

# InvivoSciences<sup>®</sup>, Inc.

Discovery with a Human Touch

# iVSurfer™: Automated Analysis of Data with Waves

## **Overview**

**iVSurfer™** is a state of the art computational analyzer and compiler for periodic data of cardiac action potentials, calcium transients, and force of contraction gathered using a fluorescent plate reader. This software is a perfect solution for performing consistent high-throughput analysis of large data collected using multi-well plates (support up to 384-well format). Profiles of waves are analyzed individually and as their ensemble averages to calculate 24 available parameters. Displaying analysis of each well, users can monitor its progress in real time. Analysis parameters can be optimized to improve its performance.

## Sample Screenshots

Data input type	Type well numbers separated by space to analyze		_
Tab delimited text Select plots to display		Townoutline 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 10 19 20 21 22 23 24 A C C C C C C C C C C C C C C C C C C C	
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1 <u>2</u> 1 v	Select methods to correct data		
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V normalized	Filter only to find baseline		1
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Preview	Immature cells/sloped resetting potential	0°666666666666666666666666666666666666	
Select calculations to output	Select files to save		
E Select All			1
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PWD from individual	Run Analysis Program 👘 Select Al W	elle After analysis is complete than Run Completion Program Twister data structure	-

#### Intuitive Graphical User Interface

#### Windows of Analysis & Ensemble Averages

## **Benefits**

- Automatically finds a starting point of each period
- Analysis is completely automated, resulting in:
  - ⇒ Consistent data between users and experiments
  - $\Rightarrow$  Increase of productivity as it is a completely hands off process
- Many user options available
  - $\Rightarrow$  Output format, statistics to compile, noise filtering
  - ⇒ Visual, textual, and numerical outputs
- Compiles and organizes data into an Excel file for future analysis
- Automatically catches and categorizes "unanalyzable" runs with cessation of beats or arrhythmia
  - $\Rightarrow$  Eliminates the unanalyzable runs from the statistics

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