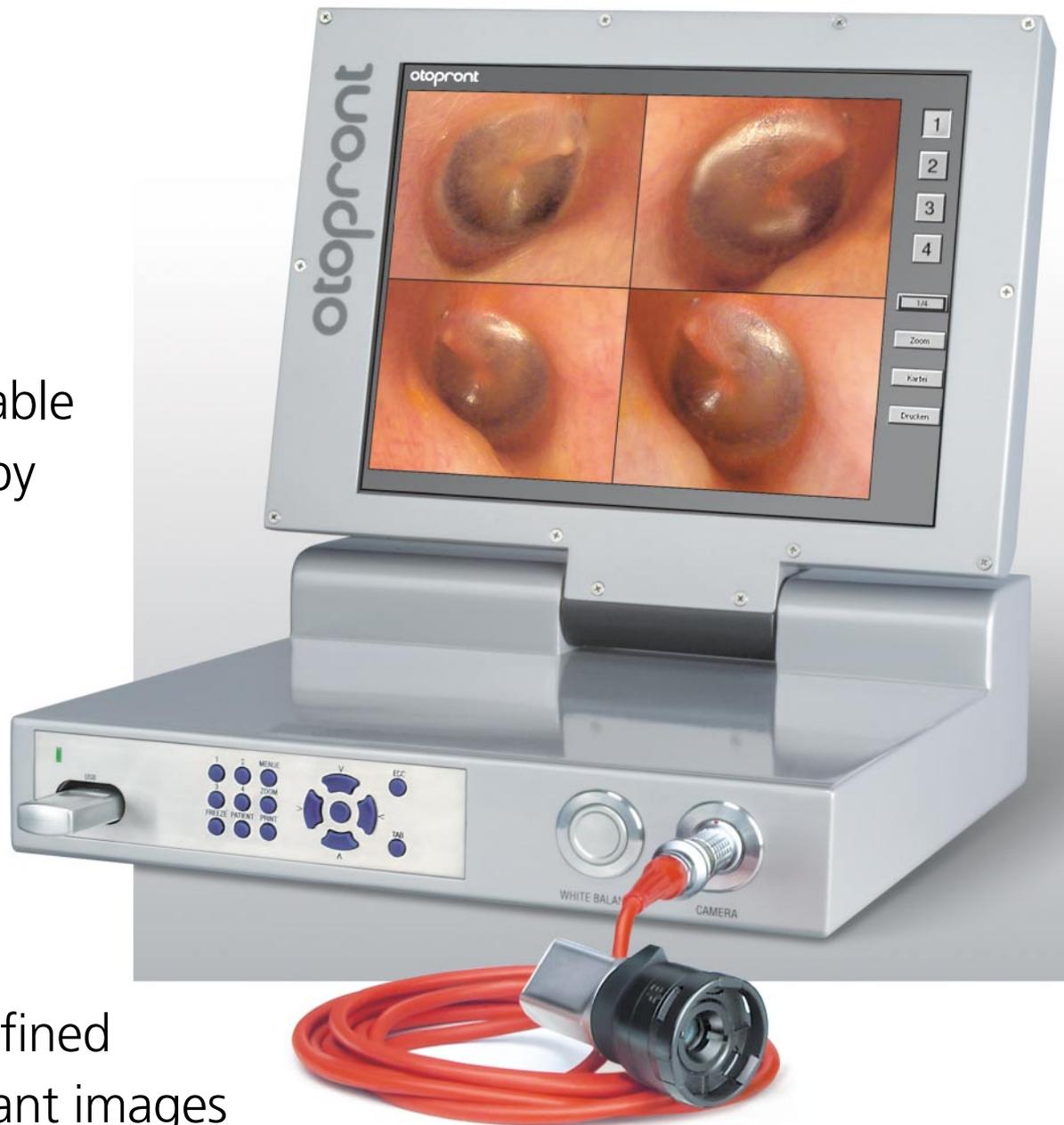# PES 2

The Portable
Endoscopy
System

Providing
highly defined
and brilliant images

otopront ®

PES 2

The portable endoscopy system

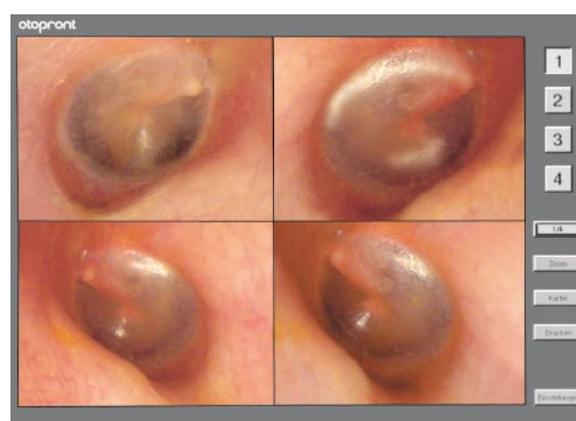Detail frame can further
be enlarged by zoom

With digital bit map memory, creating flexibility for the documentation of results

The **PES 2** represents a new generation of high-performance systems for endoscopic diagnosis. The combination of sophisticated camera technology and digital bit map memory lends innovative support to medical procedures.

The **PES 2** was designed with the aim of providing an endoscopy system which boasts a high level of quality and only takes up minimal space. With the **PES 2**, a device has come onto the market that is as easy to operate as it is flexible to use.

A large number of innovative details make it especially comfortable to operate. Its setting can be changed from right-handed to left-handed operation directly on the camera. With the rapid focus device endoscopic images can be achieved simply by turning a knob at the camera head.

Because of the special snap system, the camera head can easily be connected to all types of rigid and flexible endoscopes. Attaching it to the adapter of a microscope observation tube is equally straightforward.

System switched to the
overview mode

Operation by front panel, remote control, mouse or keyboard. Image storage also by foot-switch

Using the remote control or foot-operated switch, high-resolution frames can be produced during the examination. The digital storage of 4 full-view frames, and the possiblity of switching from a detail frame to the displaying of an overview, make it easier for results to be compared.

Depending on capacity, up to hundred digital images can be stored on the plug-in memory stick. All images are stored in bitmap data format at the highest possible resolution. Using the removable memory stick the images can be transferred onto other systems, separately in terms of place and time. This

makes it easy for images produced in the operating theatre to be called up on a laptop or PC later on.

Naturally, the **PES 2** can also be connected directly to a computer network or external devices such as a video printer or video recorder.

Documentation of findings

Digital bit map memory	digital storage of 4 high-resolution images, with the possibility of switching them from full-view mode to an overview display, memory logic process-related
Removable medium	USB memory stick for the storage of up to hundred digital images depending on capacity
File format	BMP bitmap image, high-resolution

Video image editing

Technology	real-time processing in studio quality with integrated endoscopic filters, automatic brightness and colour balancing, key to zoom digitally, User interface menu-guided, on-screen explanations
Process control	operation of the system by remote control, mouse, keyboard or control panel, image storage also by foot-switch
Interfaces	the PES 2 provides a large number of different interfaces to guarantee the combination with external equipment like a video-printer, video-recorder, 2nd monitor, PC, TCP/IP network, LAN systems

Camera unit

Endoscopic camera	1/3" CCD Sensor
Video signal	PAL or NTSC
Resolution	752 lines, 752 x 582 pixels
Focusing	rapid focusing device at the camera head

Flat screen monitor

Technology	TFT 12.1" SVGA, high-resolution
Resolution	800 x 600 pixels
Angular field	140°/110° (horizontal/vertical)
Brightness	300 cd/m²
Contrast ratio	300:1

Interfaces

Video	S-VHS video in (Y/C), S-VHS video out (Y/C)
Digital interface	TCP/IP ethernet, LAN printer connection HIS and DICOM compatible USB memory stick USB for external functions PS/2 for keyboard and mouse
Accessories	USB-Port in the front panel remote control patient administration program with compact keyboard carrying-case (aluminium)
Casing	steel casing
Dimensions	monitor open: 33 x 33 x 32 cm (WxHxD) closed: 33 x 9 x 32 cm (WxHxD)
Weight	8,5 kg
Hygiene	camera system including cable and plugs fully soakable
Power supply	110–230 V, 50/60 Hz, 30 W
CE marking	accord. to MDD 93/42/EEC

All designs and specifications subject to change without notice.

Plug-in USB memory stick for transferring the images to other systems

OtoCap®

The optional image editor

The medical image editing and database software for practice IT-systems

The PC-based application software **OtoCap®** brings flexibility and comfort to the classification, editing and archiving of the image files obtained from various image-generating systems (endoscopic cameras, digital photography cameras …). Thanks to the integrated patient database, it is possible to manage all the images and findings efficiently.

Using the foot-switch, high-resolution detail frames can be generated from the live video during the examination. Every image can be filtered for a range of different applications without altering or reducing the quality of the original archive image. The images are thus available to be used in doctors' letters or presentations, or to be passed on to colleagues or patients.

Patient database
with comprehensive search function, thumbnail preview of the images
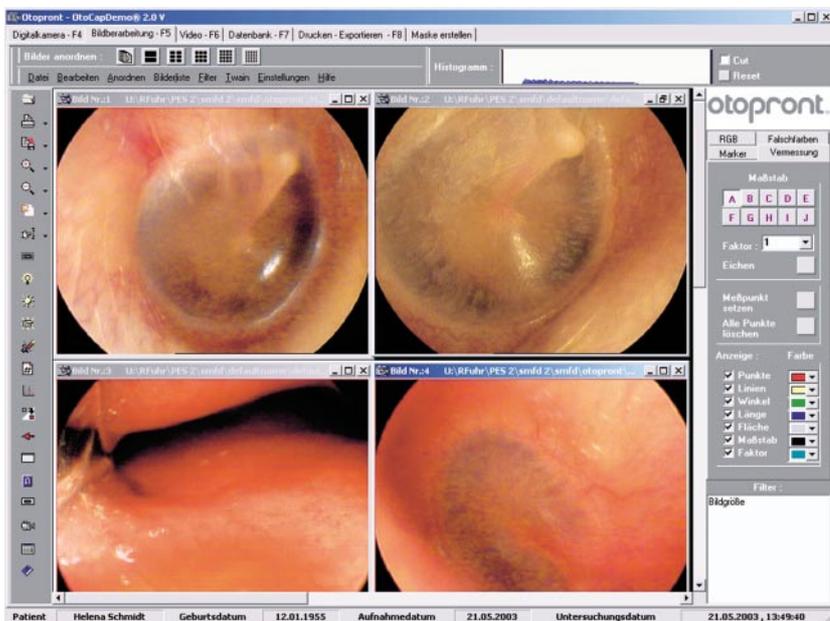
Image editing
with filters for endoscopic images, marking and labelling functions, measurement functions and a wide range of printing options
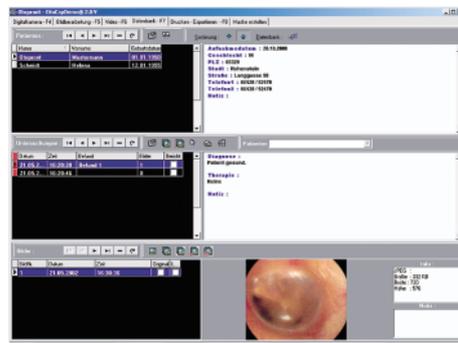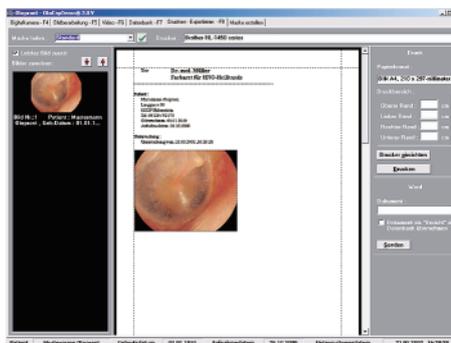
Storage of images during the examination
foot-switch for the storage of images from the live video, import of images using the Twain interface (digital camera), import of patient data using the card reader (option)

Export function
export of doctors' letters, images and text onto external media

OtoCap® is compatible with PC operating systems such as WINDOWS 98/98ME/2000/XP and can be used universally with all VHS camera types.

otopront®