a revolutionary step that makes the process faster and easier than today's subjective manual and semi-automatic static evaluation methodologies.

DIA
IMAGING ANALYSIS

www.dia-analysis.com
HQ: DiA Imaging Analysis Ltd. 77 HaEnergia Street, Beer Sheva, Israel, +972 777 648 318
US office: 3620 oxford Avenue, Suite 4B, New York City, NY 10463, +1 917 969 1460
info@dia-analysis.com

© DiA Imaging Analysis Ltd. 2017