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General

Symbols Used



Warnings

Usage

Recording and management of Video and X-ray images in relation to the patient.

Trade Mark

Windows 95, 98, NT[®], 2000, XP, DirectX[™], DirectDraw[™] are registered trade marks of Microsoft Corp.

All other names and product names are brand names or registered trade marks of the respective manufacturers.

Registration

As a registered user of the DBSWIN-Program you have the right to a fully-functional program and to a wide range of technical support.

You are required to activate the registration in the DBSWIN-Program, select the required configuration and print out the registration form, or complete the registration form enclosed in the Appendix should a printer not be connected.

DÜRR DENTAL GmbH & Co. KG
Höfigheimer Straße 17
D- 74321 Bietigheim-Bissingen

The completed registration form should be faxed or posted to Dürr Dental.

Dürr Dental will then inform you of the user code for your particular system.

You will be informed about any changes or updates by our update service.

The software is not copy-protected. You may make only one copy for data security purposes.

Copying of the software or publishing of the software documentation is not allowed without the prior consent of Dürr Dental.

Storage of the data media

Protection your data media according to the guidelines of the manufacturer from

- Direct magnetic influence (durable or electro-magnetic)
- Temperature exceeding permitted area
- Humidity exceeding permitted area
- Damage (scratch, break, distortion, .)

Data security

We recommend that you make a complete backup of the software already installed on the computer before installation of the software.



Using of the X-ray module (i.e. with Vista Ray) a backup of the DBSWIN-database directory must be done periodically!

Information as to how to make a backup are available in the chapter 'further Information' (section Data Backup).

Liability concerning effect on computer systems

Dürr Dental is not liable for any incompatibility or other effects which may arise between this software and with any software already installed on the computer system.

Copyright

Copyright 2003 by Dürr Dental

License Agreement DBS Software

1. The licensor grants the licensee the non-transferable, not exclusive right, to use the program "DBS Windows" in his or her surgical practice. Any other use, especially any cession to a third party is prohibited. The program DBS may only be used by the licensee, when the licensing agreement has been lawfully signed and returned to DÜRR DENTAL GmbH & CO. KG.
2. All rights concerning the purchased software and the handbook, especially the reproduction in any shape or form remains with DÜRR DENTAL GmbH & CO. KG
3. In case of any infringement of the terms and conditions here laid down, the company DÜRR DENTAL GmbH & CO. KG has the right to terminate this contract immediately and to prohibit any further use of the product.
4. DÜRR DENTAL GmbH & CO. KG guarantees the licensee that the software provided is suitable for the purposes for which it was produced. Should, during the guarantee period of 12 months, shortcomings in the software arise, then DÜRR DENTAL GmbH & CO. KG will correct or supply replacement at their cost. In the case of corrected or replacement proving unproductive, the licensee is entitled to return the software and to demand the full refund of the purchase price. Claims for damages and compensation are inadmissible, where no malicious or irresponsible intent or violation of essentials of the license agreement by the licensor are present.
5. Should use of the software lead to data loss by the licensee, the company DÜRR DENTAL GmbH & CO. KG is liable for the damage caused, provided the user has made back-ups at suitable intervals and at least once a day, in suitable form, in order that this can be recovered with warrantable expenditure.

Operation

General

The program operations are common to the Windows convention rules. If any operations are required which vary from this, these parts are pointed out in the handbook

Mouse

- | | | |
|-----------------------------------|---|---|
| (Single) click, Left click | : | Press left mouse key and release |
| Double click | : | Press left mouse key twice and release |
| Right click | : | Press right mouse key and release |
| Drag&Drop (Drag-Left) | : | Press left mouse key over the object or image, without releasing move the mouse and release mouse key at the desired location. |
| Take&Drag&Drop | : | Press mouse key over the object or image, without releasing move the cursor to the desired position and release with mouse click |

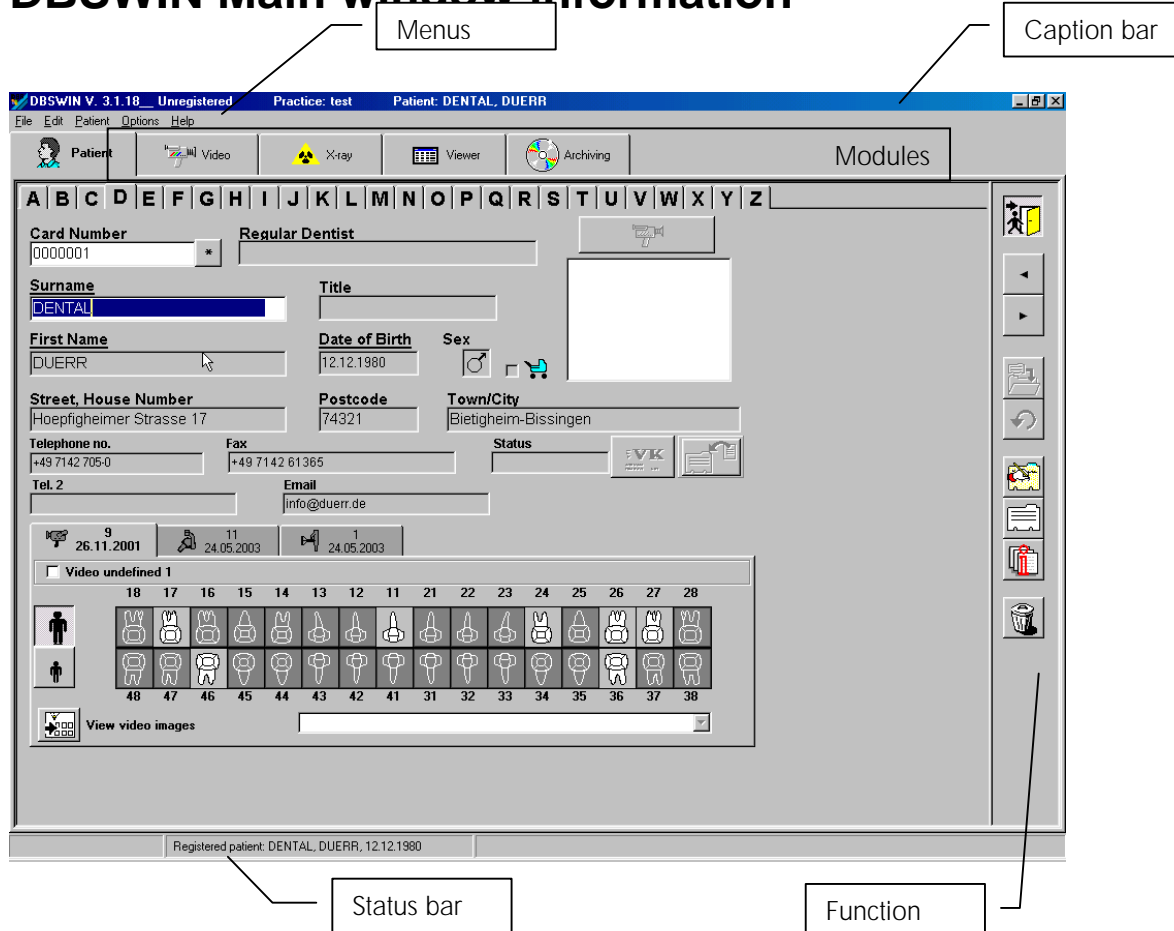
The following description is related to Windows standards . (Right-handed person mouse)

- | | | |
|---|---|---|
| Click | : | Activate or initiate a function. Select a menu selection or a function. |
| Double click on an object or image | : | Activate an object or image related function (e.g. Image Processing). |
| Right click | : | Call up context menu. |
| Drag&Drop | : | Moving or copying of objects between two objects or applications with Drag&Drop ability. |
| Take&Drag&Drop | : | Drawing the start and end points of graphical objects. (e.g. luminance/contrast controls) |

Keyboard

The keyboard can be used to select from menus of DBSWIN or to give input.

DBSWIN Main window information




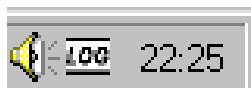
The practice name and the selected patient are viewed in the caption bar.

The user logged in and the last registered patient are viewed in the status bar.

Error protocol

While the program is running, any errors that occur are automatically logged by the Logserver which is activated on every program start, and automatically saves this in a file at the end of the session. These files (LOGx.rtf) are located in the directory DBSWIN\bin and can be referred to in the case of any program problems.

The Logserver  can be found below left in the Windows task strip during the running of DBSWIN.



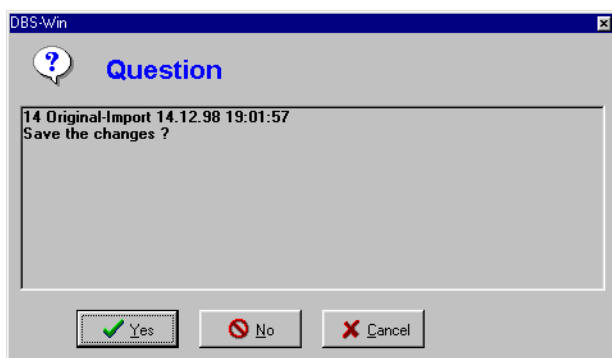
You can view the Logserver by *double click* to get the all the messages due to errors or warnings. You can finish the Logserver by selecting **Quit** after a right click on the logserver symbol in the Windows task strip.



Please do not finish the Logserver while running DBSWIN!

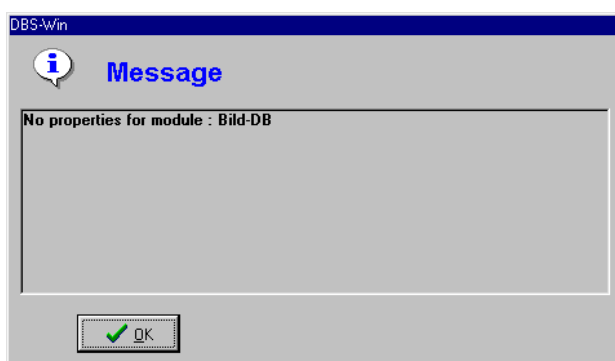
Dialog Window

Question



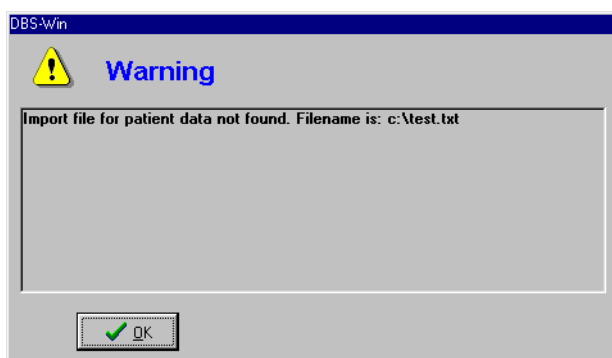
A question window appears as a safety feature that allows you to confirm, deny or cancel an action.

Message



Reports give information relevant to an instruction that has been carried out.

Warning



A warning appears when an instruction could not be, or could only partly be carried out.

General Menu/Functions

Quit (Menu File)

Returns to Login-status to change user information or to end program.

Configuration (Menu Options)

The display concerning configuration information can be activated or deactivated.

X-ray checks viewing and printing (Menu Options)

The x-ray checks can be viewed and printed.

Monitor test (Menu Options)

The monitor test sequences can be started (At the moment only valid for Germany!).

Contents (Menu Help)

Contents.

Help (F1) (Menu Help)

Displays help to current module.

About DBSWIN (Menu Help)

Registration of program and displays the registered module and versions.

System Requirements

Hardware and Software



- The PC and additional components (Monitor, printer,..) must be set up according to IEC601-1 (EN60601-1), if they are used within the defined patient area (1.5 m around the patient's examination area).
- In combination with other equipment (Video camera, scanner, intraoral X-ray system) the safety requirements of the PC system may differ. Further information is located in the user manuals or may be derived from the regulations valid for the country where the system is installed (e.g. MPG for Europe).
- Customary standard PCs and components do not fulfill IEC 601-1 (EN60601-1) and must be modified if they are used within the patient area.

PC

Any PC which fulfills the requirements listed below and all regulations valid for the current country where the system is installed.

Any Processor, Hard disk and RAM may be used with higher values.

Minimum PC requirements	
Processor	:INTEL Pentium III compatible CPU 800 MHz or higher
Working memory	:≥ 256 MB RAM (recommended 512 MB)
PCI-Slot	: 1 free Masterbus ability (needed for framegrabber VIDEO)
Graphic-adapter	: Direct Draw™ and Video Overlay (WIN 95) support
- video memory	:≥ 16 MB (recommended 32 MB)
- resolution	:1024 x 768 16,7 Mio colors(recommended 1280 x 1024 16.7m colors)
- image refresh rate	:min. 75 Hz
- tested Chipsets	: S3 Trio 64V+, S3 Virge
- tested cards	: Matrox Millenium, Matrox Mystique, Miro Mach 64
Hard disk	: 20 GB free space (recommended 40 GB)
Hardware interfaces	: 1 parallel interface with EPP-mode (needed for VistaRay)
	: 1 serial interface (for wired foot pedal)
	: 1 Gameport or USB-port (for wireless foot pedal)
Monitor	: 17" (41cm), image refresh rate ≥ 75Hz

Operating system

Windows 98 SE (is not recommended!)

Windows NT 4.0 (min. Service Pack 4.0) **

Windows 2000 Professional

Windows XP Professional

We strongly recommend using the NTFS as file system for the storage medium of the DBSWIN database DBSDATA! Use the existing Windows program Convert.exe to convert an existing FAT32 data system to NTFS!

DirectX Version 8.x or higher

** since Version 6/99!



Alternative requirements may be necessary if the system is to be used together with Dürr Dental intraoral camera system VistaCam, the X-ray image systems VistaRay and VistaScan.

Detailed information can be found on the DBSWIN-CD under \Docu\SystemRequirements or the latest documentation can be accessed on the internet under www.duerr.de/td.

Extension for the adaption of Dürr Dental's intra oral videosystem *VistaCam*

Framegrabber

Needed for video framegrabbing.

Video for Windows (VFW) compatible, digital overlay with Direct-Draw graphic adapters.

i.e.:

Dürr Dental HighEnd (PCI-Slot) with online mirroring or Dürr Dental Standard (PCI-Slot)

Input signal: VHS/ PAL/NTSC/SECAM, Video resolution 768 x 540 Pixel

Foot pedal

Dürr Dental triple-pedal, serial connection (recommended).

Dürr Dental triple-pedal, Gameport (unique).

Dürr Dental triple-pedal wireless, Gameport (unique) or USB-Port.

Extension for the adaption of Dürr Dental's X-ray system VistaRay and VistaScan



The Dürr Dental X-ray image system VistaRay **handles essential data. Loss of this data can cause additional X-raying.** The program was designed to avoid data loss if possible. To guarantee such a stability of the Dürr Dental X-ray image system **it is necessary to keep to the following minimum system requirements:**

Long-term archiving system with durable storage media (MOD, WORM, CDR, DVD-RAM)

Recommended: MOD with fast PCI-SCSI-2 Controller

Parallel interface for VistaRay

Image transmission time: SPP (standard) ca. 8 s. ; EPP oder EPP+ECP ca. 1.5 s

Please remember to set mode SPP, EPP or EPP+ECP during BIOS-Setup!

Recommended: extra parallel interface (LPT+EPP Support) for further parallel printer.

Parallel port for VistaScan

Operating system EPP or EPP+ECP must be set up in the BIOS-Setup!

17" Cathode Ray Tube with 0.26mm pitch distance

Monitor

17" Cathode Ray Tube with 0.26mm pitch distance

Horizontal frequency up to 92 kHz, Vertical frequency to 160 Hz

TCO 95, MPR II, TÜV-GS, CE-labelling

Tested: EIZO T57S, Super Ergo Coat 17" (41 cm) 0.26 mm pitch



Depending on the combination of graphic-adapter/monitor and the current settings (resolution, color depth, contrast, luminance) the quality of the screen image may substantially differ. Particularly the grey levels and the detail precision can differ. If the monitor image is used for diagnostic purposes it will be necessary to check if the quality is sufficient during the constancy checks.

PC printer

In principle all printers usable with WINDOWS 95, 98, NT4.0!

Tested: HP Deskjet 890 C, HP Deskjet 870, EPSON Stylus Color, EPSON Stylus Photo, CANON BJC 7000



Depending on the printer model used, printer settings (e.g. fast print mode with lower quality) and the paper type used, the quality of the printouts may differ. It is recommended to use the quality paper recommended by the manufacturer. If printouts are used for findings or diagnostic purposes it will be necessary to check the quality by printing out the images made for the constancy checks. Printing of an image with DIN A4 format is not recommended for reasons of quality!

Installation

General



- We recommend you carry out a complete backup of the software already installed on the computer before installation of the software.
- If you are using the Dürr Dental X-ray system VistaRay, you should select the EPP-mode for the parallel interface to be used by setting up the BIOS.
- To install the software on your system this system must correspond with the required data set up in the chapter **System Requirements**.

Put the DBSWIN CD-ROM into a usable drive. The installation program starts automatically. If it does not run, please start up the file SETUP.EXE in the root path of the DBSWIN CD-ROM.

Stand-alone installation

To install a stand-alone system you have to choose **Application and database** at the beginning of the installation procedure. You will be guided through the routine and can change the default paths suggested by the program. After successful installation you will find DBSWIN in the Start menu of WINDOWS and as an icon on the desktop

Network installation



Installing the program in a network the DBSWIN database paths must be mapped to the same drives on all workstations used. Therefore in a Windows Workgroup network when you have the database on a workstation, you have to set the mapping at this station using the DOS command **subst** and it will work for most cases.

You have to assign a drive letter to the serverpath (drive) at each workstation using the same DBSWIN database. This drive letter must be identical on each station. In order to avoid any conflict with existing drives, it is recommended that you choose letters at the end of the alphabet (z.B. X, Y oder Z). Keep in mind that all access rights for the new drives must be set.

First workstation / database

Select „**application and database**“ during the installation of the first workstation to install the first workstation and simultaneously the data base on the server. All details up to the page „database directory“ of the installation are related to the local workstation installation. Now assign the database directory to the drive letter which was assigned to the server path before. After completion, a window comes up „**Information for multiuser systems**“. Please note down the path shown, because you will need it for the installation of other workstations. Select all directories resting and complete the installation.

Other workstations

To install another workstation using the network database you have to select „**Only Application**“. All details up to the page "**search database directory**" of the installation are related to the local workstation installation. On this page you select the path you have noted before during the database installation.

Select the DBSWIN symbol of the corresponding group of the Start menu.

Further information

Data backup

Necessity



A backup of the data is absolutely necessary since the failure of the system can lead to a loss of data. It protects you against loss of data due to wrong operation or destruction (fire, water ...) of the system.

This back-up procedure should not be confused with the DBSWIN-Archive, as this serves only to store images together with the relevant data which goes with it

DBSWIN-Data

The image and patient data of a DBSWIN stand-alone default installation are located in the directory „**C:\Dbswin\dbldata**“.

If you have not used the default installation, the paths of the practice data directories can be referred to in the configuration part. For more details on this, please refer to the chapter „configuration“.

Methods

If you want to save the data of your hardisk on a streamer band or another backup media (changeable disk, etc..) you do not have to copy all files every time. The installed program files of for example, Window, Excel or DOS, remain as a rule unchanged. It is not necessary to safeguard this on tape every day.

All changes and new files carried out during a working day should, at any time, be restorable. You should organize your databackup optimally with a combination from the following Backup methods.

Full Backup

All files are saved from all sub-directories of a selected drive.

Every Backup program allows, also during a full Backup, the possibility to exclude specific files or directories, for example, the Backup program itself (this must in any case be installed by diskette, if necessary) or temporary work directories.

Incremental Backup

An incremental backup - unlike the full-Backup – saves only those files which have been changed since the last Backup. Every file has, in addition to the file name and the file date, a number plate or the archive flag. At a full-backup this number plate is deleted, it will be set again at every later subsequent writing access on the file.

You can restore the condition of your PC to an arbitrary day by using one full-Backup. This is particularly useful when you notice a deficiency in a database or a virus infection some days later. The latest Backup could include already deficient files. The incremental backup alone holds a risk however. To get a complete reconstruction of the harddisk of your PC, you first have to restore an old full-Backup. You must feed all calculated incremental backups in succession then. Only in such way is it possible to be sure that all changes are really reconstructed. This may be extremely time-consuming. Therefore it is useful to combine incremental backups and full-Backups intelligently

Backup-Strategies

With a combination of full-Backup and incremental backup you can restore the data at any time until three months.

The procedures described here guarantee, that even should one backup media ribbon be destroyed you will not be left with a loss of great consequence, and never a total data loss. Only the changes of a single day are lost.

The described procedures are suitable of course for every Backup medium, for example for Zip drives or streamers.

You need nine streamer ribbons (or changing mediums) for high datasecurity. Write on this as follows:

Media 1:	Monday
Media 2:	Tuesday
Media 3:	Wednesday
Media 4:	Thursday
Media 5:	Friday-1
Media 6:	Friday-2
Media 7:	Friday-3
Media 8:	Month-1
Media 9:	Month-2

Start with the Backup on a Friday, by writing one full-write Backup on the Media Friday-1.

You put respectively an incremental backup on the corresponding mediums on Monday, Tuesday, Wednesday and Thursday of the following week. You start again one full-Backup on next Friday, use however this time the Media Friday-2. You write from Monday till Thursday respectively again an incremental backup on the media Monday till Thursday in the following week, without deleting the old incremental backups situated on this media. You start again one full-Backup on following Friday and use Media Friday-3. The scheme remains unchanged in the week on this; instead of the not available Media Friday-4 you take the Media Month-1 full-Backup for this.

This Backup scheme recurs for a month then you write one full-Backup on the Media Month-2. The cycle starts from the beginning again.

All media, on which Full-Backups (Friday-1, Friday-2, Friday-3, month-1 and month-2) have been written, must be deleted or typed over before you can use them once more.

You only should delete the media with the incremental backups if the size of the incremental backups requires this every four weeks. Just daily changing database files maximize the incremental backups enormously. The data compression of the Backup software works also more effectively here.

Simplified Backup

For smaller data amounts this Backup scheme can be simplified; then only four media are necessary . Write on this as follows:

Media 1: Monday / Wednesday
Media 2: Tuesday / Thursday
Media 3: Week-1
Media 4: Week-2

Start with one full-Backup on a Friday on the Media Week-1. You write the daily incremental backup to Media1 on Monday and on Wednesday. You take Media-2 on Tuesday and on Thursday.

On second Friday you use Media Week2 (Media 4) for a full-Backup.

The cycle starts from the beginning again. With this scheme the data of up to three weeks can be reconstructed.

Equipment

Disk drives are not suitable as Backup devices for DBSWIN because of the low data amount and the low data security.

In principle any drive can be used for Backup.

Here are some examples:

Media drives (Streamer)

Changeable hard disk (Syquest, Iomega, ...)

Iomega Zip-Drive

MO-drive (Fujitsu, 3M, HP, ...)

CD-Writer / Rewriter

DVD-RAM

DVD-R

DVD+R