Index

SOFTWARE FOR OWAS ANALYSIS

Introduction

OWAS is a method for the evaluation of postural load during work. The **OWAS** method is based on a simple and systematic classification of work postures combined with observations of work tasks. The method can be applied, for example, in the following areas:

- development of a workplace or a work method, to reduce its musculoskeletal load and to make it safer and more productive
- planning of a new workplace or work method
- ergonomic surveys
- occupational health surveys
- research and development

WinOWAS has been developed to help in carrying out the OWAS analysis.

User's manual

This manual has been written in Windows NT 4.0 environment. Therefore the screen captures might differ from yours depending on the Windows version that you use.

Copyright

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Installation requirements

*Win*OWAS software requires Microsoft Windows -based operating system. The table shows minimum requirements for different versions of the operating system.

	Windows 3.1x	Windows 95	Windows NT
Processor	386	486	486 (Pentium)
RAM; Mb	8	16 (8)	16 (24)
Hard disk space; Mb	~ 1 Mb	~ 1 Mb	~ 1 Mb

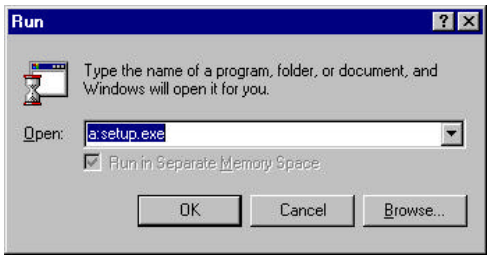
Installation

If you have previous version of OWAS software installed, please install WinOWAS to a different directory.

Software is delivered on one 1.44 Mb 3.5" diskette. Please make a backup copy of the installation diskette before starting installation.

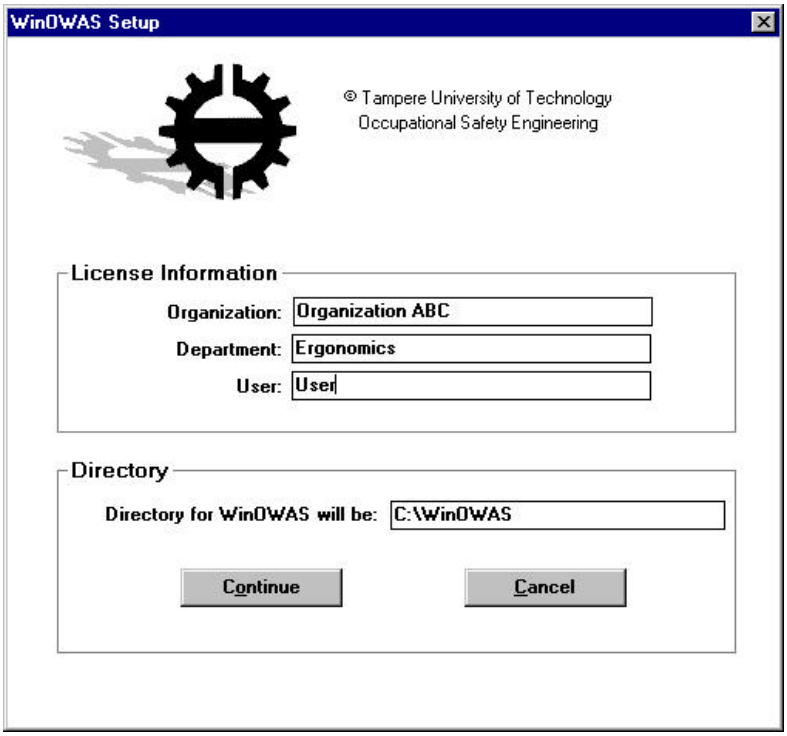
Start the installation as follows:

1. Select `Start | Run`.
2. Type `a:setup` and select `<OK>`.

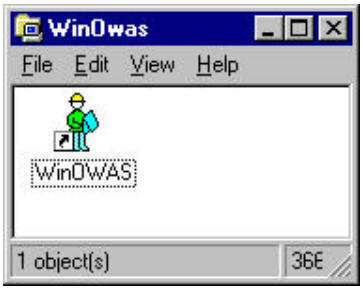


(If your operating system is Windows 3.1x, you can start the installation by selecting `File | Run` from Program Manager.)

3. Fill in the license information.
4. Select *Win*OWAS default directory for program files. (default: `C:\WinOWAS`). If the directory does not exist, the setup program will create it..
5. Accept by selecting `<Continue>`.



6. Wait for a moment… the program is copying files to the hard disk, creates *Win*OWAS -folder and program icon, and informs you of completing the setup.



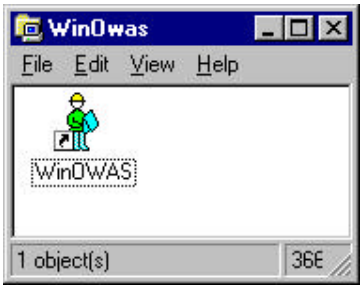
After setup you can start the program by double-clicking the *Win*OWAS icon.

7. In order to keep your data files separate from the program files you should create directory for your data. (e.g. `C:\WinOWAS\DATA`).

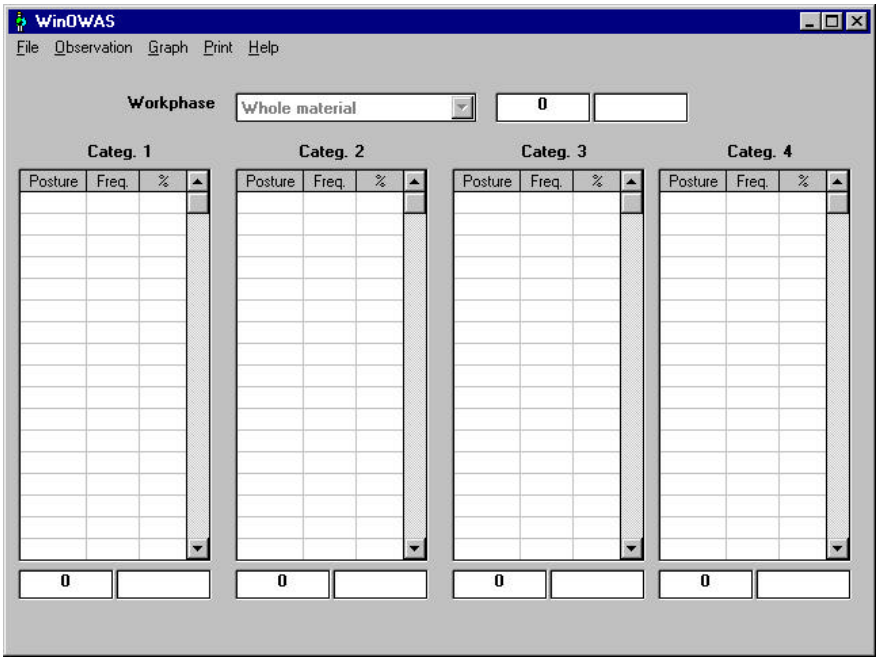
USE OF THE SOFTWARE

Starting the program

Program is started by double-clicking the *Win*OWAS icon.



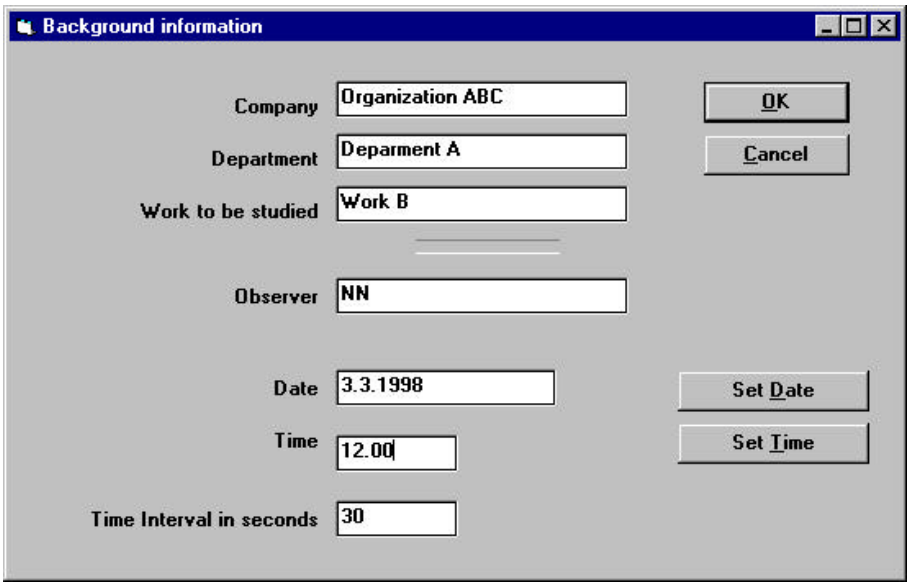
Main interface of the program



The figure shows the main interface of the *Win*OWAS.

Entering background information (<F3>)

Before beginning observation you should enter background information of the analysis. You can select the function from the menu `Observation | Define Background Information` or by pressing the function key `<F3>`.

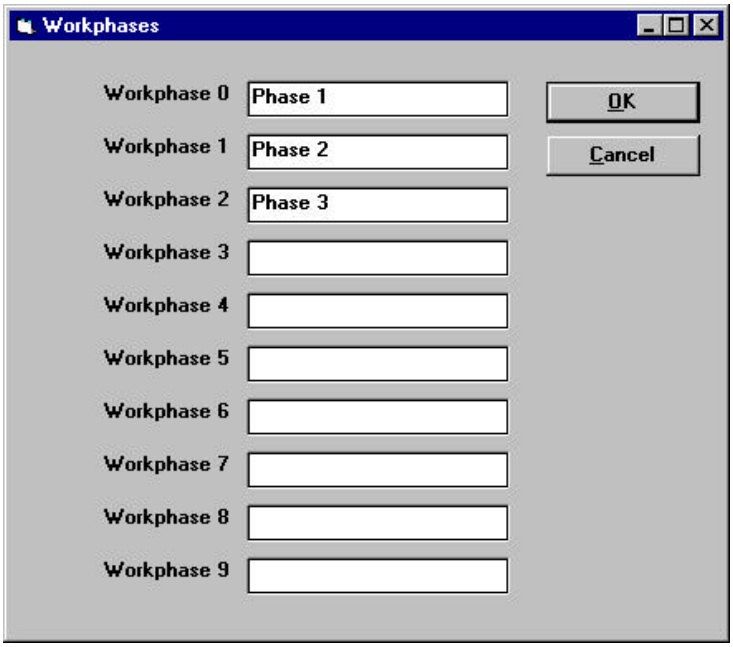


You can define this information freely. By selecting `<Set Date>` and `<Set time>`, the fields are filled according the system settings.

Defining work phases (<F2>)

You can divide the work into work phases. This will let you analyse the work as a whole or phase by phase.

*Win*OWAS lets you divide the work into 10 phases. You can name each phase freely. Work phases are numbered from 0 to 9.

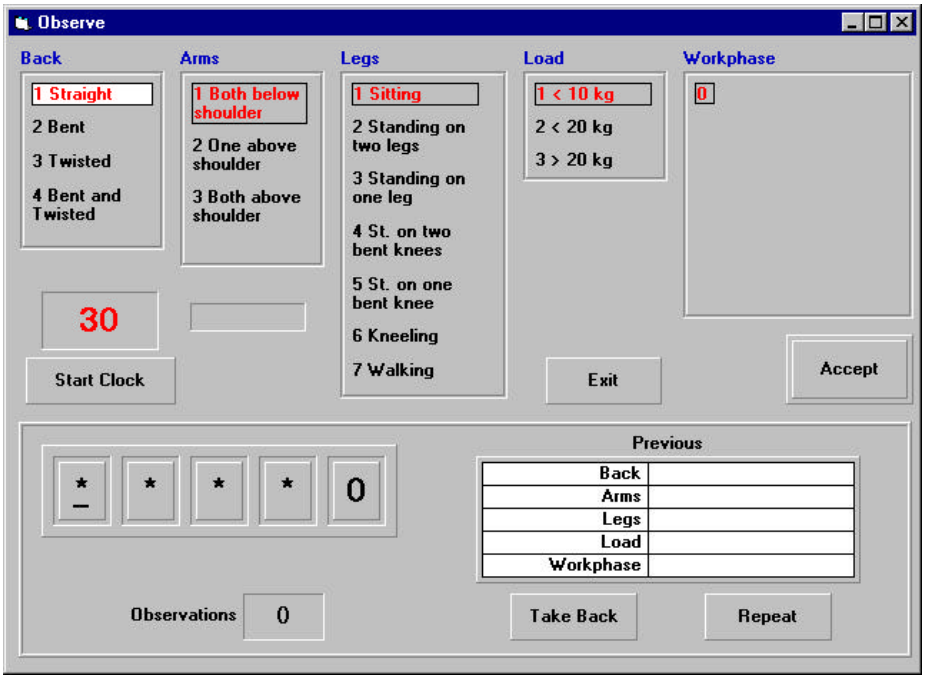


OBSERVATION <F4>

If you are now ready to start observation of working postures, you can start the observation by selecting `OBSERVATION | Start` or pressing <F4>.

A dialogue window will appear on the screen. In this window there are code numbers for working postures, loads and work phases according to OWAS-method.

The observation is expressed in 5 number code (*****), where the first number means the posture of back (1-4), second number the posture of arms (1-3), third number the posture of legs (1-7) fourth number the load (or use of force) and fifth number the work phase analysed.

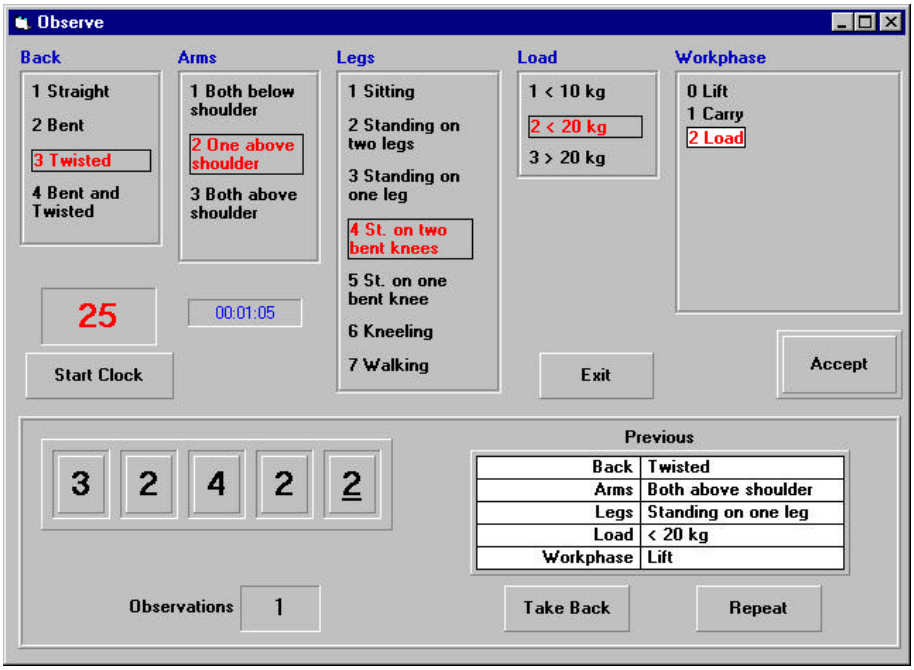


Current selections can are "boxed". <Take back> removes the observation, <Repeat> will repeat the latest observation.

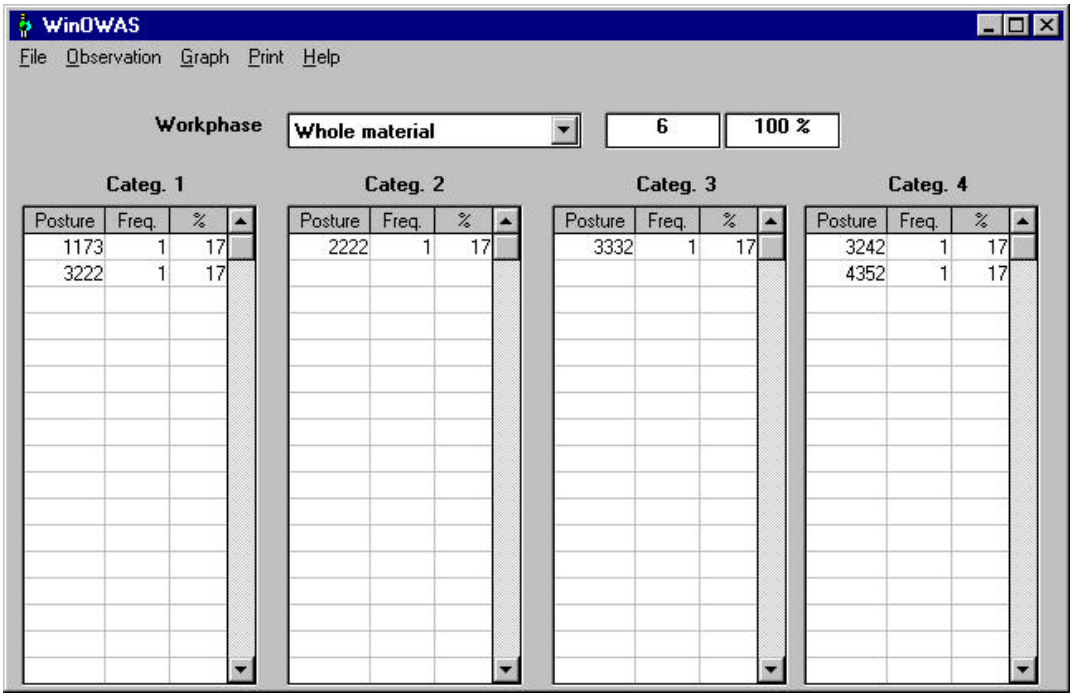
*Win*OWAS -software has a timer, which can be used to measure the observation phasing. When observation interval is passed, the software will give an audio signal to the user.

The observation is started by clicking <Start Clock>. This will start the timer. The phase for observation is given in Define Background Information, <F3> (Default 30s).

The selection of correct codes for work posture can be done either using mouse or numeric keys. Meanwhile the code for working posture is updated on the screen.



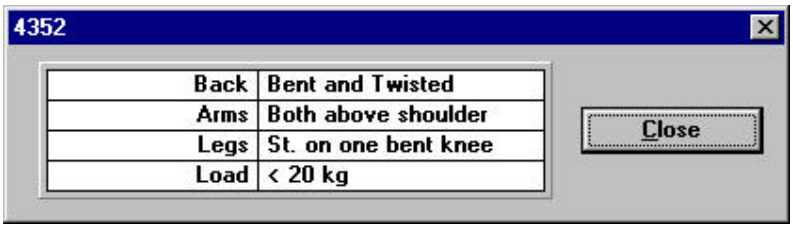
When observations are done, select <Exit>. This will bring the main user interface to the screen with the result of the analysis.



This is the good time to remember to save the observation data. Saving information is done by File | Save or directly by pressing <Ctrl-S>.

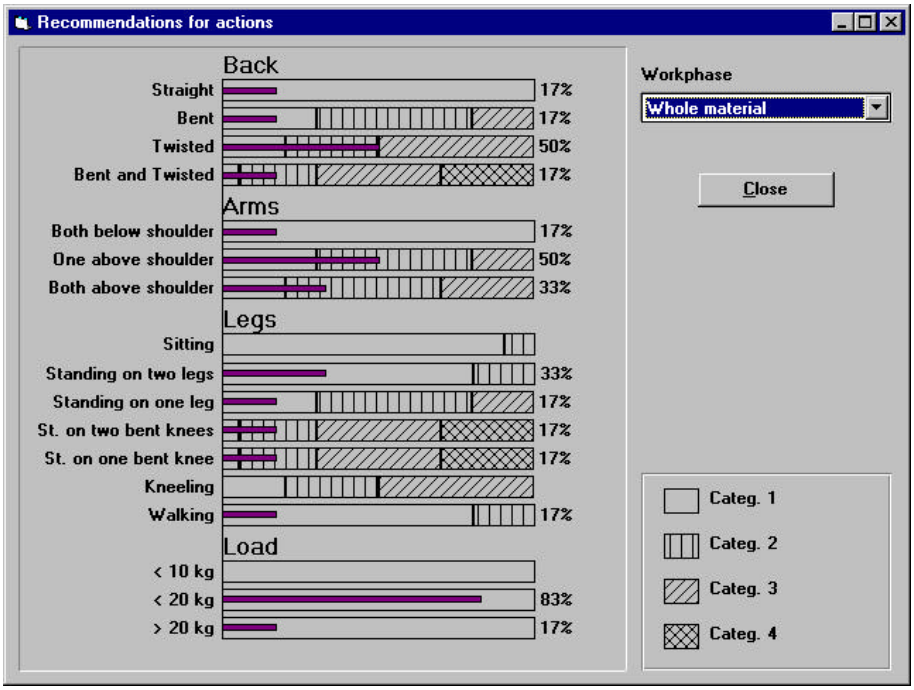
IMPORTANT! If you are saving the observation data by `Save As` - function and give the same directory and filename that already exists, the software will overwrite the old file without warning beforehand.

On the main screen you can get detailed information about working postures by clicking the code.



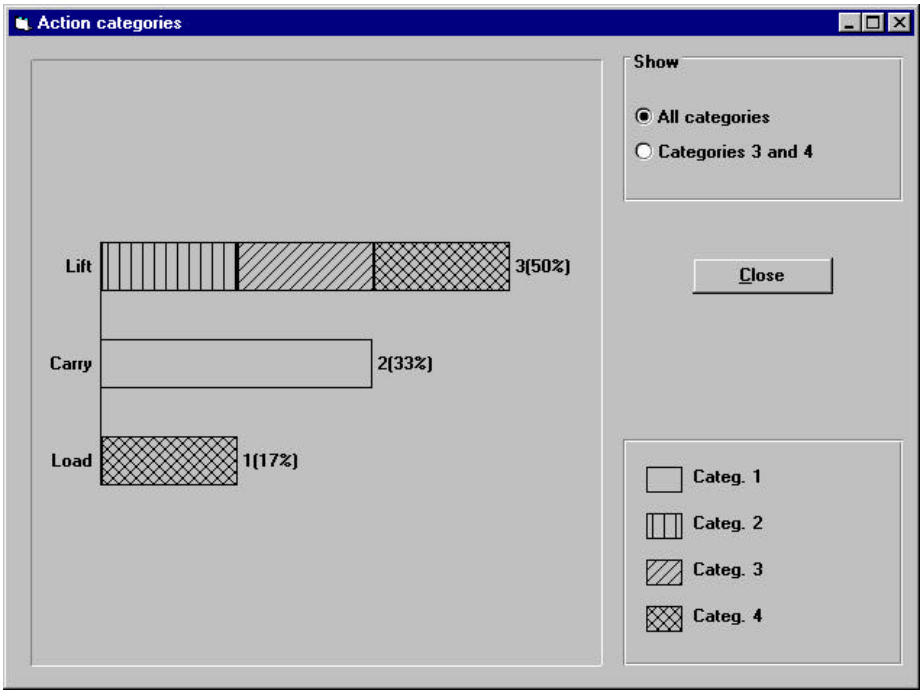
Recommendations for actions

By selecting `Recommendations for Actions` from Graph menu you will get a display showing action categories in graphic format. Observations can be analysed as a whole or by each work phase separately. The length of the bar in graph shows the action category.



Action Categories

By selecting `Action categories` from Graph-menu, you will get a display showing action categories by amount/percentage. You can display either all categories or categories 3 and 4.

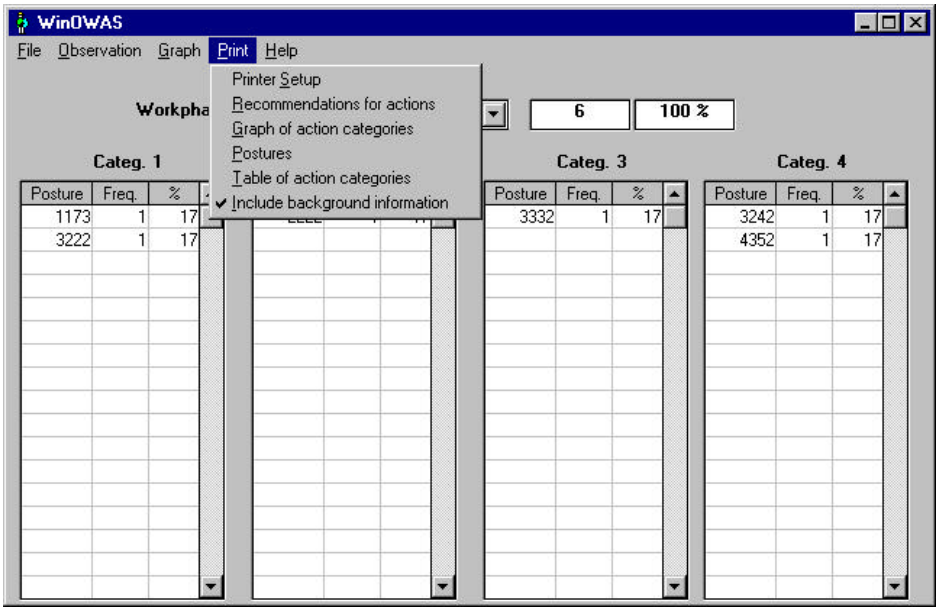


You can select `Use Colours` or `Use Fill Pattern` from Graph-menu. This will select how *Win*OWAS will display graphs.

Printing

You can select the following prints in *Win*OWAS:

- Recommendations for actions
- Graph of action categories
- Postures
- Table of action categories



Print-Recommendations for actions

By selecting `Print|Recommendations for actions` you will be asked to select the names for printed work phases. If you want to select all work phases, select Whole Material.

Print-Graph of action categories

Here you can select if you want to print a graph of all action categories or only categories 3 and 4.

Print-Postures

By selecting `Print|Postures` you will get a print showing all posture codes which were used in the observation.

In the print the posture code, the action category it represents, the amount of postures and its percentage of the whole material is displayed.

Because **all** posture codes are printed a “warning” dialogue is displayed to you, and you have to confirm that you want to print them.

Print-Table of action categories

By selecting `Print|Table of action categories` you can print number of postures in categories and by work phases.

File-menu

The File-menu has following actions:

Delete:	Deletes an *Win*OWAS file from a disk or lets the user to "empty" the content of a *Win*OWAS file
Open:	Opens an existing *Win*OWAS file
Open DosOwas file:	Opens a file created by OwasCO/OwasAn-programs
Save:	Saves a *Win*OWAS file
Save As:	Saves a *Win*OWAS file and lets the user to select path and filename
Join file:	Lets the user to join several *Win*OWAS-files **IMPORTANT!** When joining the *Win*OWAS files, the work phases must be identical in both files.
Exit:	Ends *Win*OWAS

Copying data to word processor

Files created by *Win*OWAS program can be opened and edited with word processing software. You should open the *Win*OWAS file as a DOS text file.

Contact information

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