

HESS DIGITEST



HESS DIGITEST

DESCRIPTION

HESS DIGITEST, PROPOSES A SET OF TESTS FOR THE DIAGNOSIS OF DIPLOPY AND STRABISM, INCLUDING THE EXAMINATION OF HESS LANCASTER, DIPLOPY FIELD, BINOCULAR CAMPIMETER, WORTH TEST, AND SCHOBBER TEST, A SOFTWARE, RESIDING IN THE SYSTEM COMPUTER CONNECTED WITH A HIGH RESOLUTION MONITOR, PROPOSES THE VARIOUS TESTS WHERE THE DOCTOR AND PATIENT SHOULD INTERACT BY MEANS OF A MOUSE OR TOUCH-PAD

HESS DIGITEST

THE SMART HESS DIGITEST SYSTEM IS COMPOSED BY:



**SOFTWARE, INSTALLED ON THE COMPUTER THAT
CONTROLS THE EXAMINATION COMMANDS, THE
PROJECTION OF THE LIGHT AIM, STORES AND
PROCESSES THE ANGULAR DATA ERROR .
THE PROGRAM ALSO CREATES, A STRUCTURE FOR
THE ARCHIVING AND MANAGEMENT OF EXAM
RESULTS.**

HESS DIGITEST

COMPUTER WITH
CONTROL SW



A HIGH RESOLUTION LED MONITOR REPRESENTS
THE TESTS WHILE
THE PATIENT INTERACTS WITH
TOUCH-PAD OR MOUSE.

HESS DIGITEST

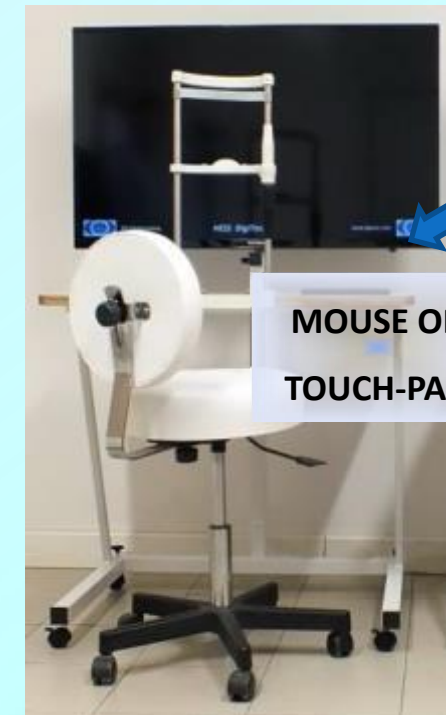
COMPUTER WITH
CONTROL SW



MONITOR HD



TABLE WITH CHIN



MOUSE OR
TOUCH-PAD

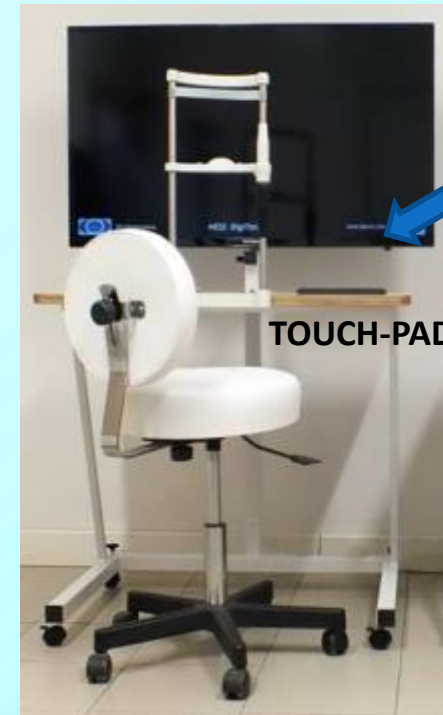
A STRUCTURE SUPPORTS THE MONITOR AND THE CHIN, FOR POSITIONING THE PATIENT IN THE CORRECT DISTANCE AND HEIGHT FROM THE MONITOR, BY MEANS OF AN ADJUSTABLE TABLE OR STOOL, A LARGE WORKING PLAN ALLOWS THE PATIENT TO USE THE MOUSE FOR THE TESTING.

HESS DIGITEST

COMPUTER WITH
CONTROL SW

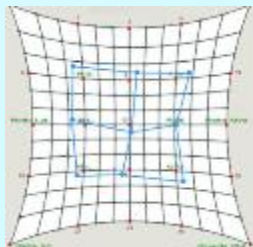


TABLE WITH CHIN



AT THE END OF THE EXAMINATION
PROCESS THE PROGRAM ACQUIRE
THE DATA AND ALLOWS THE
IMMEDIATE RELEASE OF THE RESULT.
IN THE SAME TIME STORE AND
ARCHIVE DATA IN A DATA BASE

DATA ARCHIVING

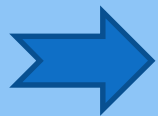


PRINT



HESS DIGITEST

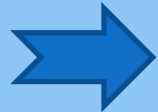
PERFORMANCES



SPEED OF TEST EXECUTION



UMAN ERROR REDUCTION



MEASUREMENT SPEED AND PRECISION



AUTOMATIC TEST ARCHIVING



HESS DIGITEST

SPEED OF TEST EXECUTION :



HESS DIGITEST, HAS AUTOMATIC TEST SEQUENCES, THAT PROCEED AUTOMATICALLY AWAY THE PATIENT PROCEEDS IN THE EXAMINATION. TESTS ARE DESIGNED TO OPTIMIZE EXECUTION TIMES AND AT THE SAME TIME TO REDUCE THE TIME OF TRANSCRIPTION OF DATA

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ERROR ELIMINATION:



THE EASE TO USE OF THE MOUSE, ALLOWS THE PEOPLE WITH PROBLEMS OF MOTILITY, TO POSITION THE LIGHT AIM CORRECTLY, ELIMINATING THE APPROXIMATION ERROR BY THE PATIENT.

SIMULTANEOUSLY REMOVES THE DOCTOR'S ERROR IN TRANSCRIPTING THE POINT POSITION ON THE PAPER FORM.

HESS DIGITEST

SPEED AND PRECISION OF TEST:



PRECISION AND SPEED OF THE MEASUREMENT:

THE EXACT DETECTION OF THE MEASUREMENT POINTS, ALLOWS TO DETERMINE WITH MAXIMUM PRECISION, THE DEGREE OF DEVIATION AND THEREFORE OF CORRECTION TO APPLY TO THE INTERESTED EYE.

FURTHERMORE THE ACCURACY, ASSOCIATED WITH THE PROCESSING SPEED, ALLOWS YOU TO OBTAIN AN IMMEDIATE RESULT, IN ADDITION RECORDS AND STORES THE RESULT IN ELECTRONIC FORMAT..

HESS DIGITEST

AUTOMATIC ARCHIVING OF TEST:



AUTOMATIC MEASUREMENT ARCHIVE:

AT THE END OF THE EXAM, THE SYSTEM GENERATES A FOLDER FOR EVERY PATIENT, WHERE STORES THE RESULTS OF THE VARIOUS EXAMS.

THE FILES CREATED ARE IN PDF FORMAT AND THEREFORE EASILY TRANSFERABLE AND INTERPRETABLE BY THE USERS OF WINDOWS, MAC, IPHONE OR ANDROID SYSTEMS

HESS DIGITEST

MAIN FEATURES:



- **MAIN FEATURES:**
- **DISTANCE FROM THE PANEL 50 Cm**
- **ACQUISITION ANGLE 40 ° (Smart) or 50 ° (Plus)**
- **CALCULATION OF THE ERROR IN ANGULAR DEGREES AND PRISMATIC DIOPTERS**
- **DATABASE FOR PATIENT MANAGEMENT**
- **IMMEDIATE PRINT OF THE EXAM**
- **PATIENT INTERACTION VIA MOUSE OR OTHER DIGITAL POINTER**

HESS DIGITEST

THE INSTRUMENT IS COMPOSED OF A PATIENT WORKSTATION MADE UP OF A TABLE PROVIDED WITH CHIN, SCREEN AND MOUSE, AND A MEDICAL WORKSTATION WITH COMPUTER AND PRINTER.



PATIENT LOCATION



DUAL COLOR LENTS



TOUCH-PAD

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THE DOCTOR MANAGES THE EXAMINATION, INTERACTING WITH THE PATIENT THROUGH THE DIGITEST SOFTWARE.

THE DOCTOR HAS THE POSSIBILITY, TO SELECT FROM THE VARIOUS TESTS AVAILABLE, THE MOST SUITABLE FOR THE PATIENT'S PATHOLOGY.

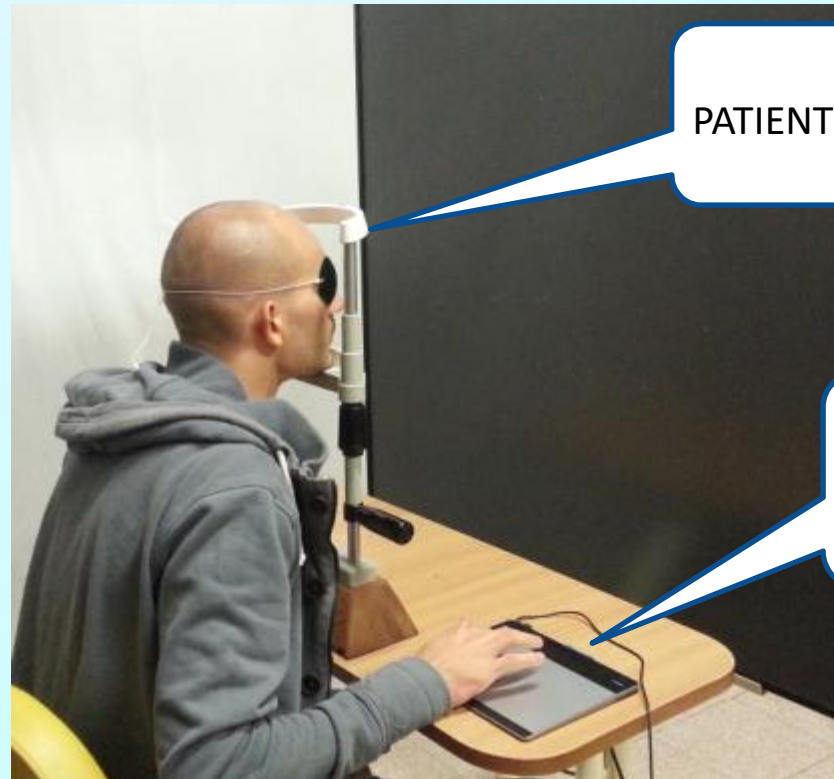
AT THE END OF THE EXAM, THE SOFTWARE COLLECTS THE RESULTS IN A DIGITAL FORM, THAT CAN BE REPAIRED, CORRECTED AND EXPORTED AT ANY TIME.

DOCTOR LOCATION

HESS DIGITEST TEST EXECUTION

THE PATIENT IS SITTING ON A HEIGHT-ADJUSTABLE STOOL, SO AS TO OBTAIN A COMFORTABLE POSTURE, WHICH DOES NOT DISTURB IT FROM THE PERFORMANCE OF THE TEST.

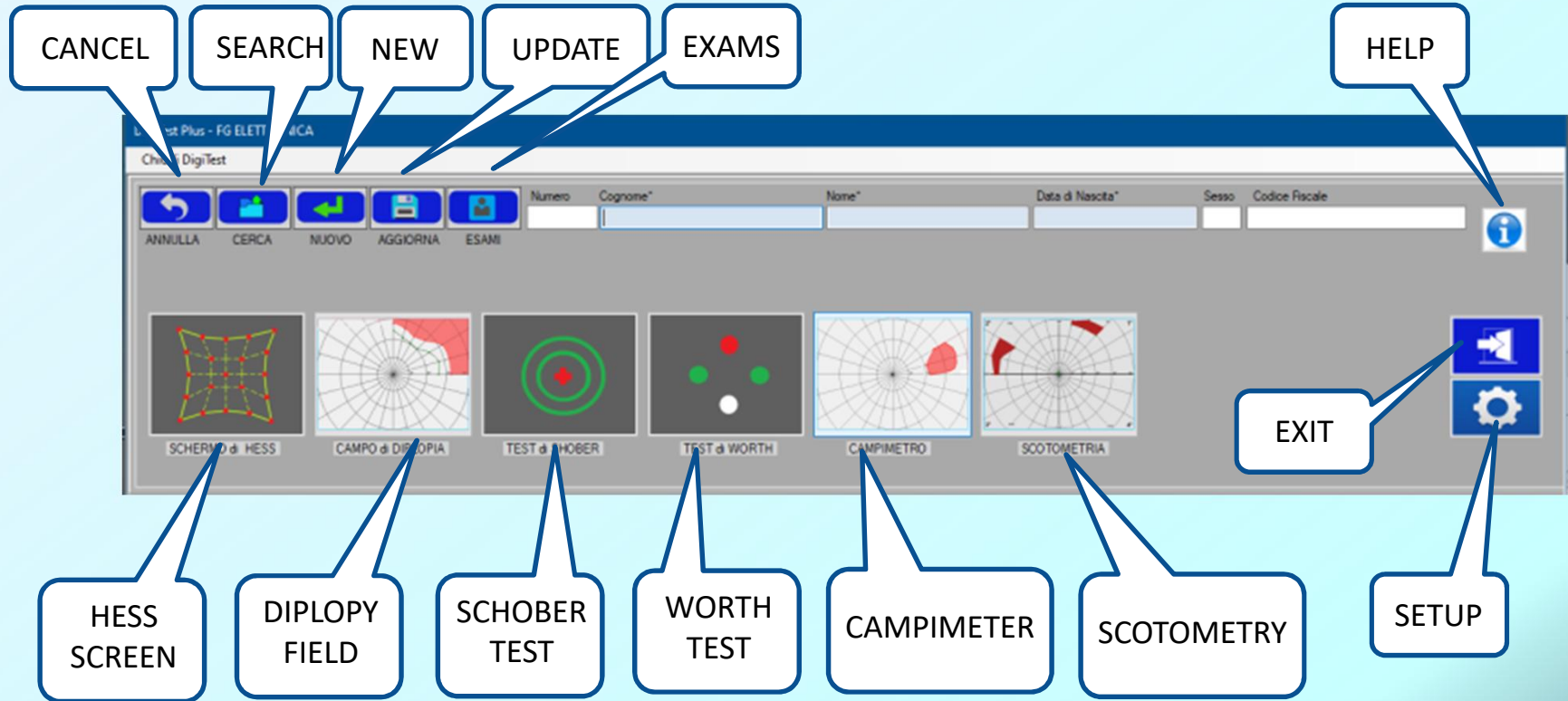
PLACE YOUR CHIN ON THE CHIN GUARD AND WEAR THE ANAGLIFIC GLASSES WITH RED-GREEN LENSES. THE DOCTOR INSTRUCTS THE PATIENT ON THE EXAMINATION, IN ORDER TO INTERACT CORRECTLY WITH THE TEST USING A MOUSE.



PATIENT SETUP

POINTING
DEVICE: MOUSE
TOUCH-PAD

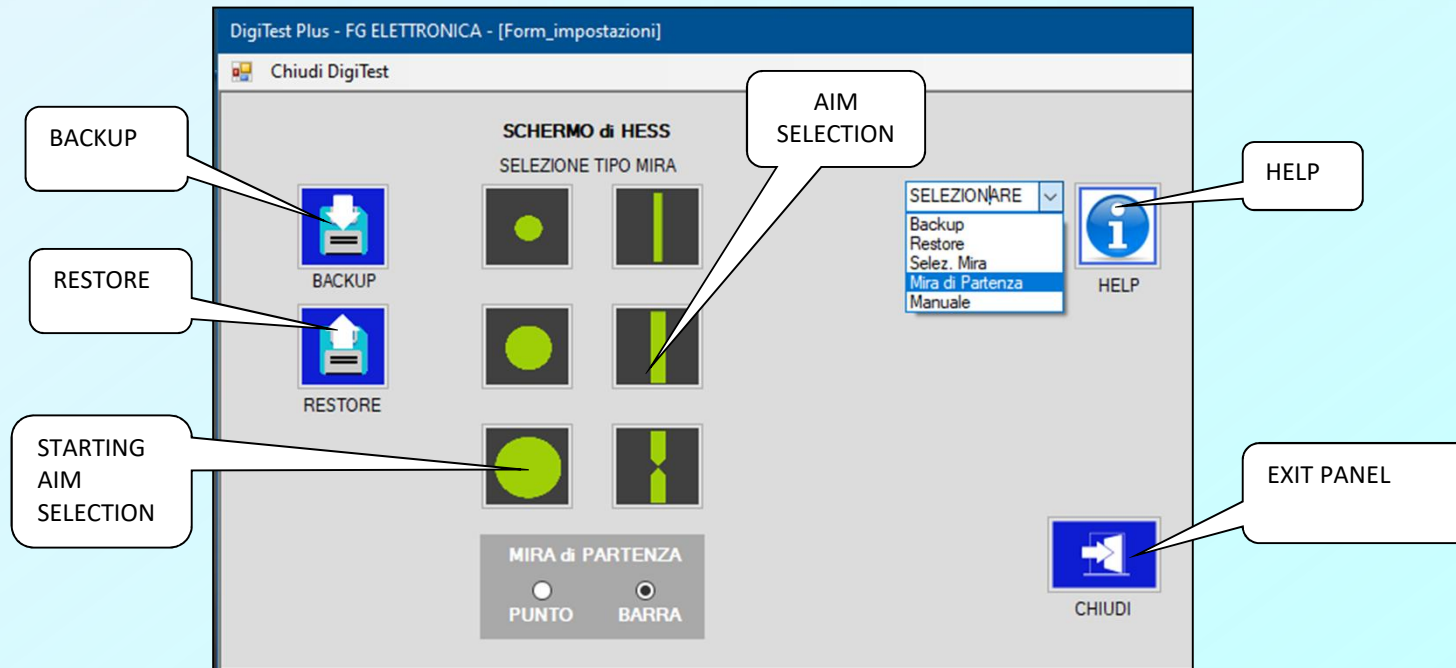
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FROM THE CONTROL PANEL, THE DOCTOR CAN CREATE A PATIENT CARD, OR LOAD AN EXISTING PATIENT. YOU CAN PERFORM ONE A TESTS, BY PRESSING ONE OF THE ICONS REPRESENTED. EVERY PANEL, HAS A HELP BUTTON WITH TEST INSTRUCTIONS IN PROGRESS.

PATIENT CARD

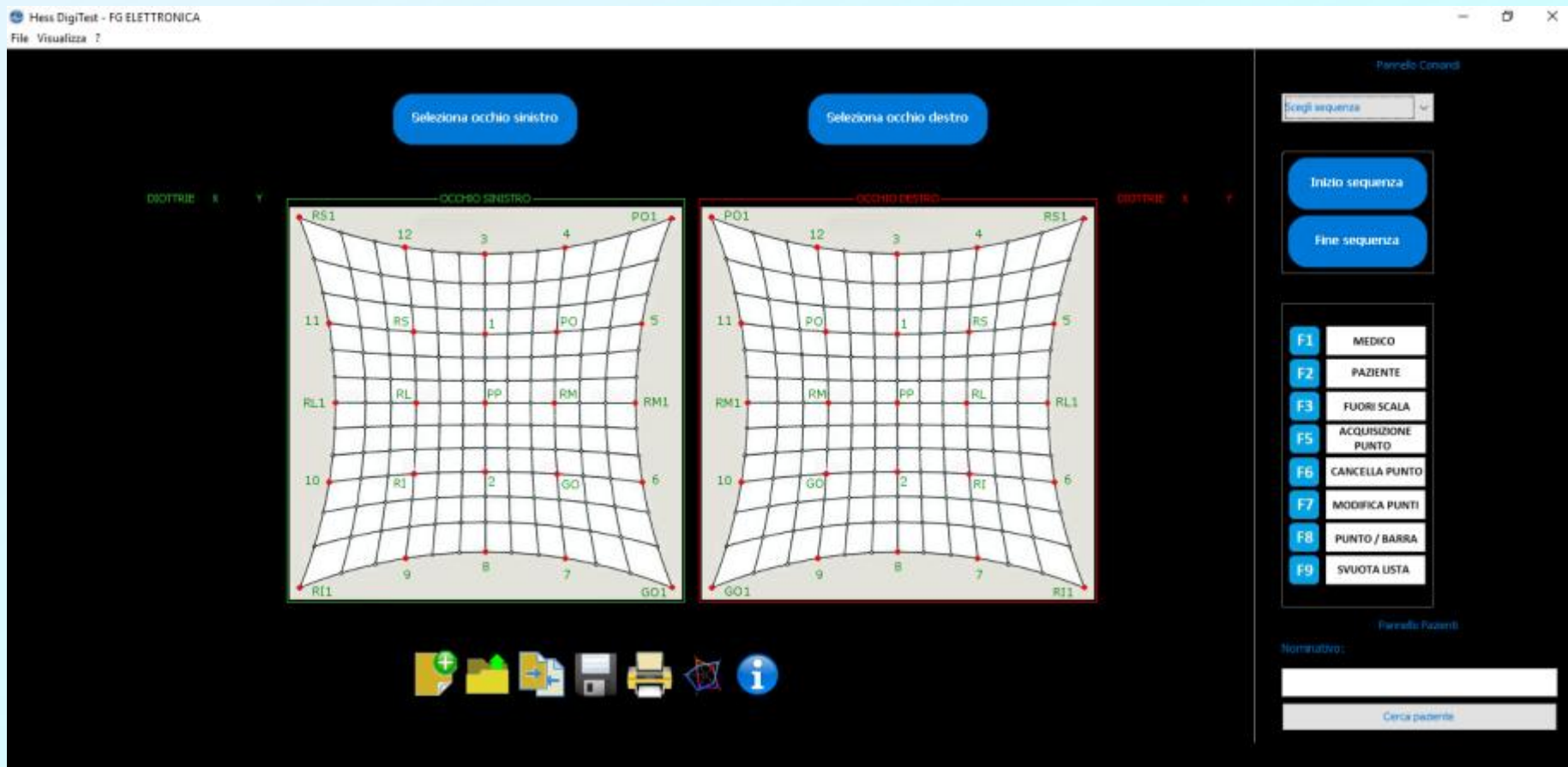
HESS DIGITEST



A settings panel, allows you to perform some configuration and maintenance functions of the program. including the Backup of the patient archive to be used in case of involuntary loss or deletion of data. the relative restore, restores the backup copy, returning the patient archive to the backup date. moreover, it is possible to select which target to use for the examination of the hess screen, for all the panels of each exam there is a Help button which shows the information relating to the exam in progress

SETTING PANEL

HESS DIGITEST



This is the control panel of the Hess exam, where all the commands necessary for carrying out the test are arranged. Some commands are implemented using the mouse, others via the function keys of the computer.

HESS DIGITEST

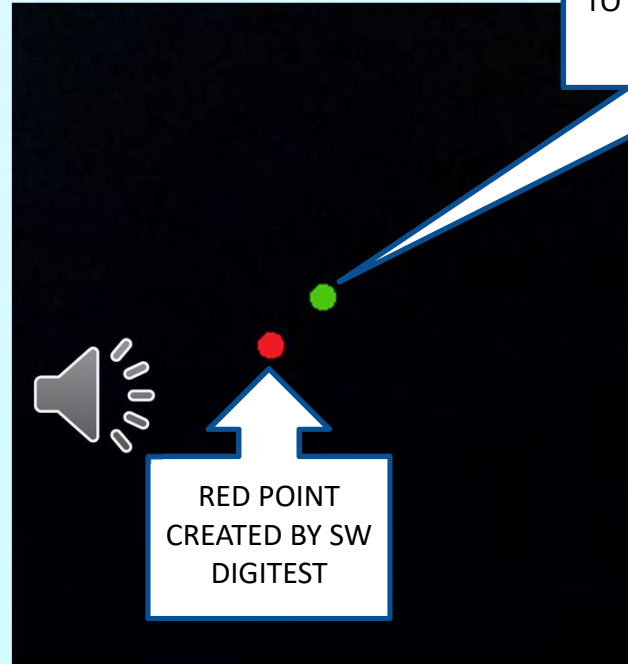
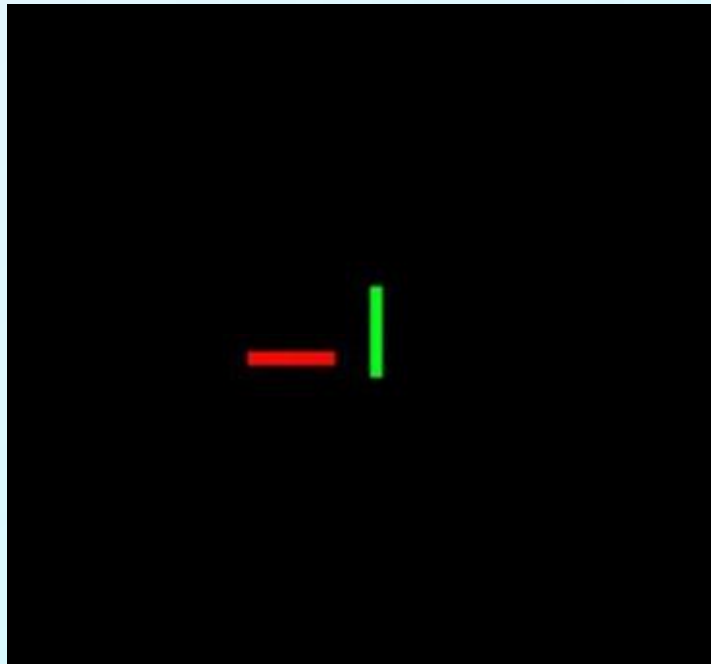
The screenshot displays the Hess DigiTest software interface. At the top, the window title is "Hess DigiTest - FG ELETTRONICA" and the menu bar includes "File Visualizza?". A blue button labeled "Seleziona occhio sinistro" is visible. The main area shows two Hess grid diagrams, one for the left eye ("OCCHIO SINISTRO") and one for the right eye. Each grid has 14 points labeled with letters and numbers (e.g., RS1, PO1, RS, PO, RL1, RM1, RL, RM, RI, GO, RI1, GO1). A white box with a blue border and an arrow points to a "Scegli sequenza" dropdown menu on the right. A text box next to it lists the sequence options: "1-BOX INT. + EST.", "2-INTERNAL BOX", "3-EXTERNAL BOX", and "4-LINEAR SEQUENCE". Below the dropdown are "Inizio sequenza" and "Fine sequenza" buttons. Further down is a function key menu with buttons F1 through F9 labeled "MEDICO", "PAZIENTE", "FUORI SCALA", "ACQUISIZIONI PUNTO", "CANCELLA PUNTO", "MODIFICA PUNTI", "PUNTO / BARRA", and "SVUOTA LISTA". At the bottom right, there is a "Pannello Pazienti" section with a "Nominativo:" label, a text input field, and a "Cerca paziente" button. A toolbar with various icons is located at the bottom center.

SEQUENCE SELECTION
1-BOX INT. + EST.
2-INTERNAL BOX
3-EXTERNAL BOX
4-LINEAR SEQUENCE

At this point it is necessary to select the sequence of tests to be performed. There are five pre-set sequences, one of which is a manual that allows the medical operator to select which point to activate. Then the exam begins. At the end the program saves the exam in electronic format and stores it in the patient's file, pressing the Print button, starts the immediate printing of the report.

Also here at the top there is the online help menu, with all the information relating to the test in progress.

HESS DIGITEST



GREEN POINT THAT THE PATIENT MUST OVERRIDE TO THE RED WITH TOUCH PAD

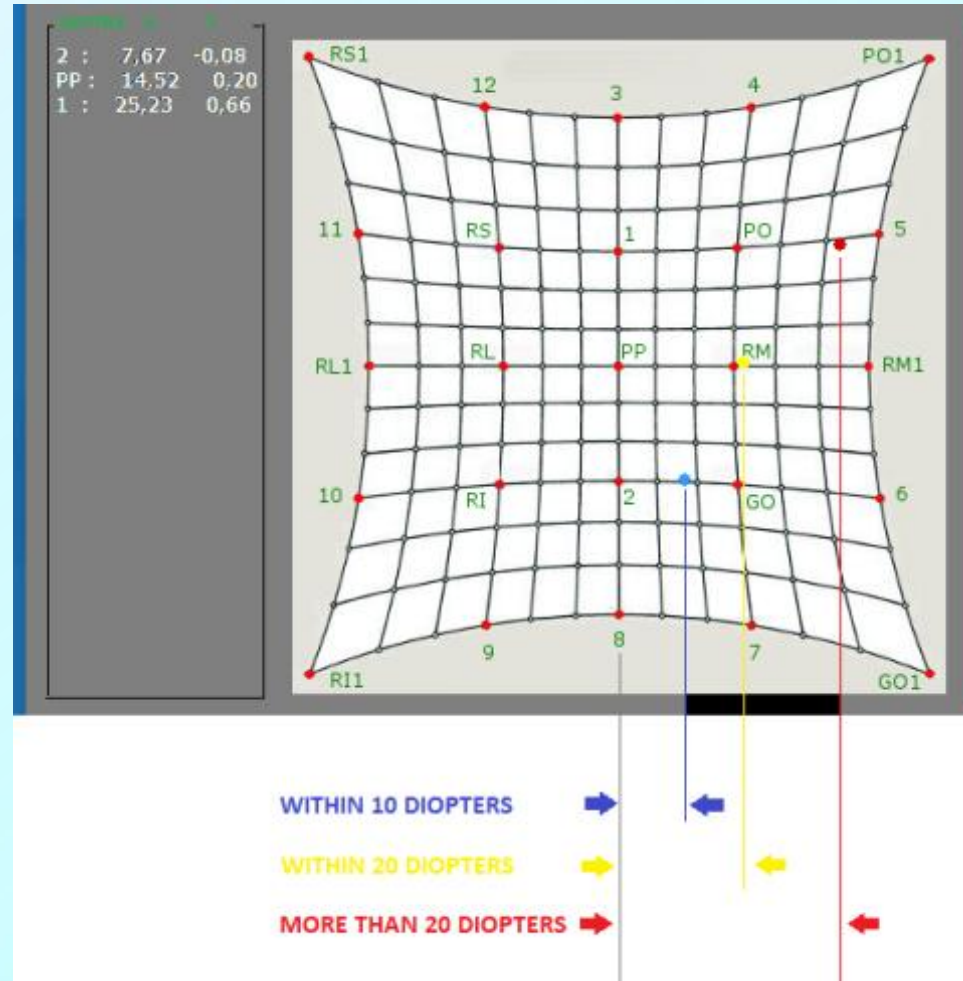
STORE BUTTON



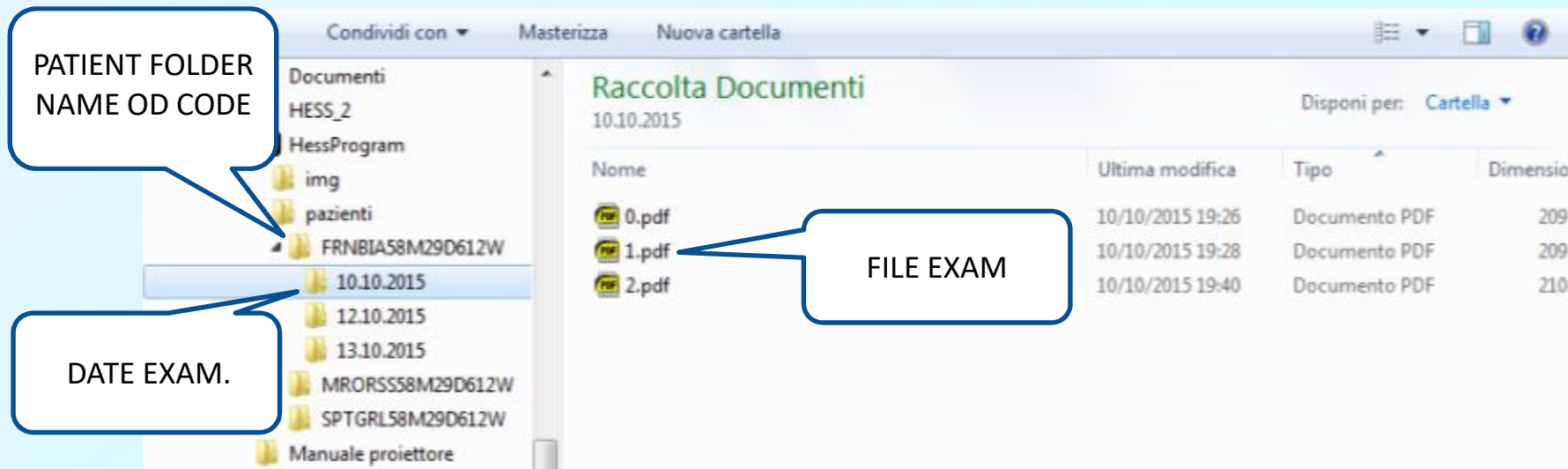
THE SEQUENCE OF THE RED SIGHT IS DISPLAYED ON THE SCREEN. THE SIGHT CAN BE SELECTED BETWEEN POINTS OR BARS WITH THE F8 KEY THE SEQUENCE ADVANCES AUTOMATICALLY WITH EVERY ACQUISITION HAPPENED

HESS DIGITEST

THE POINTS ARE STORED WITH THE ERROR VALUE, EXPRESSED IN DIOPTERS, ON THE COMPUTER CONTROL PANEL. ACCORDING TO THE LEVEL OF ERROR, THE POINT IS INDICATED IN DIFFERENT COLOR: BLUE, FOR VALUES LOWER THAN 10 DIOPTERS, YELLOW, FOR VALUES WITHIN 20 DIOPTERS AND RED, FOR HIGHER VALUES. THIS HAS THE PURPOSE, OF IMMEDIATELY HIGHLIGHTING THE LEVEL OF ERROR



HESS DIGITEST



THE RESULT OF THE EXAM, IS ARCHIVED BY CREATING AN INDIVIDUAL FOLDER, APPOINTED WITH THE NAME OF THE PATIENT, WITHIN WHICH CREATES OTHER FOLDERS, BASED ON THE DATE OF THE EXAM.

EACH EXAM PERFORMED ON THE SAME DAY, IS THEN APPOINTED WITH A PROGRESSIVE NUMBER THAT THE DOCTOR CAN RENAME FOR HIS CONVENIENCE IF HE CONSIDERS IT NECESSARY.

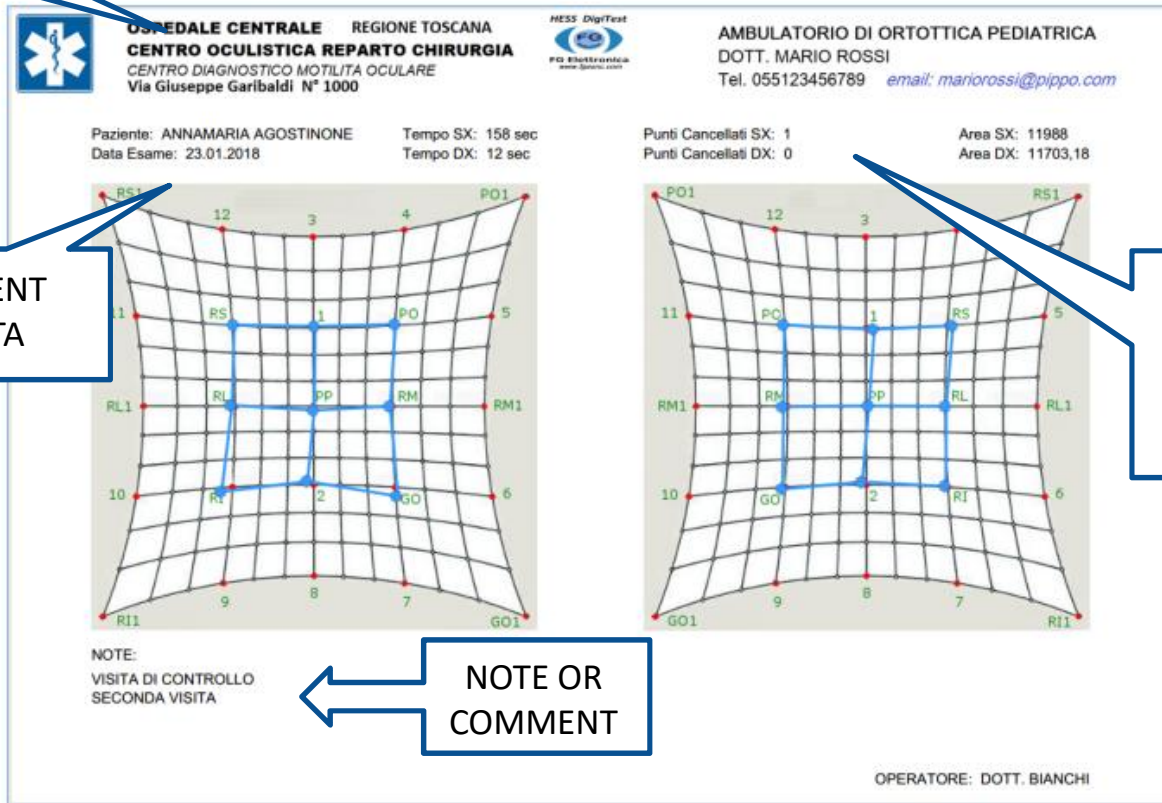


ARCHIVING AND PRINTING



HESS DIGITEST

LOGO AND HEAD
OFFICE CUSTOMIZABLE
MEDICAL STUDIO



PATIENT
DATA

EXAM INFO:
EXECUTION TIME
POINTS CANCELED
BOX AREA

NOTE OR
COMMENT

The press is organized in two pages. On the first page under the heading, the patient's data are indicated, the execution time, how many points have been deleted, and the area of the box that has been created.

The graphs relating to the left and right eyes are shown below, together with the notes that have been inserted in the patient file.

HESS DIGITEST

LEFT EYE

RIGHT EYE

OSPEDALE CENTRALE REGIONE TOSCANA
CENTRO OCULISTICA REPARTO CHIRURGIA
CENTRO DIAGNOSTICO MOTILITA OCULARE
Via Giuseppe Garibaldi N° 1000



AMBULATORIO DI ORTOTTICA PEDIATRICA
DOTT. MARIO ROSSI
Tel. 055123456789 email: mariorossi@pippo.com

INTERNAL BOX
(SEQ.2)

PUNTO	GRAD X	DIOTT X	GRAD Y	DIOTT Y
RM	-0,23	-0,40	*	*
GO	*	*	-0,76	-1,32
2	-0,63	-1,09	0,35	0,62
RI	*	*	-0,35	-0,61
	-0,35	-0,61	*	*
	*	*	0,06	0,11
1	0,08	0,15	0,18	0,32
PO	*	*	0,10	0,18
PP	0,00	0,00	-0,34	-0,59
AREA	11988,13			

PUNTO	GRAD X	DIOTT X	GRAD Y	DIOTT Y
RM	0,43	0,75	*	*
GO	*	*	-0,11	-0,18
2	0,41	0,73	0,31	0,54
RI	*	*	0,14	0,25
RL	-0,11	-0,18	*	*
RS	*	*	-0,03	-0,04
1	-0,71	-1,23	-0,11	-0,18
PO	*	*	0,06	0,11
PP	-0,21	-0,37	0,08	0,15
AREA	11703,18			

EXTERNAL BOX
(SEQ.3)

RS1				
12				
3				
4				
PO1				
5				
RM1				
6				
GO1				
9				
RI1				
10				
RL1				
11				
AREA	0,0			

RS1				
12				
3				
4				
PO1				
5				
RM1				
6				
GO1				
7				
8				
9				
RI1				
10				
RL1				
11				
AREA	0,0			

THE POINTS ARE IDENTIFIED WITH THE NAME OF THE OCULAR MUSCLE:
RM = MEDIUM RIGHT
PO = SMALL OBLIQUE
THE NUMBERS ARE THE INTERMEDIATE POINTS

VISUAL FIELD AREA

On the second page, the data of the examined points are listed, the points are identified with the name of the eye muscle. For each point examined, the error in degrees of deviation and the error in prismatic diopters are reported. The page is divided into two tables for the left eye, and two for the right eye, the first relating to the internal panel, and the other to the external panel.

HESS DIGITEST

The screenshot displays the HESS DIGITEST software interface. At the top, it shows the hospital name 'OSPEDALE CENTRALE REGIONE TOSCANA' and the department 'SERVIZIO OFTALMOLOGIA PEDIATRICA'. The interface is divided into two main sections, each representing a different exam. Each section contains a list of refractive parameters (RM, GO, Z, RL, RS, L, PD, PP) and two corresponding HESS grid charts. A central 'STAMPA' button is labeled 'PRINT COMMAND'. On the right side, there are buttons for 'Exam 1' and 'Exam 2', which are labeled 'SELECT EXAM. 1' and 'SELECT EXAM. 2' respectively. Callouts also point to 'PATIENT DATA EXAM. 1' and 'PATIENT DATA EXAM. 2' sections. The bottom right corner of the interface shows the version number 'HESS DigiTest 2.0'.

Finally, it is possible to compare two tests of the same patient, to check the progress of the pathology. to perform a comparison, open the comparison function by selecting the icon represented by two tabs. A mask is presented, where is possible to recall two exams of the same patient with different dates, pressing on the button, Exam1 and Exam 2. the comparison can be made on the video, or printed through the press button placed in the center of the screen. A paper print will be carried out, in addition to the saving in file format in a comparison folder dedicated, accessible from the computer desktop.

HESS DIGITEST

EXECUTION DIPLOPY FIELD EXAM

The screenshot shows the HESS DIGITEST software interface. At the top left, a 'Paziente' section displays 'GARIBALDI GIUSEPPE' and '4Febbraio1995'. Below this is a 'Data Esame' field and an 'Ortottista' field. A 'Annotazioni' section contains instructions: 'Posizionare il paziente sulla mentoniera', 'Seleziona il settore', 'Seleziona l'angolo', and 'Seleziona il diametro'. The main area is a circular target field titled 'CAMPO di DIPLOPIA' with a grid of radial lines and concentric circles. A callout box 'AIM SELECTION' points to a menu with options: 'Bianco Maculare', 'Bianco Foveale', 'Bianco Periferica', 'Colore Maculare', 'Colore Foveale', and 'Colore Periferica'. The 'Bianco Maculare' option is selected. Below the target field is a control panel with buttons for '15°', '30°', '1° Quadrante', '2° Quadrante', '3° Quadrante', '4° Quadrante', and 'Gradi'. A 'START EXAM' callout points to the 'AVVIA' button. Other callouts point to 'SELECT SECTOR AMPLITUDE', 'SELECT START ANGLE', and 'SELECT DEGREE - DIOPTR'. The bottom of the interface features a row of function keys: 'ANNULLA', 'SALVA', 'STAMPA', 'CHIUDI', 'F1', 'F2', 'F3', 'F5', 'F6', 'F7', 'F8', and 'F9'.

Let's see how to perform the diplopia field exam. Position the patient on the chin guard, and explain that, keeping the head still, he will have to move a bright target from the center of the screen to the extreme edge, moving it by means of the wheel of the mouse. If during the course, he will see the target split, memorize the point by means of the left button of the mouse, now must go back towards the center of the screen, until the splitting disappears, at this point he presses the mouse again to memorize the recovery point. The program will continue automatically until completion. The doctor can select the type of light target among the six available, the visual field is divided into four 90-degree quadrants, which can be inspected with sectors of 15 or 30 degrees, by selecting it using the "start dial" and "sector width" buttons. After making the settings, start the exam by pressing the START key. The exam can be stopped at any time by pressing the STOP key.

HESS DIGITEST

EXECUTION DIPLOPY FIELD EXAM

The screenshot shows the 'CAMPO di DIPLOPIA' software interface. On the left, a patient information panel displays:

- Paziente: GARIBALDI GIUSEPPE
- Nato il: 4 febbraio 1995
- Data Esame: 19 marzo 2020
- Ortottista: [empty]
- Annotazioni: [empty]

 Below this is a 'SAVE EXAM' callout pointing to the 'SALVA' button. A table in the center-left shows diplopia and recovery data:

Gradi	Diplopia	Recupero
0°	44°	37°
15°	44°	36°
30°	43°	38°
45°	42°	38°

 The main area is a circular field diagram with a grid. A callout 'EXTERNAL DIOPTER' points to a red-shaded area in the upper right quadrant. The control panel at the bottom includes buttons for 'ANNULLA', 'SALVA', 'STAMPA', 'CHIUDI', and function keys F1-F9 with labels: MEDICO, PAZIENTE, ACQ. PUNTO, CAN. PUNTO, AVVIA / FERMA.

As the patient stores the points, they are shown in red and green, and the diplopia and recovery data are recorded in the table, in the event of an error, it can be deleted and repeated without interrupting the examination. In the case of elderly patients or with problems, it is possible that he has difficulty maneuvering the mouse wheel, or is unable to maintain concentration on the exam, the doctor may move the target using the arrows on the keyboard, and acquire and delete the points, by means of the function keys F5 and F6. At the end of the sequence, the application colors the external diplopia area red, and combines the diplopia and recovery points with a red and green line. The doctor can add his diagnosis in the appropriate area. Pressing the save button, the application generates the report in the patient folder, then pressing the print button the report is displayed and then printed

HESS DIGITEST

EXECUTION DIPLOPY FIELD EXAM

OSPEDALE CENTRALE REGIONE TOSCANA
CENTRO DI OCULISTICA REPARTO CHIRURGIA
AMBULATORIO DI ORTOTTICA
Via Giuseppe Garibaldi N° 1000

SSI Servizio Sanitario della Toscana

Medico Dott.		Data esame	19-febbraio-2020
PAZIENTE	GARBALDI GIUSEPPE	M	Data di Nascita 2 gennaio 2020
ID	00 63	CF	GIUSEPPEGARBALDI

ESAME : CAMPO DI DIPLOPIA
Esito :

Gradi	Diplopie	Recupero
0	44°	37°
15	44°	36°
30	43°	36°
45	42°	36°
60		
75		
90		
105		
120		
135		
150		
165		
180		
210		
225		
240		
255		
270		
285		
300		
315		
330		
345		
360		

2° 135° 90° 45° 30° 15° 0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180° 210° 225° 240° 255° 270° 285° 300° 315° 330° 345° 360°

3° 225° 210° 195° 180° 165° 150° 135° 120° 105° 90° 75° 60° 45° 30° 15° 0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180° 210° 225° 240° 255° 270° 285° 300° 315° 330° 345° 360°

4° 315° 300° 285° 270° 255° 240° 225° 210° 195° 180° 165° 150° 135° 120° 105° 90° 75° 60° 45° 30° 15° 0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180° 210° 225° 240° 255° 270° 285° 300° 315° 330° 345° 360°

PATIENT DATA

DEGREES AND DIPLOPY TABLE

This is an example of a diplopy field exam printout, in addition to the patient data, exam date and exam result, the chart and table with the degrees of diplopy and recovery points are printed

TEST REPORT

HESS DIGITEST

EXECUTION CAMPIMETER EXAM

The screenshot shows the HESS DIGITEST software interface. At the top left, a window titled 'di Digitest' displays patient information: 'Paziente: GARBALDI GIUSEPPE', 'Data: 4Febbraio1995', and 'Data Esame: 19-marzo-2020'. Below this, the 'CAMPIMETRO' section features a large circular grid with degree markings (2°, 135°, 90°, 45°, 1°, 180°, 110°, 70°, 30°, 40°, 50°, 3°, 225°, 270°, 315°, 4°). To the left of the grid is a control panel with checkboxes for '1° Quadrante', '2° Quadrante', '3° Quadrante', and '4° Quadrante'. It also includes settings for 'Selezione settore' (15° or 30°), 'Selezione obiettivo' (Color, Dimension, Size), and 'Selezione monoculare/binoculare'. At the bottom, there are function buttons labeled F1 through F9, with sub-labels: F1 (MEDICO), F2 (PAZIENTE), F3 (ACQ. PUNTO), F5 (CAN. PUNTO), F7 (AVVIA / FERMA), and F9 (AVVIA / FERMA). Other buttons include 'FERMA', 'SALVA', 'STAMPA', and 'CHIUDI'.

PATIENT DATA

SELECTION QUADRANT

SELECTION SECTOR AMPLITUDE

SELECTION AIM: COLOR DIMENSION SIZE

SELECTION MONOCULAR BINOCULAR

START/STOP

Now let's see how to perform a campimeter test. First of all we make the patient sit in front of the screen, and explain how it will perform the test. the patient will have to keep his head still and his gaze fixed on the central target, using peripheral vision, he will have to move a bright target from the extreme edge of the screen to the center, using the wheel of the mouse. if during the path, he will see the target disappear, must memorize the first point by pressing the left button of the mouse, then continue towards the center of the screen, until the target reappears, now presses the mouse again to memorize the second point. If the target remains always visible, when it reaches the center of the screen it automatically passes to the next sector. the visual field is divided into four 90-degree quadrants, which can be inspected with sectors of 15 or 30 degrees, by default the system performs the entire field of vision, if you want you can only analyze the quadrant concerned, by selecting it using the buttons of "quadrant start" and "Sector width". Also to evaluate the sensitivity of the retina it is possible to vary the contrast of the peripheral target from 100% till 25%.

HESS DIGITEST

EXECUTION CAMPIMETER EXAM

The screenshot displays the 'CAMPIMETRO' software interface. On the left, a patient information panel includes fields for 'Paziente' (GARIBALDI GIUSEPPE), 'Nato il' (4 febbraio 1995), and 'Data Esame' (19 marzo 2020). Below this is a 'NOTE' section with a 'VISITA DI CONTROLLO' field. A callout box labeled 'SAVE EXAM' points to the 'SALVA' button. The main area features a circular visual field grid with a red shaded 'SCOTOMA AREA' in the upper right quadrant. A table to the left of the grid shows recorded data points:

Grad	Punto 1	Punto 2
0°	44'	35'
15°	44'	38'
30°	45'	42'
45°	45'	44'

At the bottom, there are function keys F1 through F9, labeled with 'MEDICO', 'PAZIENTE', 'ACQ. PUNTO', 'CAN. PUNTO', and 'AVVIA / FERMA'. A 'CHIUDE' button with a red 'X' is also present.

As the patient continues with the test, the points will be stored on the visual field grid, in the event of an error, the patient or doctor can eliminate the point and repeat the measurement. for each point the angular degree relative to the sector performed is recorded. At the end of the sequence, or in any case when the STOP button is pressed, the identified scotoma area is filled with red. now the doctor can enter his diagnosis in the appropriate NOTES field, and by pressing the save button, the application generates the report and stores it in the patient folder, then pressing the print button the report is displayed and then printed

HESS DIGITEST

EXECUTION CAMPIMETER EXAM

OSPEDALE CENTRALE REGIONE TOSCANA
CENTRO DI OCULISTICA REPARTO CHIRURGIA
AMBULATORIO DI ORTOTTICA
 Via Giuseppe Garibaldi N° 1000

SST Servizio Sanitario della Toscana

Medico: BIANCHINI	Data esame: 19-marzo-2020
PAZIENTE: GARIBALDI GIUSEPPE M	Data di Nascita: 4febbraio1995
ID: 00 63	CF: GIUSEPPEGARIBALDI
ESAME: CAMPIMETRO Modalità: Binoculare Occhio:	Distanza Interp. = 62
Esito: VISITA DI CONTROLLO	

Gradi	Punto 1	Punto 2
0	44°	35°
15	44°	38°
30	46°	42°
45	45°	44°
60		
75		
90		
105		
120		
135		
150		
165		
180		
210		
225		
240		
255		
270		
285		
300		
315		
330		
345		
360		

FG Elettronica: Via C. Battisti 53, Castelfiorentino (FI); Tel. 057172512 P.A. 0661110484;
 Email: commerciale@fgemc.com

PATIENT DATA

BLIND AREA
POINTS
DEGREES

This is an example of printout of the test of the campimeter, in addition to the patient data, exam date and outcome of the exam, the graph and the table with the degrees of scotoma points are printed

TEST REPORT

HESS DIGITEST

EXECUTION SCOTOMETRY EXAM

PATIENT DATA

Paziente: GARIBALDI GIUSEPPE
 Nato il: 4Febbraio1995
 Data Esame:
 Orbitola:
 Annotazioni:

SELECTION QUADRANT

SELECTION SECTOR AMPLITUDE

SELECTION AIM: COLOR DIMENSION SIZE

START/STOP

SCOTOMETRIA

2° 135° 90° 45° 1°
 180° 10° 20° 30° 40° 50°
 3° 225° 270° 315° 4°

1° Quadrante 15° COLORE
 2° Quadrante 30° DIMEN.
 3° Quadrante Mira Area?
 4° Quadrante Grad

AVVIA SALVA STAMPA CHIUDI

F1 F2 F3 F5 F6 F7 F8 F9
 MEDICO PAZIENTE AGO. PUNTO CANI. PUNTO AVVIA / FERMA

Now let's see how to perform a binocular scotometry test. Make the patient sit in front of the screen, place it on the chin guard, and explain how it will perform the test. The patient will have to wear the red-green anaglyphic glasses, The examination is similar to the campimeter, but uses the dissociation between the two eyes by means of the anaglyphic glasses and red green sights. It is possible to select the size and color of both fixation and peripheral targets. Keep his head still and his gaze fixed on the central target, and using peripheral vision, he will have to move a bright target from the extreme edge of the screen to the center, using the wheel of the mouse. If during the path, he will see the target disappear, he must memorize the first point by pressing the left button of the mouse, then continue towards the center of the screen, until the target reappears, Now presses the mouse again to memorize the second point.. The visual field is divided into four 90-degree quadrants, which can be inspected with sectors of 15 or 30 degrees, by default the system performs the entire field of vision with sectors of 15 degrees, if you want you can only analyze the quadrant concerned by selecting it using the buttons of "quadrant start" and "Sector width".

HESS DIGITEST

EXECUTION SCOTOMETRY EXAM

The screenshot displays the 'DigTest Plus - FG ELETTRONICA - [Campo Visivo]' application. The main window is titled 'Campo Visivo' and contains the following elements:

- Patient Information:** Name: GARIBALDI GIUSEPPE, Birth: 4 febbraio 1995, Exam Date: 19 marzo 2020, Refraction: VISITA DI CONTROLLO.
- Visual Field Grid:** A circular grid with angular markings from 0° to 180° and 270°. A red shaded area in the upper-left quadrant is labeled 'SCOTOMA AREA'.
- Data Table:** A table with columns 'Grad', 'Punto 1', and 'Punto 2' containing numerical values.
- Control Panel:** Includes buttons for 'AVVIA', 'SALVA', 'STAMPA', and 'CHIUDI', along with a 'SAVE EXAM' callout.
- Function Keys:** A row of function keys labeled F1 through F9 with corresponding actions like 'MEDICO', 'PAZIENTE', 'ACQ. PUNTO', 'CAN. PUNTO', and 'AVVIA / FERMA'.

As the patient continues with the test, the points will be stored on the visual field grid, in the event of an error, the patient or doctor can eliminate the point and repeat the measurement. for each point the angular degree relative to the sector performed is recorded. At the end of the sequence, or in any case when the STOP button is pressed, the identified scotoma area is filled with red. now the doctor can enter his diagnosis in the appropriate NOTES field, and by pressing the save button, the application generates the report and stores it in the patient folder, then pressing the print button the report is displayed and then printed

HESS DIGITEST

EXECUTION SCOTOMETRY EXAM

OSPEDALE CENTRALE REGIONE TOSCANA
 CENTRO DI OCULISTICA REPARTO CHIRURGIA
 AMBULATORIO DI ORTOTTICA
 Via Giuseppe Garibaldi N° 1000

SST Servizio Sanitario della Toscana

Medico: BIANCHI	Data esame: 19-marzo-2020
PAZIENTE: GARIBOLDI GIUSEPPE	M
ID: 0063	Data di nascita: 4-febbraio-1995
ESAME: SCOTOMETRIA	CF: GIUSEPPEGARIBOLDI
Modaltà: Binoculare	
Esito: VISITA DI CONTROLLO	

Gradi	Parte 1	Parte 2
0		
15		
30		
45		
60		
75		
90	23°	20°
105	28°	17°
120	25°	18°
135	29°	22°
150	25°	24°
165	0°	0°
180	0°	0°
195		
210		
225		
240		
255		
270		
285		
300		
315		
330		
345		
360		

FG Elettronica - Via C. Battisti 53, Castelfiorentino (FI), Tel. 057172012P.X. 0611113484;
 Email: commerciale@fgenc.com

PATIENT DATA

BLIND AREA POINTS DEGREES

This is an example of printing the Scotometry exam, in addition to the patient data, exam date and outcome of the exam, the graph and the table with the degrees of scotoma points are printed.

TEST REPORT

HESS DIGITEST

EXECUTION WORTH TEST

The screenshot displays the 'DigiTest Plus - FG ELETTRONICA' software interface. On the left, a patient data form for 'ROSSI MARIA' is visible, with fields for 'ESITO' (containing 'VISIONE MONOCULARE CON SOPPRESSIONE DELL'OCCHIO SX') and 'NOTE' (containing 'VISITA DI CONTROLLO'). Below the form are buttons for 'ANNULLA', 'SALVA', 'STAMPA', and 'CHIUDI'. The main area is titled 'TEST di WORTH' and shows a 'TEST a 50 cm' with options for 'Piccolo' and 'Grande'. A 'PROJECTED AIM' callout points to a central white dot on a black background with four colored dots (red, green, green, white). Below this is a 'RISPOSTA PAZIENTE' section with six small grids of colored dots and two buttons: 'RX File: ROSSO' and 'DX File: VERDE'. Callouts on the left point to 'PATIENT DATA', 'EXAMINATION RESULT', and 'COMMENTS'. Callouts on the right point to 'SIGHT DIMENSION' and 'PERCEPTION'.

Worth test: After explaining the test, start by selecting the type of light target between the two available sizes 5 or 10 mm. four colored sights will be displayed, one red at the top, two green in the center, and one white at the bottom. the patient must observe the aims and report his chromatic perception to the doctor. based on the patient's response, the doctor selects one of the six possible conditions, adding his diagnosis in the Notes field. pressing the Save button will create the report with the pathology and diagnosis written by the doctor.

HESS DIGITEST

EXECUTION WORTH TEST

DOCTOR

PATIENT DATA

EXAMINATION
RESULT

COMMENTS

OSPEDALE CENTRALE REGIONE TOSCANA
CENTRO DI OCULISTICA REPARTO CHIRURGIA
AMBULATORIO DI ORTOTTICA
Via Giuseppe Garibaldi N° 1000

SSI Servizio Sanitario della Toscana

Medico	Dott. BIANCHINI	Data esame	13/02/2020
PAZIENTE	ROSSI MARIA	F	Data di Nascita 8febbraio1991
ID	00 64	CF	MARIAROSSO
ESAME : TEST di WORTH			
Esito : VISIONE MONOCULARE CON SOPPRESSIONE DELL'OCCHIO SX			
Note: VISITA DI CONTROLLO			

EXAM DATE

this is an example of printing the exam of worth, the patient's data are printed, date of the exam and outcome of the exam with the doctor's diagnosis

TERST REPORT

HESS DIGITEST

EXECUTION SCHOBER TEST

PATIENT DATA

EXAMINATION RESULT

COMMENTS

PROJECTED AIM

Schober test: By pressing the **START** key, the test begins where two green circles with a red cross in the center will be displayed, which the patient will have to move with the mouse, until he perceives it in the exact center of the two circles, at this point he presses the key left of the mouse to memorize the position. In the event of an error, pressing the right button cancels the measurement and can be repeated. The program memorizes the point and calculates the alignment error identifying the vertical and horizontal holes, and calculating the error in prismatic diopters, and indicating whether it is an esophoria, or an exophoria, with right or left hyperforia. In the case of elderly patients or with problems, it is possible that he has difficulty maneuvering the mouse wheel, or is unable to maintain concentration on the exam, the doctor may move the target using the arrows on the keyboard, and acquire and delete the points, by means of function keys F5 and "ESCAPE" the doctor will confirm the indication by adding his diagnosis and any comments. Pressing the Save button will create the report with the pathology and diagnosis written by the doctor. By pressing the Print button the report will first be displayed and then printed.

HESS DIGITEST

EXECUTION SCHOBER TEST

DOCTOR

PATIENT DATA

EXAMINATION
RESULT

COMMENTS

OSPEDALE CENTRALE REGIONE TOSCANA
CENTRO DI OCULISTICA REPARTO CHIRURGIA
AMBULATORIO DI ORTOPTICA
Via Giuseppe Garibaldi N° 1000

SST Servizio Sanitario della Toscana

Medico	Dott. BIANCHINI	Data esame	13/02/2020
PAZIENTE	ROSSI MARIA	F	Data di Nascita 8febbraio1991
ID	00 64	CF	MARIAROSSII
ESAME : TEST di SHOBER			
Esito :			
EXOFORIA + IPERFORIA SX			
Correzione = 6,7 Diottrie			
Note:			
PRIMA VISITA DI CONTROLLO			

EXAM DATE

This is an example of a schober exam printout, the patient's data, exam date and outcome of the exam with the doctor's diagnosis are printed

TERST REPORT

HESS DIGITEST

FG ELETTRONICA

Via C. Battisti 53

50051 Castelfiorentino (FI)

ITALY

www.fgesnc.com