

Documentation for Karnaugh Diagram V1.06 by C.A.H. Lucas.

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Introduction

When the HP-50G came into the market, I wanted to do something with that large display, and because I love to work with digital electronics, I got the idea to create a program that would help me make Karnaugh diagrams. After a number of versions I have created this program that is now ready to be distributed. The first version of this distribution is 1.06. I hope that this program make more people happy to work with Karnaugh diagrams. Anyone who wants to give comments are welcome to do so, and who wants to work on program improvement can contact me.

Features

- Supports 2, 3, and 4 variables
- Supports, besides logical 0 and 1, also don't care's
- Insertion of a diagram label
- Input variable names with one character
- Sorting and reversing of variables
- Gives a choice of two layout's
- Has graphical input of minterms
- Saving diagrams with a label
- Recall of previously saved diagrams
- Printing of diagrams
- Automatically go to a working directory
- On program exit, jumps back to previous directory
- Saving of your machine settings

How to go to your working directory?

In this example I assume that you have a directory in HOME with the name "DIGITAL". A subdirectory thereof called "KARNAUGH", you want to use as your working directory for this program. Make a list: { HOME DIGITAL KARNAUGH }, and store it in the variable 'KDPAR', in the HOME directory. Now, every time you start up the program, you get into that directory. After you have quit the program, you go back to the previous directory.

How to make a Karnaugh diagram?

After the command "KD" is typed, press ENTER, and you'll get the message 'No" diagram'. Via the menu button 'NEW', you get a choosebox, which prompts you for the number of variables. Press OK, and you get an inputform where you can input label, variable names, and options. After you click OK again you get a Karnaugh diagram with the number of variables that you have chosen. The cursor is at the beginning always on index 0. Now you can start filling the diagram, by using the key's 'X', '0' and '1'. The index is automatically increased by 1. It is possible to turn this off with the key [+/-]. Besides [NEXT] and [PREV], the cursor keys are also active. When you're done, you can disable the cursor, and if necessary print the diagram.

Operating Karnaugh diagram

[NEW]	Create a new Karnaugh diagram.
[CURS]	Switch the cursor on or off.
[ALT]	Switch between normal and alternative layout. This is also possible outside the program, with user flag 22.
[PRINT]	Print the diagram, depending on system flag -34 on the HP 82240B infrared-, or a serial printer. This is tested on the 82240B, not on a serial printer. Cancel print operation by any key.
[QUIT]	Quit the program.
[STO]	Saves the diagram in a variable with the name of the label. Dots are ignored, and spaces are replaced by the symbol '~'. This will not work if no label is created.
[RCL]	Recall of previously created diagrams, as present in the current directory.
[NEXT]	If the cursor is active, increases the index by 1. If the index has reached the highest value, the index will decrease to zero.
[PREV]	If the cursor is active, decreases the index by 1. If the index value reached zero, the index increases to the maximum value.
[CLEAR]	Clear the screen.
[+/-]	Turn auto-increment on or off (controlled by userflag 21).
[X]	Put a 'X' on the location of the cursor.
[1]	Put a '1' on the location of the cursor.
[0]	Put a '0' on the location of the cursor.
[ENTER]	Put a copy of the screen as a grob onto stack level 1.
[OFF]	Turn off the machine.
↩ ↪ ↻ ↺	The cursor keys are also active when the cursor is on.

Known issues

Printing is still slow.
Cancelling print operation works not always fine.

Contact

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