For Research Use only within United States.

CASA II Clinical Sperm Motility Software

For IVOS II Clinical and CEROS II Clinical Systems (V1.13)

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Data Input

Analysis Info:	Patient ID Patient Name Ejaculate Volume (manually or by scale) Sample:Diluent
Notes:	User-defined
Data Fields:	25 User-Defined Labels/Fields

Analysis Results

Counts:	Total, Motile, Static, Progressive, Slow
Percentages:	Total, Motile, Static, Progressive, Slow (%)
Concentrations:	Total, Motile, Static, Progressive, Slow (M/ml or B/ml)
Sample:	Total, Motile, Static, Progressive, Slow (M or B)
Kinematic Values:	VAP, VCL, VSL, ALH, BCF, LIN, STR, DAP, DCL, DSL, WOB, Elongation (head shape) and Area (head size). Includes mean, standard deviations and median.
Pie Charts:	WHO 4/5 Percent of Total (motile vs. static) WHO 4/5/ Velocity Percent of Motile
WHO Standards:	WHO 4 Pass/Fail: Concentration, Motility, Progressive Velocity Distribution by WHO 4 A,B,C,D categories WHO 5 Pass/Fail: Concentration, Motility, Progressive Velocity Distribution by WHO 5 Progressive, Non-progressive, and Immotile categories
Replicate Analysis:	Automatic two sample analysis comparison Based on WHO 4 or WHO 5 results Override and lock of selected WHO variable Display of Mean, Delta Gate, Pass/Fail Result

Live Setup Configuration

Illumination:	Interactive illumination setting Histogram showing real-time feedback
Motility Setup:	Interactive sperm identification setup Automatic minimum tail brightness based on Photometer Offset Minimum head and tail brightness Minimum and maximum head size and head elongation Real-time feedback through color overlays

Quality Control

Auto Illumination:	One Shot and Auto on Field Change (IVOS II only)
Illumination Check:	Quick view to confirm illumination and focus
Illumination Status:	Acceptable / Unacceptable
Video Playback:	Color-coded labeling of motile, progressive and static cells
Static Tail Filter:	Automatic elimination of debris

Video Playback

Full Field:	Frame-by-frame playback Analysis results for selected field Turn on/off motility and morphology overlays Save TIFF image of individual frames Export fields as .mp4 files for presentation purposes only
Zoom Cell:	Frame-by-frame playback Analysis results for selected sperm Data point coordinates Cell classifications Turn on/off motility and morphology overlays Save TIFF image of individual frames Save individual cell data to ASCII (requires Edit Tracks) Save data points to ASCII file (requires Edit Tracks)

Security

HT User Groups:	Administrative or Basic user
Password Security:	Windows-based Users Unlimited User IDs and passwords
Setup Access:	Analysis Setups restricted to Administrator users only

Included Data Management Options

ASCII Export:	Transfer of summary data and/or individual track to ASCII compatible spreadsheet or database programs
ASCII Import:	Import of select sample information
Video Storage:	Ability to save video file of each field analyzed, along with sample information and analysis setup values. Recall and analyze video with saved settings or new settings Re-analyze single videos or entire analysis sets
Report Viewer:	View analysis data in report format.
Report Designer:	Report designer and manager to create unlimited professional reports from sperm analysis results. Ability to include all data (calculated and user input), images, and logo. Drag and drop design, snap-to alignment. Ability to combine motility and Dimensions II Morphology results in single report.

Optional Special Applications

IQC Module:	Internal Quality Control software to method of verifying objective calibration and monitoring quality control counts. Includes Levey-Jennings Chart and application of Westgard Rules. User-selectable time frame.
Sort:	Segments sperm into sub-populations based on kinematic and/or morphometric parameters
Edit Tracks:	Save individual track data to ASCII output plus ability to manually delete tracks from cell population
IDENT:	(IVOS II Only) Automated motility analysis of high-detritus samples using DNA-specific, fluorescent stain and integrated fluorescent illumination.
VIADENT:	(IVOS II Only) Sperm viability assessment software option. Stain sperm with non-membrane permeable DNA stain and calculate viable sperm numbers under fluorescence (requires IDENT option)

Analysis Sets: Unlimited, User-defined by administrator

Analysis Setup Parameters (Administrative Users Only)

(Setup):	Setup Name		
Analysis Limits:	Min Motility Percent	Min Progressive Percent	
	Min Total Count		
Calibration:	Objective Name		
	X-axis Magnification	Y-axis Magnification	
Camera:	Exposure (Ms)	Gain	
	Integrate Enabled	Integrate Time (Ms)	
Cell Detection:	Elongation Max (%)	Enable Advanced Tail Detection	
	Elongation Min (%)	Enable Background Subtraction	
	Head Brightness Min	Head Size Max (μm^2)	
	Head Size Min (μm^2)	Static Tail Filter	
	Tail Brightness Min	Tail Min Brightness Auto Offset	
	Tail Min Brightness Mode		
Chamber:	Capillary Correction		
	Chamber Depth (µm)		
	Chamber Type (Capillary, Drop)		
Illumination:	Illumination Primary (IVOS II only)		
	Max Photometer		
	Min Photometer		
Kinematics:	Cell Travel Max (µm)		Slow VAP (µm/s)
	Enable Motile Static Collisions Avoidance		Slow VSL (µm/s)
	Motile Cell Require Tail		Static Algorithm
	Motile Require Tails Max VSL (µm/s)		Static VAP (µm/s)
	Progressive STR (%)		Static VSL (µm/s)
	Progressive VAP (µm/s)		Static Width Multiplier
Morph:	Min Tail Length (µm)		
	Tail Confidence (%)		
Stage:	Stage Temp (°C) (IVOS II only)		
VIADENT:	VIADENT Fluorescing System		
Video Capture:	Frame Capture Speed (Hz)		
	Frame Count		

Specifications subject to change without notice.