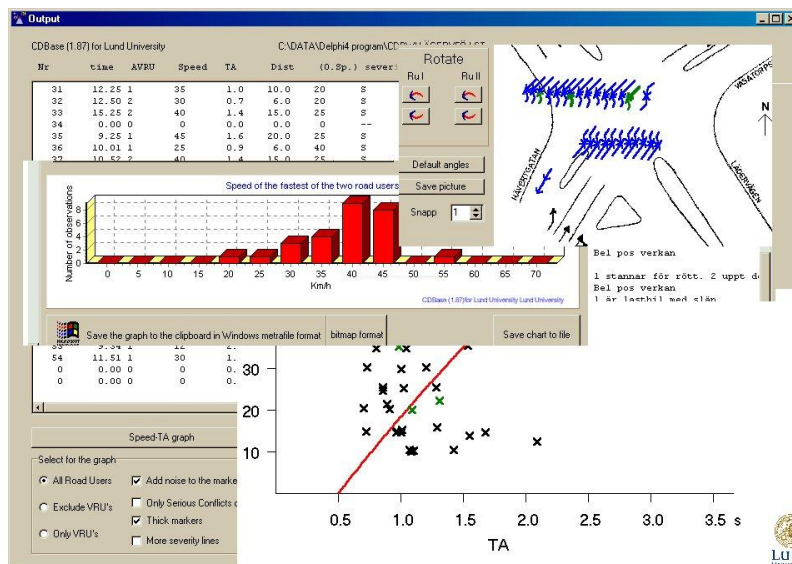CDBASEW.EXE (v1.87)

Short manual for

CDBasew.exe

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Lars Ekman

Short manual for CDBasew.exe for Windows

Referat:

En kort manual som beskriver handhavandet av databasprogrammet "CDBASEW.EXE". Programmet är avsett att lagra och analysera konflikter observerade enligt den svenska konfliktktekniken.

> **Comment [LE1]:** Max 150 ord

Abstract:

A short manual describing the use of the database program "CDBASEW.EXE". The program could be used to store conflicts recorded according to the Swedish Traffic Conflicts Technique.

> **Comment [LE2]:** Max 150 ord

Homepage: http://www.tft.lth.se/research/Traf.htm

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Short manual for CDBasew.exe
for Windows
By Dr. Lars Ekman

CDBASEW.EXE is a database program aimed to store and analyse studies carried out with the Swedish Traffic Conflicts Technique (Hydén, 1987). The basic structure of the program is that a recorded conflict is treated as one "record". This record is represented as one page in the "base frame".

Figure 1.   Example of the base frame of the CDBASEW.EXE program

The output of the program is both in graphic form and in ASCII-files for further analyses in a spreadsheet program such as Excel or printing in an ordinary word processor. Other outputs are graphic illustrations of TA to Speed graphs, Speed distributions, and mapping of the conflicts on a map of the intersection (see section on file formats).

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The structure of the program

The program structure is based on a base frame, which is supposed to be equivalent to one conflict recording sheet. The layout is supposed to imitate the layout of the recording sheet. In addition, there are some additional frames regarding output, mapping, and further description.

The upper part of the base frame deals with background date, often similar for several conflicts. The middle part is used for the essential information regarding the specific conflict. Most of the data are exactly found on the recording sheet. In order to map the conflicts, each primary road user has to be defined by the direction. The available directions are shown in the lower right graph. The directions 1 to 12 are describing vehicles and the directions 13 to 20 could be used for pedestrians.
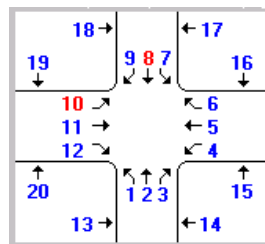

**Figure 2. Directions of the two
primary road user**

Regarding the information in "Description" and "Other info", it is highly recommended that these are written in a systematic, way since there is only room for 60 characters in the database. They may also be coded. For a longer description see the section "Write a long description" below.

In addition there is a series of different features reached by push buttons.

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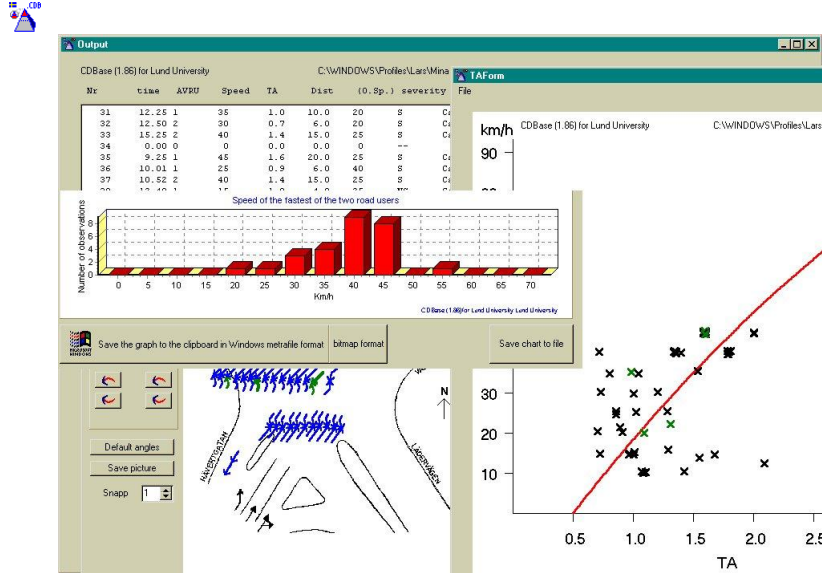**Appendix B**

Figure 3. Some of the outputs

It is highly recommended that data regarding each intersection will be saved in a unique file. Another file should be created for the next study, such as the after study. There is no way for a database file to be split, but there is a program that can add files together for general analyses. This program is called "Add.exe".

Getting started

Copy the files "CDBASEW.EXE" and "Standard.bmp" to the directory for your conflict analyses. It is recommended to create a new directory for each project since the program creates several different output files. The Directory could be called CDBW, or preferably a name related to your project. The program is started by executing the CDBASEW.EXE file. A shortcut on the desktop could be handy.

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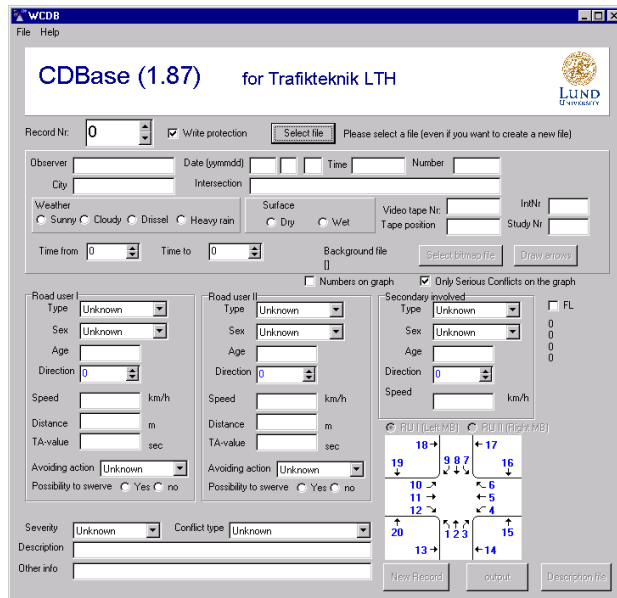When the program is started, the base frame will be shown.

Figure 4.   Base frame in "Start-up state"

The work starts with "selecting a file". If you are about to start a new project, a new database file needs to be created. In both cases, you should press the button [Select file]. If a new file should be created, cancel the opening procedure and create a new file by naming it under the save file window.

The is are saved constantly when the [☐ Write protection] is not checked. When "Write protection" is on, data will not be stored. When the file is created and the Write-protection is off, it is just to fill in all data about the first conflict. The base frame is supposed to correspond to the conflict-recording sheet used in the field. When all available information about the current conflict is recorded, the conflict could be mapped on a simple drawing of the intersection.

Mapping

The mapping processed is started by pressing the button [Draw arrows]. If no "background file" is selected the program will ask for a background file. The background file is a simple drawing of the intersection in BMP-format. One background file is provided with the program. It is called "Standard.bmp". Either this could be used or a modified version could be used. It is important that the format of the background file is correct. The file has to be in BMP format with 640x480 pixels and 16 colours. The easiest procedure is to open the standard.bmp file in Paint or any similar program and then modify it in accordance to

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the appearance of your current intersection. Remember to keep the drawing simple, otherwise it could be difficult to see the patterns of the conflicts.
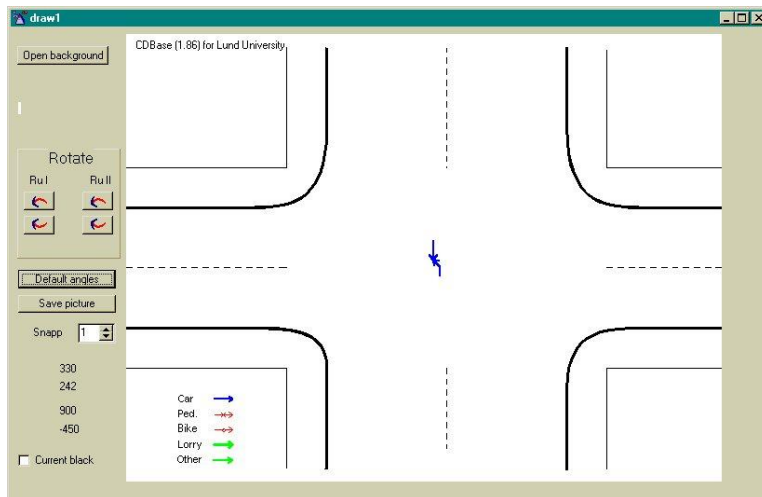

Figure 5. Mapping the conflict

In the mapping window, a pair of arrows representing the two prime road users could be mapped. The arrows are located with the mouse and each arrow could be rotated with the buttons in the upper left. The size of the grid-net could be set by the "snap" function. The "snap" function could be used to locate a series of conflicts appearing at the same location. Due to settings on the base-frame only serious conflicts might be mapped, and identification numbers might appear in the picture. The number appearing at the picture is, however, not the record number but the identification number derived from the recording sheet.

Note that the label of the different types of arrows belongs to the background file.

The lengths of the arrows are as standard proportional to the speed of the road user. This feature could be turned off by checking the [☑ FL] box on the "base frame".

It is of course possible to rearrange each pair of arrows afterwards. You just go back to the record you want to move. In order to know which pair of arrows you are about to change you may use the [☑ Current black] function on the mapping window. Then it is easier to know which pair of arrows you are about to change. Remember to switch it of before saving the picture file.

When all the conflicts are mapped a graphic file could be saved with the [Save picture] button. It will then be saved in bitmap format with a name ending with "-cc.bmp". (See the Output section for the naming of different files)

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Create a new record

Before creating a new record you should ensure that all "background information" is properly filled in, since when creating a new record some general information is copied to the new record, this is done to speed up the recording procedure.

In order to add a new record, press the [New Record] button.

Write a long description

The description under "Description" and "Other info" is restricted to 60 characters stored in the database. In order to create a longer description stored in a specific file press the [Description file] button. Then a new window will be opened. This is a simple text editor with some possibility for formatting the text. In this editor you may create a new file. This file is a separate file for this specific conflict. Some information is feeded in to the editor in order to identify the conflict described. Note that the information written in this file is not stored in the database file and thus not included in the other outputs such as the list file (*.lst).
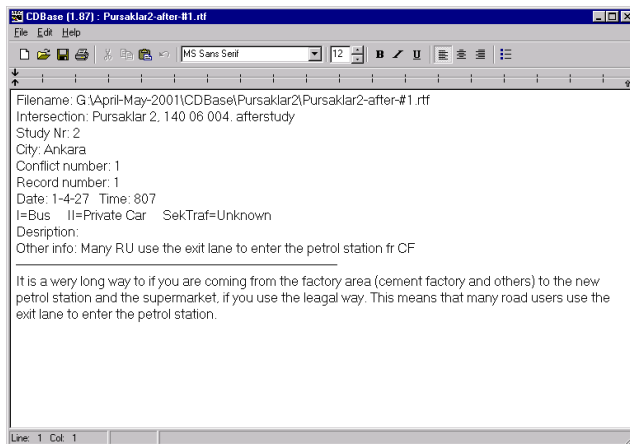

Figure 6. Example of an extended description stored in the file: "Pursaklar2-after-#1.rtf"

Output

The program uses the following file types. In the following example the files are named as the project "Test".

Filename	Type of file	Remarks
Test.cdb	Database file	This is the actual database, where all the data is stored.
Standard.bmp	Graphic file in bitmap format	This is the standard background file for mapping the conflicts. It is highly recommended to create a study specific background image.
Test.bmp	Graphic file in bitmap format	The standard.bmp file, modified to suite the "Test-project".
Test.LST	ASCII-file	A plain file with the data in a format that is suitable for word processors or spreadsheet programs (for example Excel). Note that there are two different sizes of this file. Normally only the basic data are written to the file. It is also possible to save a "full list" ⦿ Full list . Then all data are stored in this file.
Test-cc.bmp	Graphic file in bitmap format	This is the picture of the mapped conflicts. Pairs of arrows on top of the simple drawing of the intersection
Test-TA.bmp	Graphic file in bitmap format	This is the picture of the TA – to speed graph.
Test-Mspeed.dat	ASCII-file	A plain file with the highest speed in each conflict stored in a long row.
Test-#5.rtf	RTF-file	This is a file in general word processing format. The RTF-format is readable in programs such as Word. In this file a longer description is stored for the specific conflict. In this case it is for conflict number 5.

System requirements

The program is designed to work on Windows 95/98 or Windows NT. The program is designed for a 1024x768 resolution on the screen and small font size. With other screen settings, some of the frames might be partly hidden. Since the program is working towards an open database file, the program must have write access to the files.

Back-up

Since the program is working directly towards the database file and are rewriting on existing files without warning, it is highly recommended that back-up files are saved regularly.

References

Hydén C., (1987), Bulletin 70, The development of a method for Traffic Safety
        Evaluation: The Swedish Traffic Conflicts Technique. Department of Traffic
        Planning and Engineering, Lund Institute of Technology. Sweden.

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