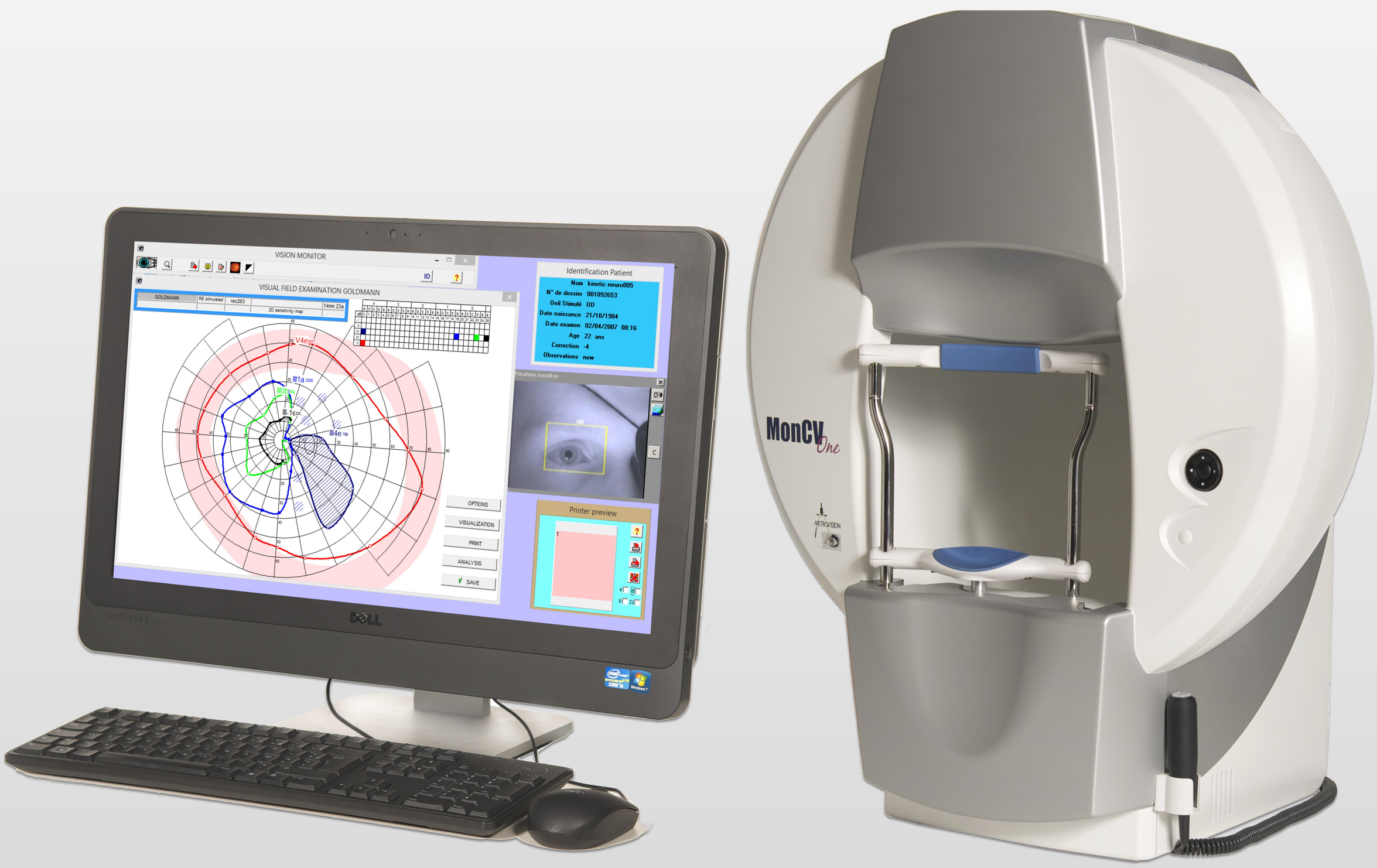
MonCV One

Standard Automated Perimetry
Goldmann Perimetry
with video imaging

All in One



Manufactured by Metrovision
ISO 13485: 2016
certified quality system

METROVISION

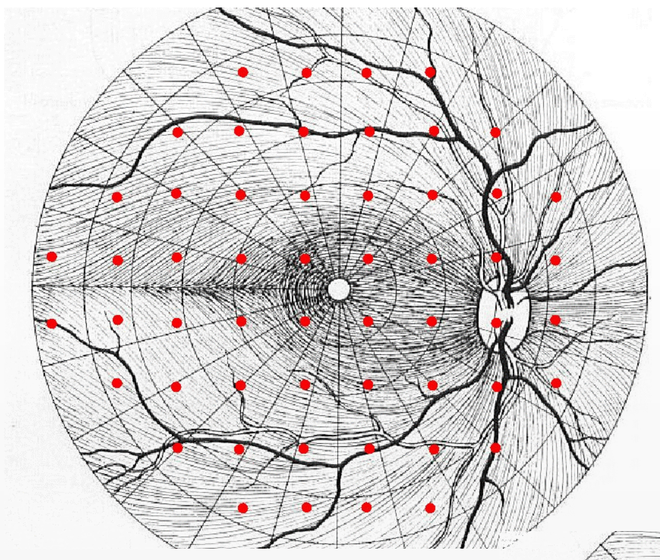
Standard Automated Perimetry

Optimized test distribution and strategy

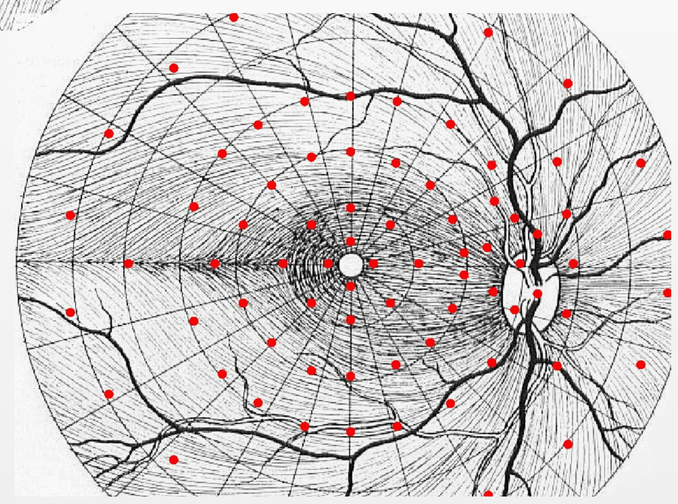
MonCV One proposes two sets of tests for static perimetry:

The **STAT** tests use a conventional distribution of test points with a uniform spacing.

The **FAST** tests (Fiber Adapted Static Tests) use an optimized distribution of test points according to the density of fibers and to the most frequent alterations of the retina and optic nerve.



STAT-24



FAST-24

Key point

- *STAT tests allow the follow-up of patients with conventional test distribution*
- *FAST tests provide more complete information in less time.*

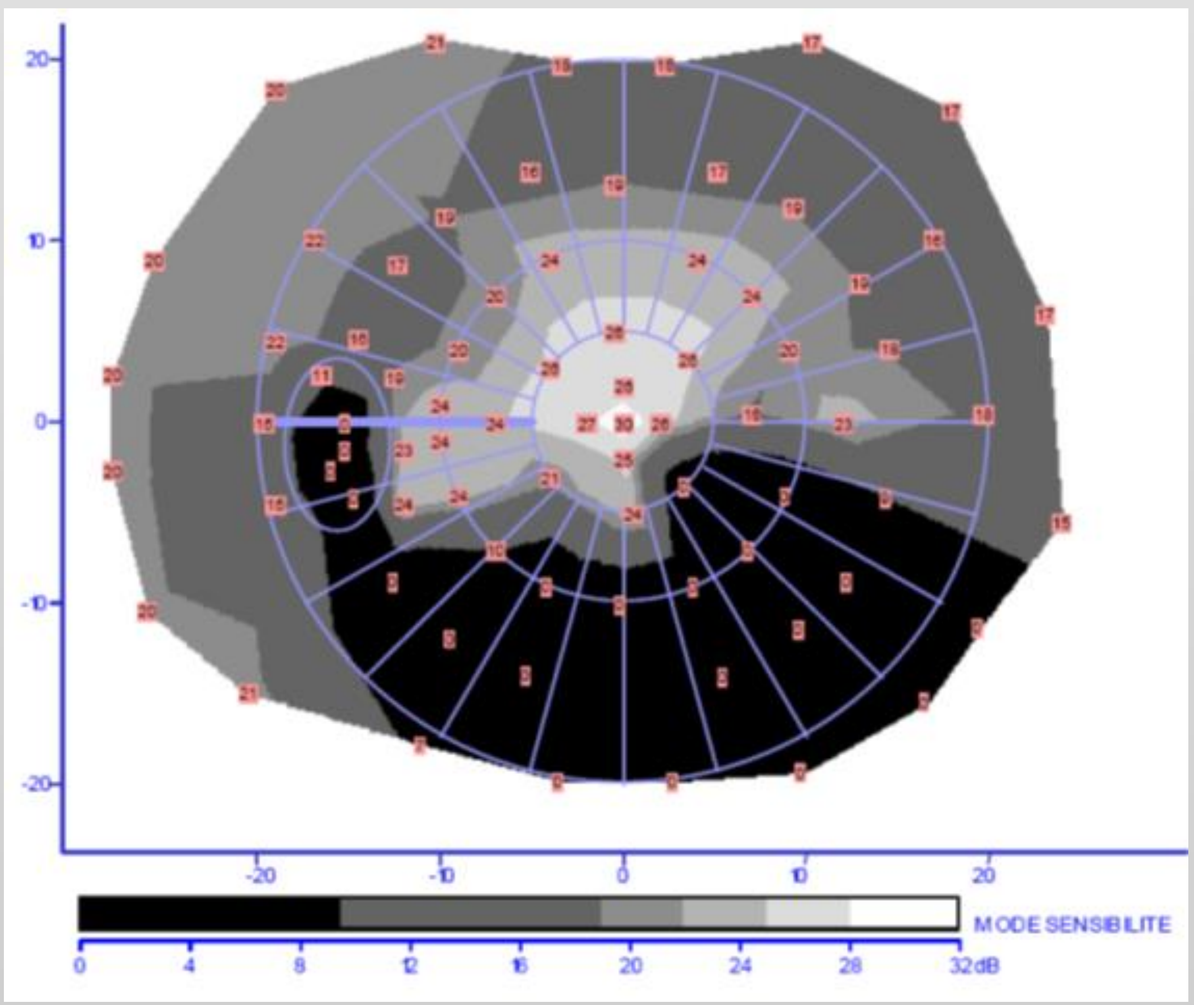
	Background (cd/m2)	Stimulus size	Eccentricity (degrees)
STAT/FAST 30	10	III	30
STAT/FAST24	10	III	24
STAT/FAST10	10	III	10
Fovea	10	III	fovea
FAST-60	10	III	60
Blue / Yellow	100	V	30

The test library includes **STAT** and **FAST** procedures covering eccentricities up to 10, 24, 30 and 60 degrees.

Tests for Blue / yellow perimetry (SWAP) are also provided in the PRO version.

Advanced graphics for an easier interpretation

The advanced graphic technology of MonCvONE allows a precise description of the scotoma shape and localization.

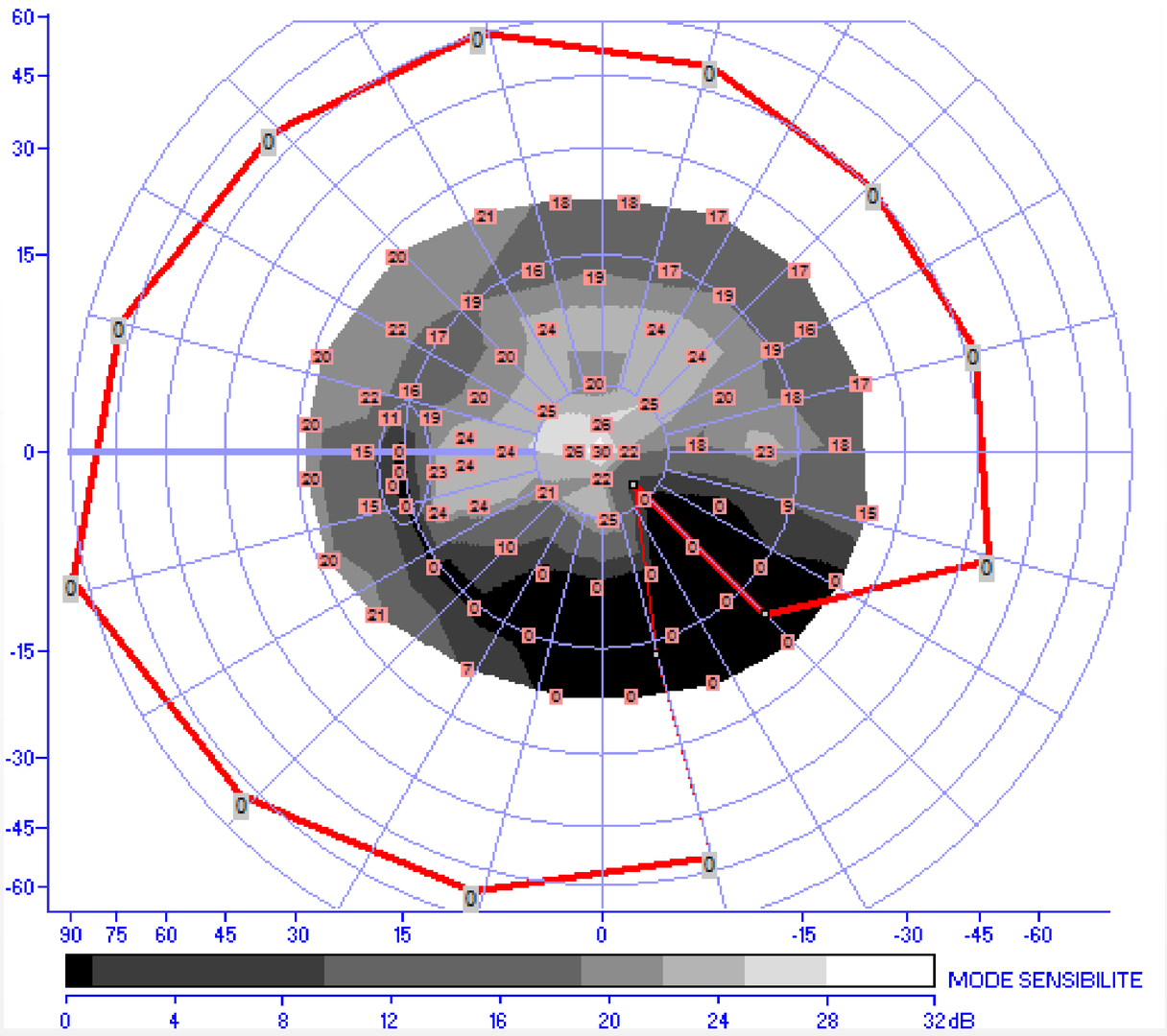


Key points

- *Accurate description of arcuate scotoma.*
- *Precise evaluation of the functional impact of deficits with test points at 2 and 5 degrees eccentricity.*

Mixed Perimetry: the combination of Kinetic and Static Perimetry

Mixed perimetry combines the evaluation of the peripheral field with kinetic tests and the evaluation of the central field with static tests.



Key points

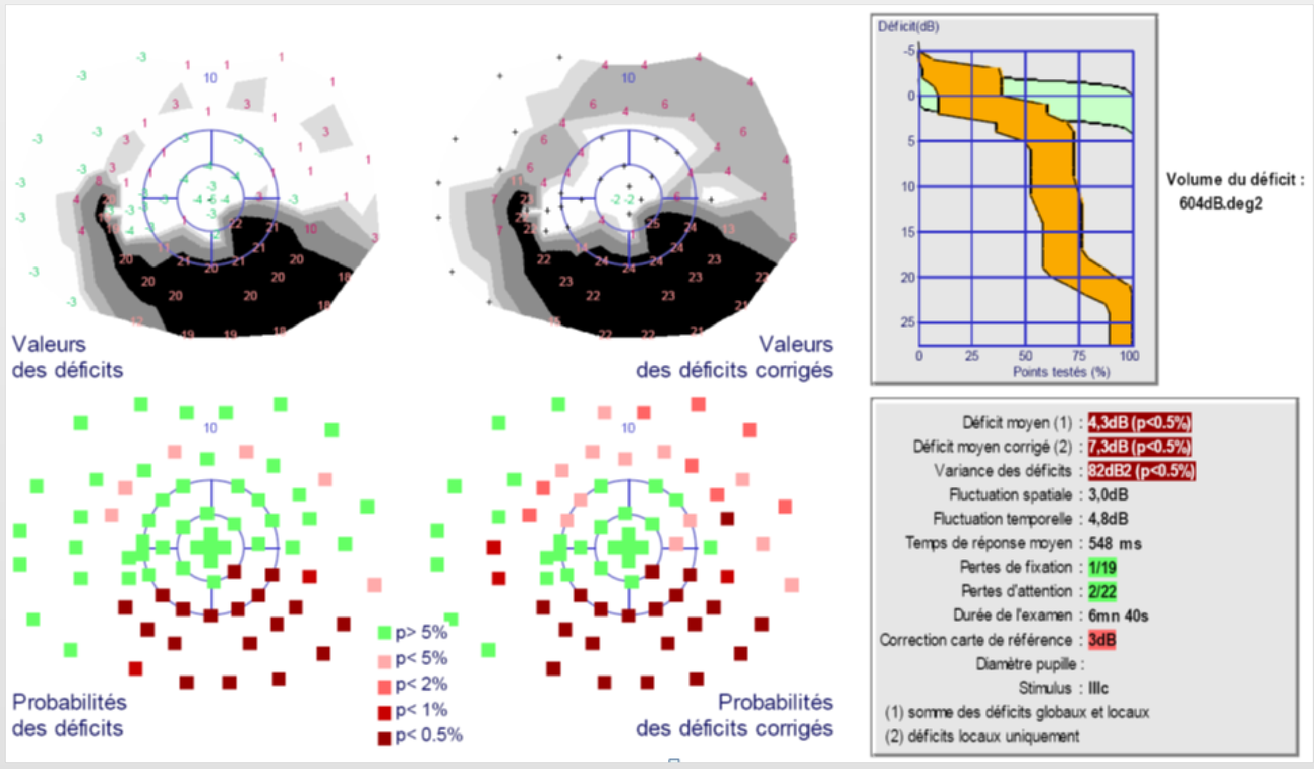
- *Mixed perimetry gives a more complete evaluation of the visual field,*
- *Mixed perimetry saves time in severely affected visual fields.*

	Background (cd/m2)	Stimulus size	Eccentricity (degrees)
MIXED-30	**10**	**III**	**Periphery +30**
MIXED-24	**10**	**III**	**Periphery +24**
MIXED-12	**10**	**III**	**Periphery + 12**

Statistical analysis

This analysis provides:

- a map of deficits relative to normal, age corrected thresholds,
- a map of relative deficits obtained after subtraction of the diffuse component,
- global indexes.

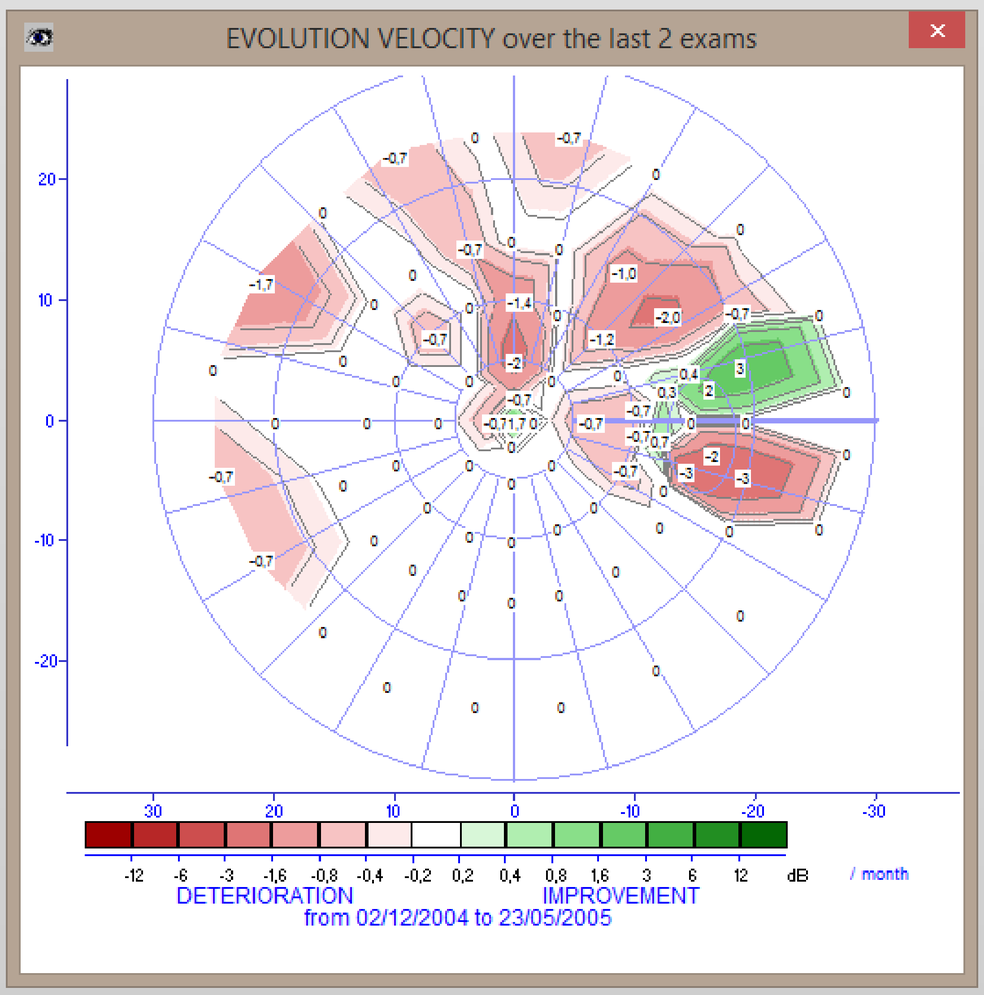


Key point

- *Comparison of the patient's result with age corrected normal data.*

Follow-up analysis

The follow-up analysis uses the set of results obtained from the patient to analyze the progression of the visual field. It includes a graph with the evolution of the mean deficit and a map indicating where visual field changes are occurring



Key point

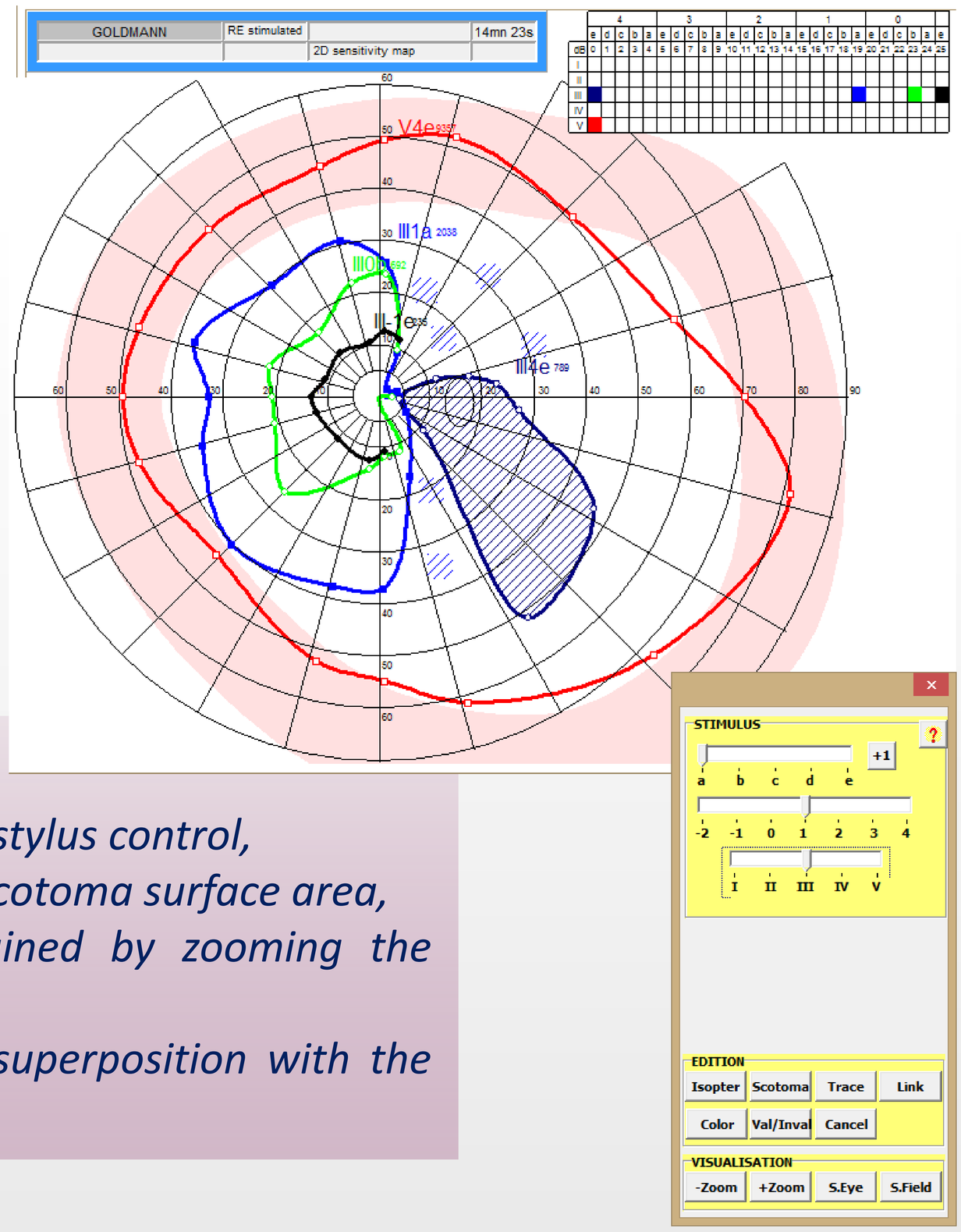
- *The map of evolution indicates which parts of the field are changing and so allows to determine if the evolution is due to glaucoma, cataract or ARMD.*

Goldmann Perimetry of the 21st century

Manual Perimetry

Manual perimetry is needed in a number of clinical situations:

- for patients who are not able to perform automated perimetry,
- for the control of abnormal results obtained with automated perimetry,
- for the evaluation of acute visual field loss.



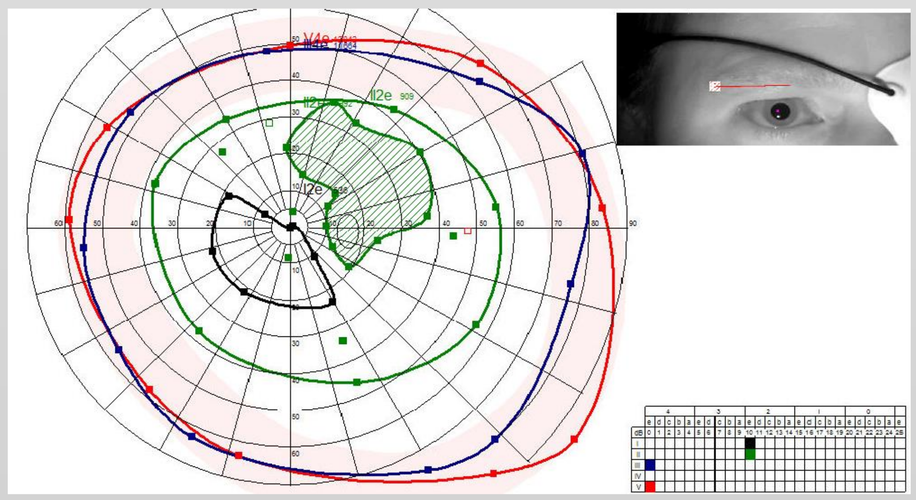
Key points

- *Interactive perimetry with direct mouse or stylus control,*
- *Automated quantification of isopters and scotoma surface area,*
- *Detailed evaluation of the macula obtained by zooming the central field,*
- *Fundus oriented perimetry performed in superposition with the image of the eye fundus.*

Video imaging

MonCV *One* eye tracker presents unique features:

- A high resolution camera with a large viewing field suitable for binocular exams and for testing difficult subjects (infants…),
- An automated measurement of the pupil size,
- The rejection of responses when the patient looses fixation or blinks,
- The possibility of video recording (with compression) during the entire exam and playback afterwards (*).



Key points

- *The camera with the binocular viewing field*
- *The inclusion of extracts of the video in the exam report for documenting problems such as ptosis, nystagmus, lens misalignment…(*)*

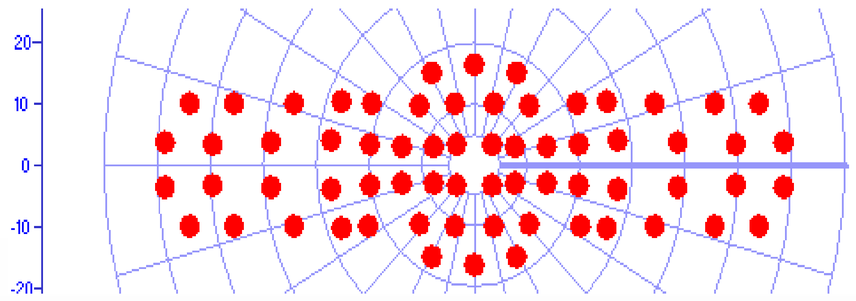
* Patent pending

Tests of visual aptitudes

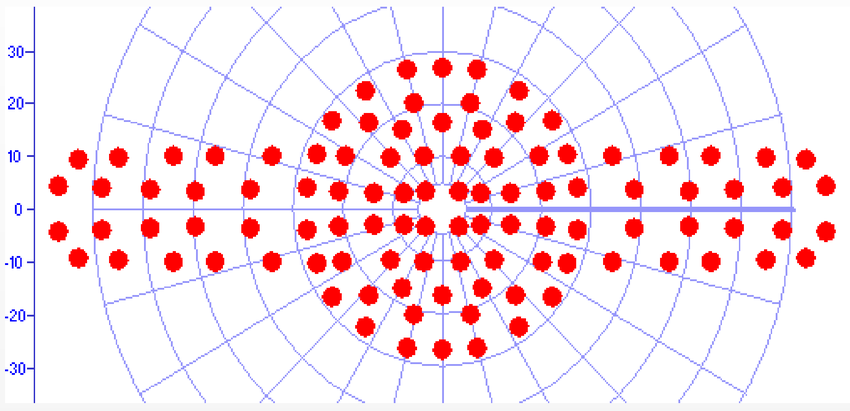
Driver visual field test

Key points

- *Complies with European Directive 2009/113/EC*
- *Truly binocular test*
- *Truly binocular fixation control*
- *Relative (12 dB) and absolute deficits for group 1 and group 2 drivers*



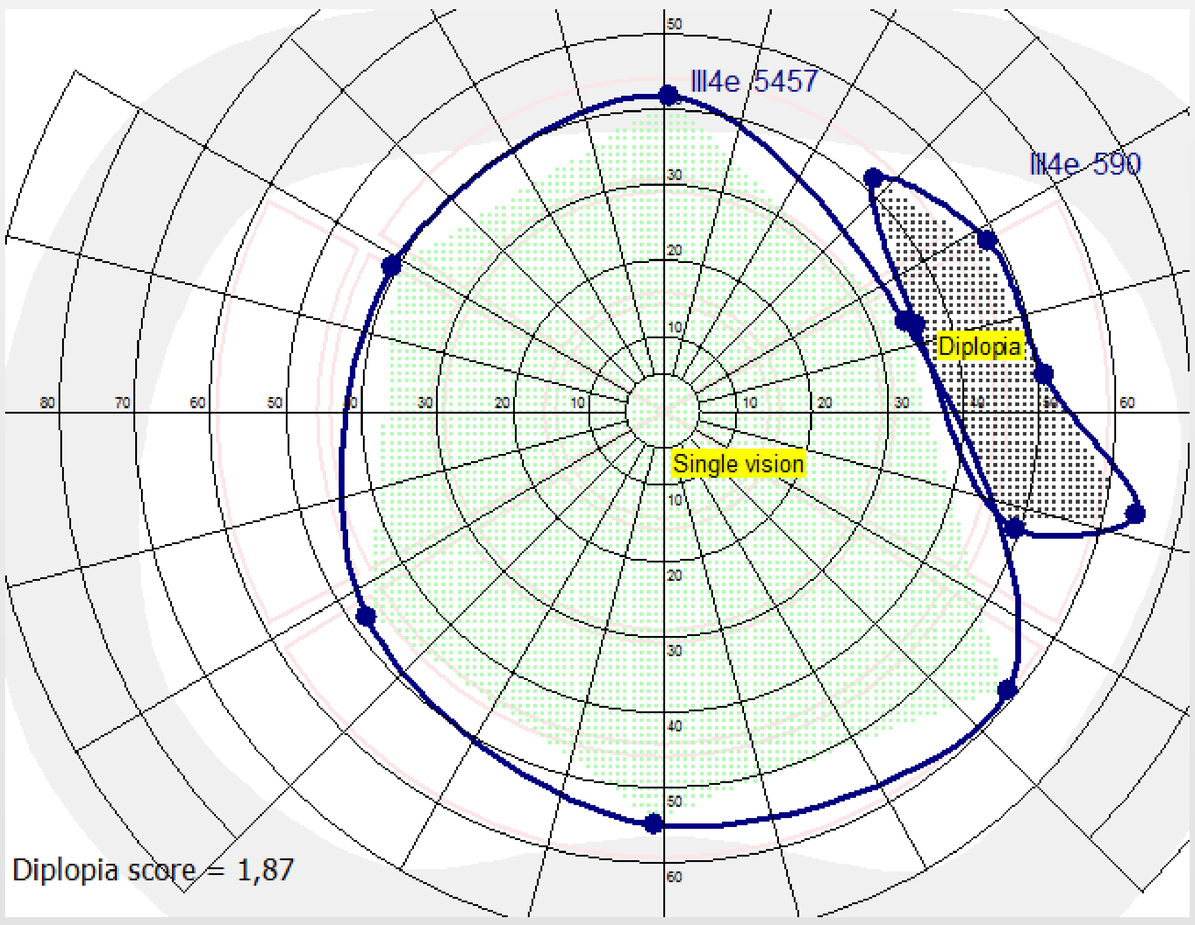
Test for group 1



Test for group 2

Diplopia visual field test

Quantification of the binocular field of single vision (or fusion field)



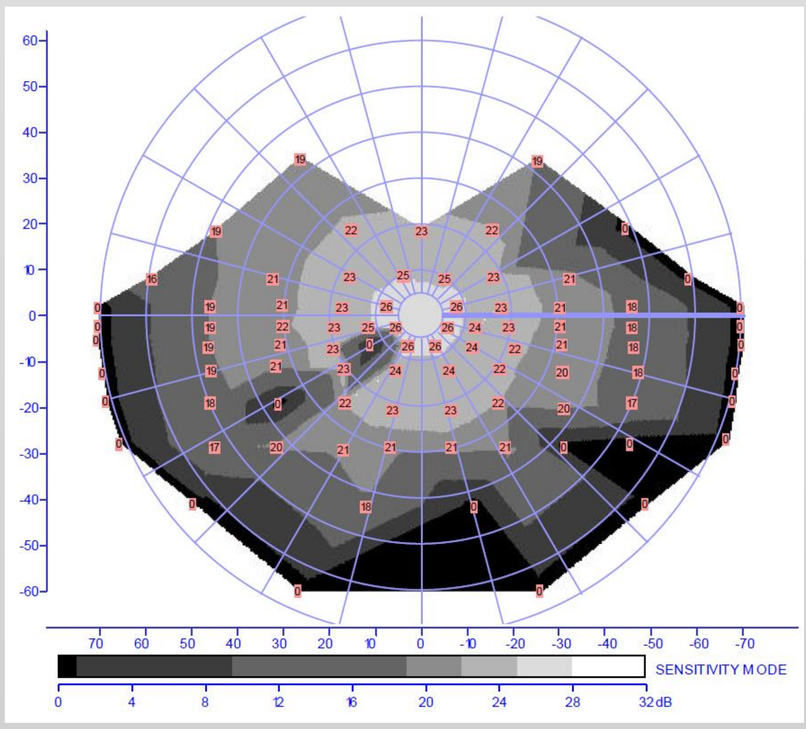
Key points

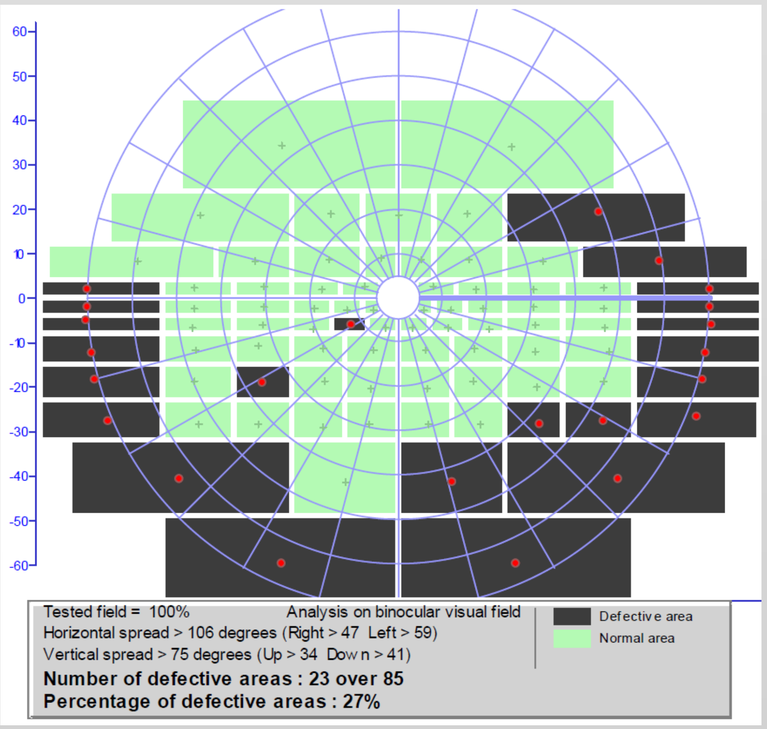
- *Binocular video control*
- *Automated functional score*

Esterman visual field test

Key points

- *Binocular test*
- *Binocular fixation control*
- *85 static tests III4e*
- *automated or manual "Goldmann" mode*
- *Automated Esterman score*





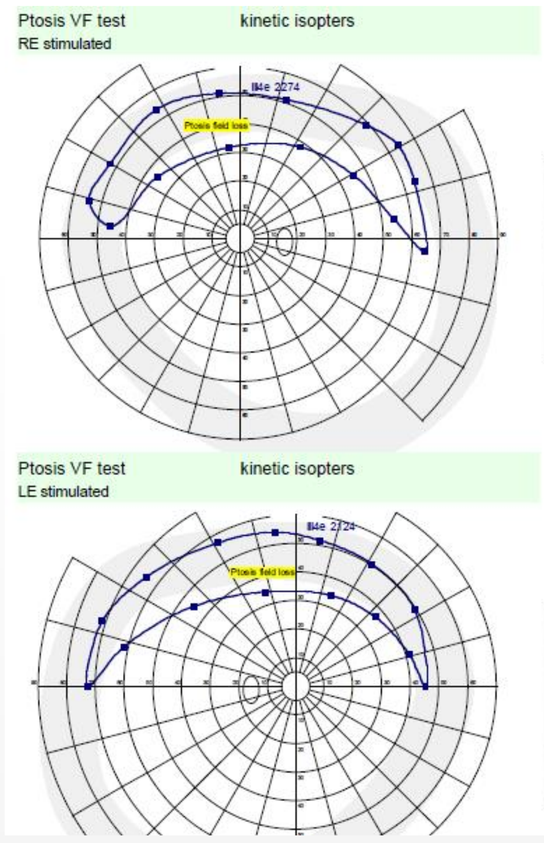
Applications

Evaluation of ptosis

Documentation of the medical necessity for blepharoplasty.

Key points

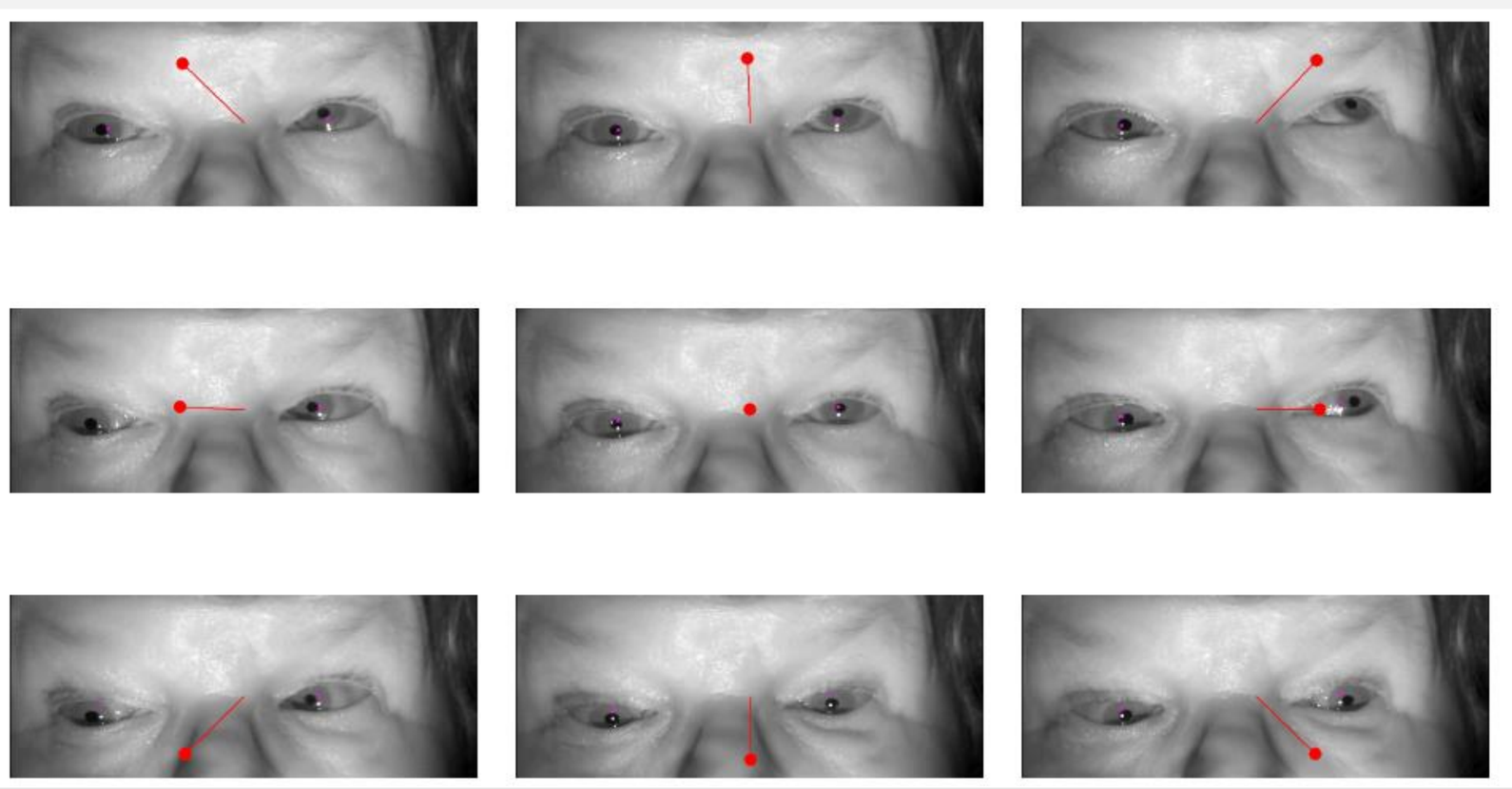
- *Quantification of the functional visual field alteration,*
- *Report combining the visual field and video snapshots.*



Cardinal positions of gaze

Key points

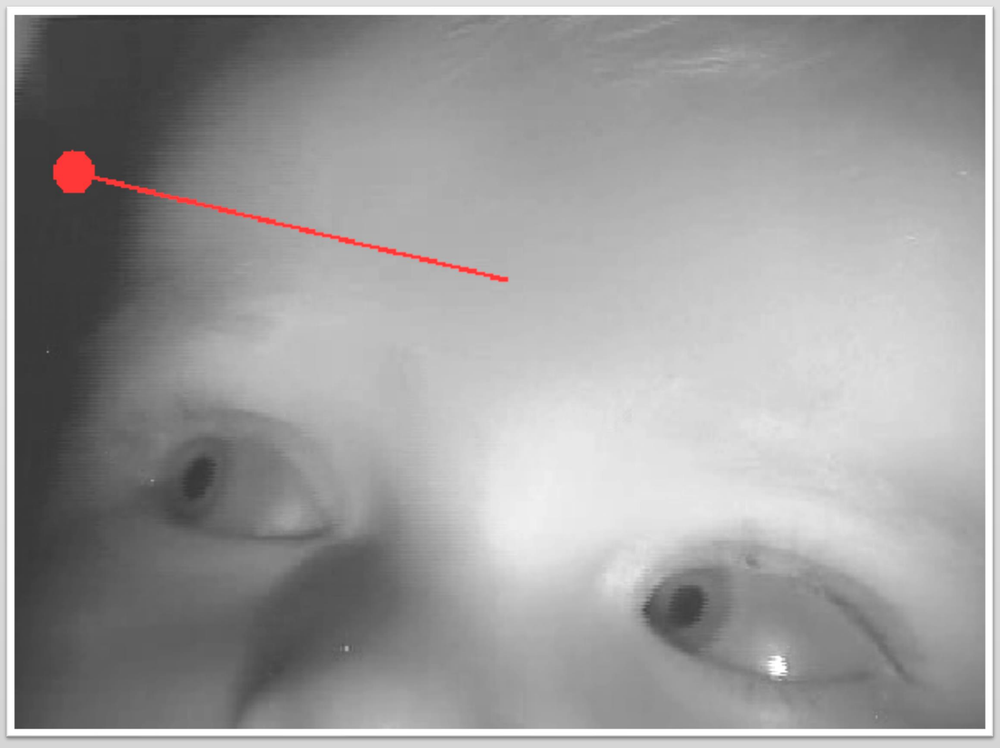
- *Binocular video recording and playback*
- *Can be performed at different eccentricities and different levels of illumination.*



Attraction Perimetry

One unique feature of MonCV *One* is its ability to perform perimetry exams on infants (below the age of 7) an other non cooperative subjects.

The operator has a direct control of the stimulus presentation and can record the infant's eye movement responses thanks to the high quality of the video.



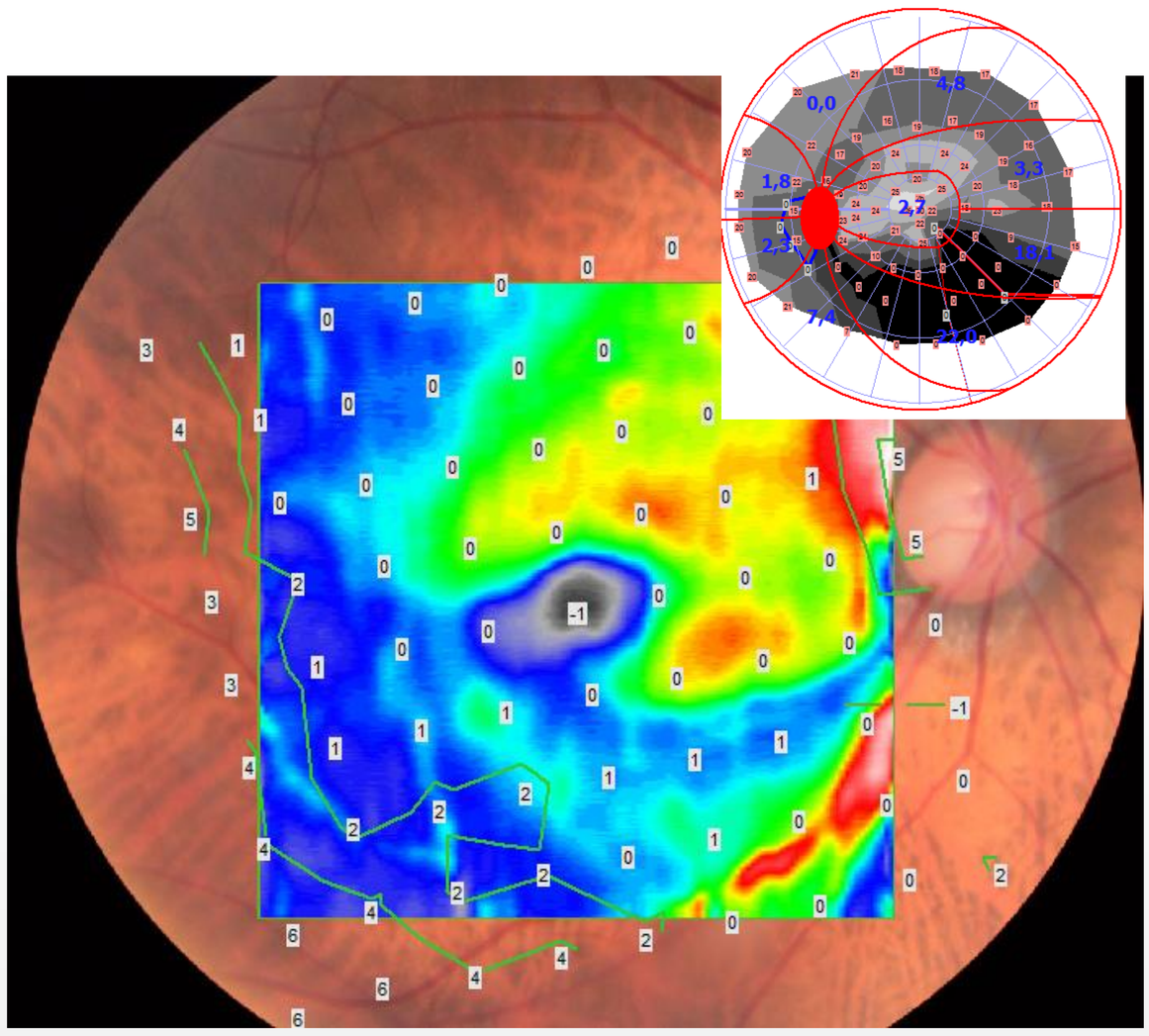
Key points

- *High quality video allows the detection of infants' responses.*
- *Video playback synchronized with the test presentations allows the off line analysis of results and their control (*).*

* Patent pending

Function-Structure comparison

This analysis allows the comparison of the visual field with the image of the eye fundus or OCT. The image is imported under a standard format (jpeg, bmp,…) and is automatically scaled to the visual field after clicking on the positions of the papilla and fovea.

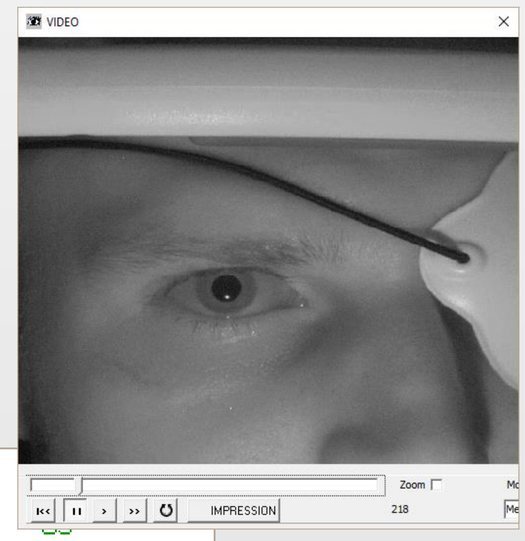


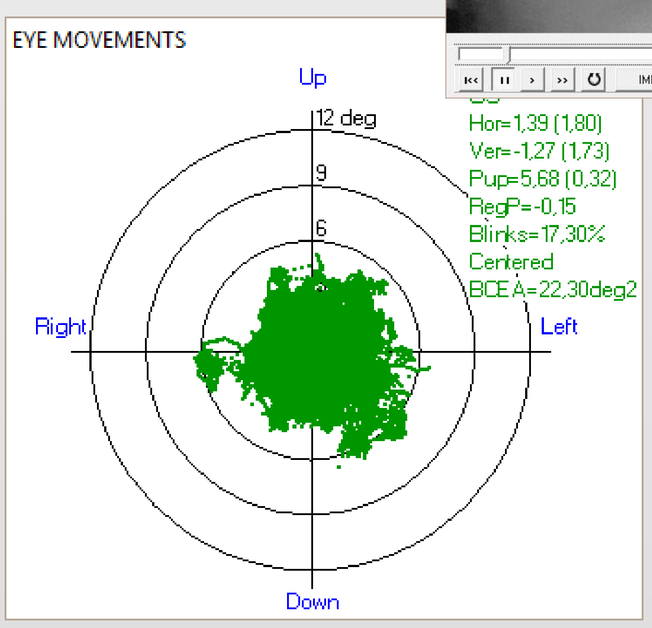
Key point

- *This analysis indicates if the functional deficit is related to the structural alteration,*
- *In manual mode, the exam can be realized on top of the eye fundus image.*

Video and eye movement recording

Video and eye movements can be recorded throughout the entire exam allowing the generation of a report on the stability and deviation of the patient's fixation





Key points

- *Measurement of the stability of fixation bivariate contour ellipse area (BCEA);*
- *pupil size average and fluctuations;*
- *blinks frequency.*

Examinations and options

Vision psychophysic exams

• Visual field exam (automated static perimetry)	PVM-CV
• Visual field PRO exam (Goldmann, Blue/Yellow perimetry)	PVM-CW
• Video and eye movement recording (during visual field exams)	PVM-CF

Options

• Electric table	HVM-TABLE
• Set of large field refractive lenses	HVM-OPTI

Specifications

- Hemispherical cupola with 30 cm radius
- Test projection up to 105 degrees of eccentricity (temporal) 65 degrees (nasal), 60 degrees (up), 70 degrees (down)
- **Background**
  Default value = 10 cd/m2 for white
  100 cd/m2 for yellow
- **Test color**
  white, blue, red
- **Test sizes**
  Goldmann I, II, III, IV, V
- **Dimensions:** footprint=62x35cm height=74cm
- **Weight:** 23 kg (without PC, printer and electric table)
- **Power supply:** 110-240V, 3.6-1.8A , 50-60Hz

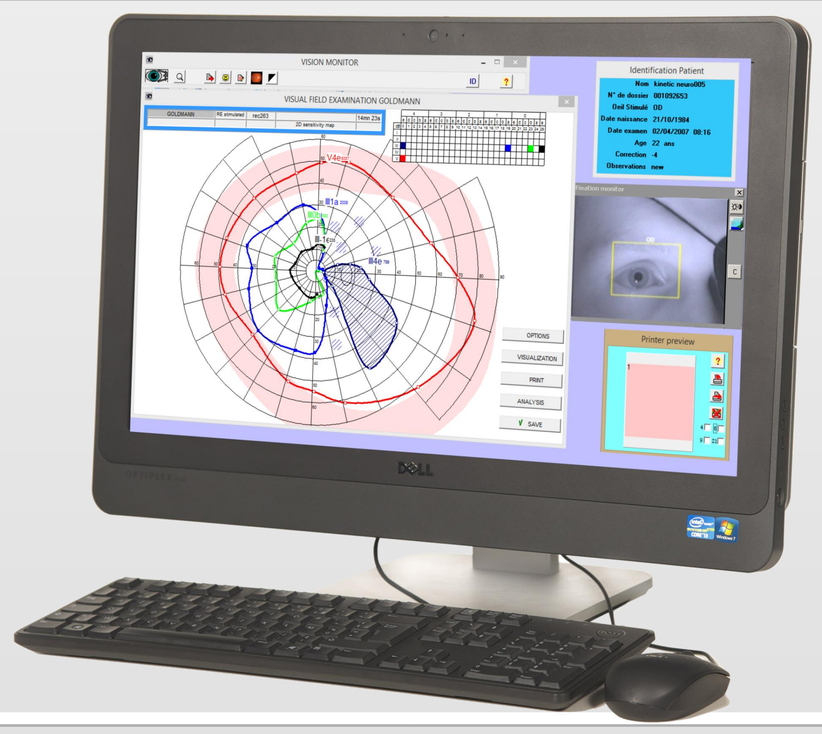
Key points

- *Ultra wide field perimetry (105 degrees temporal)*
- *Scotopic and mesopic perimetry (option).*

Computer networking

MonCV *One* is controlled from a standard PC or tablet operating under Windows.

It can be connected to a computer network allowing the access to results from a work station and their exportation under **PDF** or **DICOM** formats.

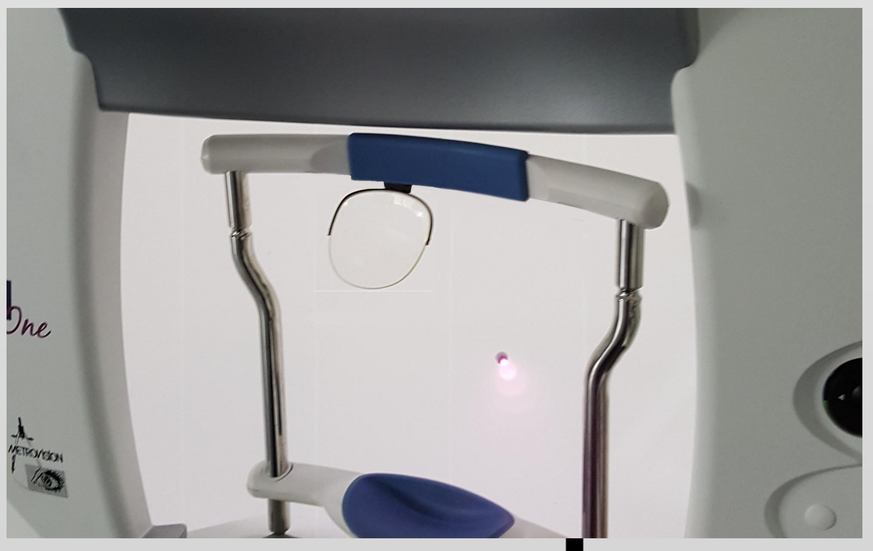


Correction of refractive errors

MonCV *One* is supplied, as an option, with a set a large field lenses (55 mm in diameter) suitable also for binocular exams.

Key point

- *Large field lenses prevent peripheral field errors that result from the lens rim or lens misalignment.*



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