

## HCADwin documentation (short)

### What is HCADwin?

**HCADwin** is a drawing program for functional logical diagrams. Normally a functional diagram contains more than one page. **HCADwin** keeps those pages together as a project. A project or a part can be printed. A project can be simulated to check correctness.

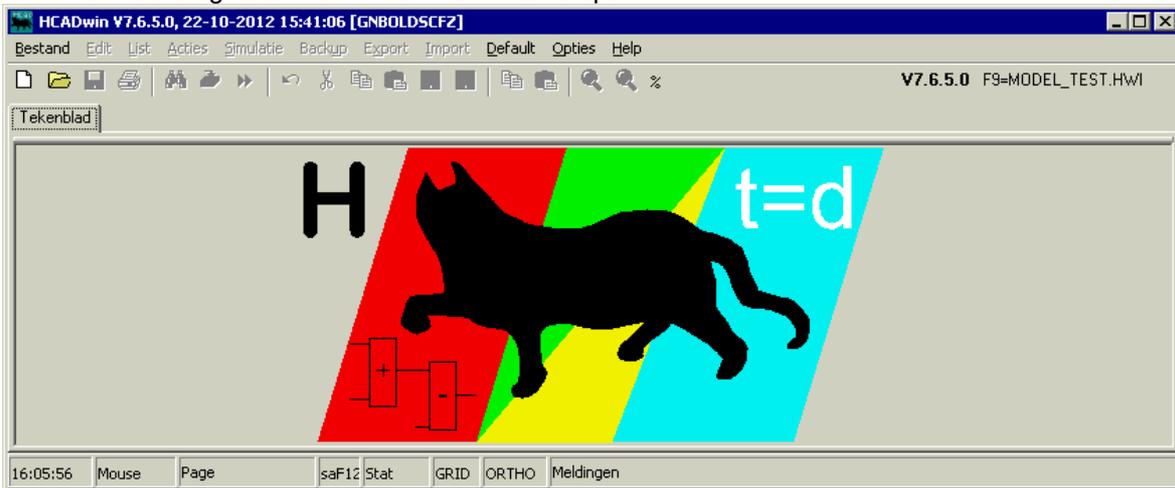
### How to start HCADwin?

After starting **HCADwin**, by clicking **HCADwin.exe**, the screen becomes gray and shows menu on top and a status bar on the bottom. The menu starts actions. Use "**Opties, Select Language, 2**" to get **HCADwin** displaying everything in English instead of Dutch.

When installing **HCADwin** the directory "C:\HCADwin\" is assumed to be the destination, but can be altered. When creating projects, the install directory will be the default root for new projects, but this location can also be altered. Read the built in "Read Me".

### Open a project.

**HCADwin** expects a project to be opened. Use "**File, Open Project**" for existing projects and indicate one in the file dialog. Use the HWI or HCE files to open.



Use "**File, New Project**" and enter your project name for new projects.

The name is used to create a subdirectory (=proj) in C:\HCADWIN\Proj and project files proj.HWI and proj.DBF. You can move or rename those files later.

The drawing tab is activated, showing the actual page.

### What is shown?

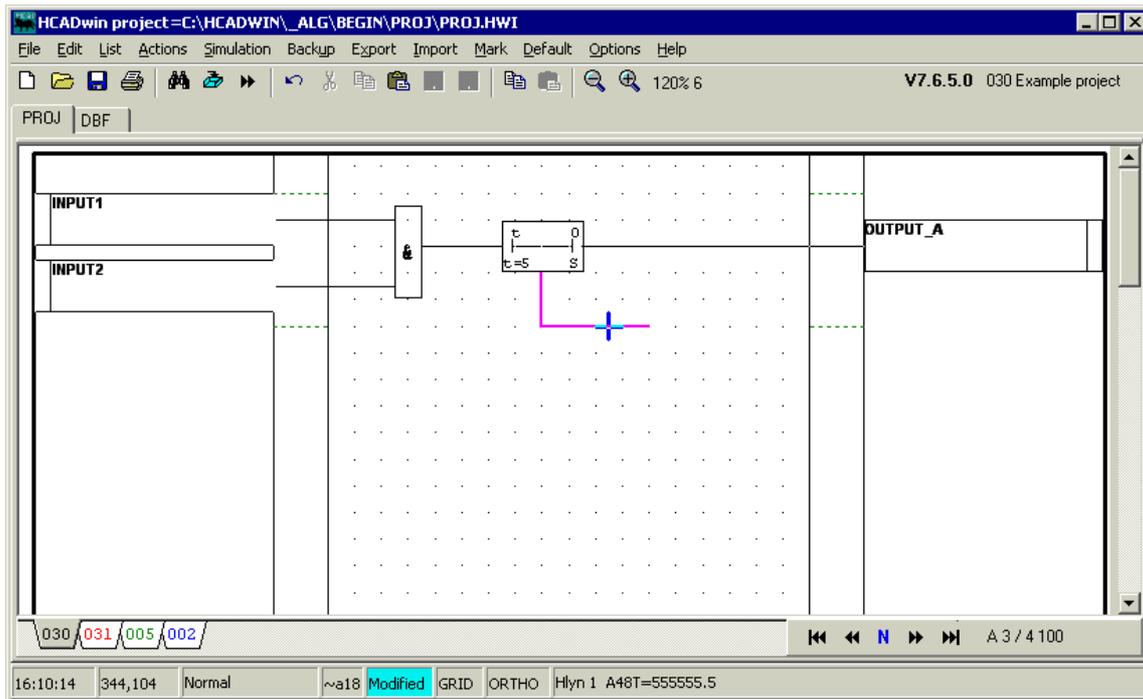
The screen can show the complete page or a part of it. Use the zoom functions **<Ctrl>+** or **<Ctrl>-** or the zoom tool buttons to get what you wish. If the page doesn't fit, the scrollbars are shown. By using **+** and **-**, or **<Shift>+** and **<Shift>-** you can manipulate the screen also.

On a normal page **two vertical lines** are drawn both on the right and the left side. The page gets there for an input section on the left, a logic part and a output section.

Move your mouse and you'll see the **cursor** moving. The **HCADwin** cursor is blue on the grid and green elsewhere. The dots show the grid partly. Most symbols are aligned automatically.

For visiting pages you could use the lower tabs. Most left the page number is shown.

The arrow buttons next to these tabs can be used to go to the first, previous, **New**, next or last page of your project.



The normal page shows the **cadre** also, where page title, number and revision information can be found.

## Drawing

HCADwin drawings contains objects connected with lines. The object library is called LIB and can be altered or extended.

Give an **"I"** command to start the symbol selection. (or right click) Be sure no symbol is selected at that moment.

Now choose a symbol by first opening a symbol category (like "Logic") and select a mnemonic. The second click (or double click) will show the symbol in blue for positioning. Do **<Enter>** or click when ready. Some objects will generate some dialog too.

## Move Object:

Place the cursor on the object to select it. Give a **"M"** command. The object turns **magenta** and can be moved. Connections can be saved when using the **"R"** for rubber banding. The object turns **red**, like the lines and can be moved.

## Change Object:

Place the cursor on the object to select it. Give a **"C"** command. The object turns **green** and can be resized (if allowed). The dialog will start again for parameters (or TAG information).

## Copy Object:

Place the cursor on the object to select it. Give an **"I"** command. The selected symbol will be duplicated and inserted. Objects with a TAG name ending on a number will get a tag name with the number part incremented.

## Delete Object:

Place the cursor on the object to select it. Give a **"D"** command.

## Undelete Object:

Give a **"U"** command and select a recent deleted object.

Use **F1** for a list of all commands.

## Draw lines to connect object:

Place the cursor between two objects and give a “H” or a “V” command.

Or left click (not on a symbol) and see the cursor shape changing. Position this new cursor and click, and move, and click and move, ... Stop against a symbol or the border, or click while the new line has length zero.

**Grid** and **Ortho** are supposed to be active both for the normal connecting lines. Drawing lines without them creates Slope-lines (Slyn) for nice drawing only.

A “C” command on a line will extend the line.

## Inverters:

Get an “Inv” symbol using the “I” command (Logic). It will show a small circle. Place it (while in Moving mode) on a line. The position is not critical. **HCADwin** will position it on the line start/end.

## Block copy, delete:

Place the cursor on the top left of some object, press the left mouse button and keep it down while moving to the bottom right. A dotted rectangle is shown. Now the cut and copy buttons can be used. After a cut or copy the paste can be used (on any page)

## Page informatie:

Give a “B” command. Now you can enter the page title or change the page type. Use **F1** for more help.

## Print pages:

Use the print icon on the tool button bar. Select the pages you want and press Print. The current page is always selected automatically.

## Close your project:

Just exit **HCADwin** or use “**File, Close Project**”. Your project is always saved, no matter how you stop.

## Save your project:

Click on the Floppy icon. Project is always saved when opening another project or closing **HCADwin**.

## Create Backups:

Normally **HCADwin** generates the backups automatically. But “**Backup, Pack and Go**” will generate a HCE file. The HCE file is created, including all referenced files, very suitable for emailing your project.

Since V5.3 the online Help Web is introduced covering all above items in greater detail.

Just install **HCADwin** and follow the instructions in the Read Me.