

## NAME

helios - graphical user interface for the space layout verification system

## SYNOPSIS

**helios** [X options] [-v] [project]

## OPTIONS

Beside the standard X Toolkit options (e.g. to set the display, the geometry, and the foreground color of the program), the following other option may be specified:

**-v** Print version of this program.

## DESCRIPTION

*Helios* is an X Windows (OSF/Motif) based graphical user interface for the *space(IICD)* layout verification system. The interface can be used to import layout descriptions (e.g. gdsII), extract a circuit description from it, retrieve circuit descriptions (e.g. EDIF or SPICE language) start simulations etc.

## COMMANDS

Commands are organized in six PullDown Menu's (i.e. *Database*, *Layout*, *Extractor*, *Circuit*, *Options* and *Help*). This MenuBar buttons can also be activated by typing the <Meta> key and the mnemonic character (the mnemonic is the character that is underlined). Commands in the PullDown Menu's can also be activated by only typing a mnemonic character (Note: This mnemonic can be turned off, if you are using accelerator keys). Default, a "QuikRefWin" window will be shown that gives a short explanation to each command that is pointed at.

Below the commands at the left, there is an area where the cells are listed that are present in the current project and where the selected cell is shown.

Below the commands at the right, there is an area where the output of the tools is shown.

## HELIOS SESSIONS

When started, helios looks in the home directory of the user for a file **.helios**, which has the following format:

```
OpenedDatabase /home/user1/projects/myIC
PrevisDatabase /home/user1/projects/myIC2
```

The first line contains the name of the project database opened last time you ran helios, the second line contains the name of a previous project database you have not opened last time. Both types of line can be present 0 or more times. Helios uses the first 'OpenedDatabase' entry as the project to start with. You can force helios to start with another project by specifying the absolute or relative path on the command line as the last argument.

You can run helios in any directory. Using the command "Database -> Open" you can open an existing project database and with the command "Database -> New" you can create a new database.

## X WINDOWS RESOURCES

For *helios* various colors, fonts, and other X Windows resources are specified in the file *\$ICDPATH/share/lib/app-defaults/Helios*. You may override this information by copying the file and making appropriate changes, and then by setting your X Windows resources, e.g. by running the tool *xrdb*

```
% cp $ICDPATH/share/lib/app-defaults/Helios .
(modify the file Helios)
% xrdb -merge ./Helios
```

## X WINDOWS LIBRARY PATHS

For *helios* on Sun systems it may be necessary to set the following environment variables in order to notify X Windows where it can find certain libraries:

For finding the directory with X Windows native language support stuff

```
% setenv XNLSPATH /usr/lib/X11/nls
```

For finding a key symbol database

```
% setenv XKEYSYMDB /usr/lib/X11/XKeysymDB
```

The paths may of course be somewhat different on other machines.

## AUTHOR

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## FILES

```
~/ .helios
```

saved project name

```
helios.defaults
```

saved settings

```
$ICDPATH/share/lib/helios.message
```

explanations to helios commands

```
$ICDPATH/share/lib/app-defaults/Helios
```

X Windows resources for helios

```
$ICDPROCESS (optional)
```

default technology directory for a new project

```
$ICDPATH/share/lib/process/name/default_lambda
```

(optional) default lambda for a new project

```
$ICDPROCESS/default_lambda
```

(optional) default lambda (alternative location)

## X DEFAULTS

Examples of ".Xdefaults" key binding values are:

```
helios*ShowCmdLine_Btn.accelerator:  Ctrl<Key>C
helios*ShowCmdLine_Btn.acceleratorText: Control+C
helios*ShowQuickRef_Btn.accelerator:  Ctrl<Key>Q
helios*ShowQuickRef_Btn.acceleratorText: Control+Q
helios*ManualPage_Btn.accelerator:    Ctrl<Key>W
helios*ManualPage_Btn.acceleratorText: Control+W
helios*AboutButton.accelerator:       Ctrl<Key>V
helios*AboutButton.acceleratorText:   Control+V
helios*HelpButton.accelerator:        Ctrl<Key>H
helios*HelpButton.acceleratorText:    Control+H
helios*ShowUsedFiles_Btn.accelerator:  Ctrl<Key>F
helios*ShowUsedFiles_Btn.acceleratorText: Control+F
helios*LoadSettings_Btn.accelerator:   Ctrl<Key>B
helios*LoadSettings_Btn.acceleratorText: Control+B
helios*RemoveButton.accelerator:       Ctrl<Key>K
helios*RemoveButton.acceleratorText:   Control+K
helios*NewButton.accelerator:          Ctrl<Key>N
helios*NewButton.acceleratorText:      Control+N
helios*SaveAsButton.accelerator:       Ctrl<Key>S
helios*SaveAsButton.acceleratorText:   Control+S
helios*NewTechButton.accelerator:      Ctrl<Key>T
helios*NewTechButton.acceleratorText:  Control+T
helios*OpenImpButton.accelerator:      Ctrl<Key>U
helios*OpenImpButton.acceleratorText:  Control+U
helios*DeviceModelButton.accelerator:  Ctrl<Key>G
```

helios\*DeviceModelButton.acceleratorText: Control+G  
helios\*SimeyeButton.accelerator: Ctrl<Key>Y  
helios\*SimeyeButton.acceleratorText: Control+Y  
helios\*DaliButton.accelerator: Ctrl<Key>Z  
helios\*DaliButton.acceleratorText: Control+Z  
helios\*LoadLayout\_Btn.accelerator: Ctrl<Key>J  
helios\*LoadLayout\_Btn.acceleratorText: Control+J  
helios\*MacroButton.accelerator: Ctrl<Key>M  
helios\*MacroButton.acceleratorText: Control+M

**SEE ALSO**

space(1ICD),  
SPACE TUTORIAL - HELIOS VERSION,  
SPACE USER'S MANUAL,  
X Window System Documentation.