C. Installing the book and packages

C.1 Content

TheCD-ROM with the book "Front-End Vision and Multiscale Image Analysis" contains the following:

- the ZIP archive file **FrontEndVision.zip** with all the necessary files with pathnames. This file contains:

- the directory **FrontEndVision/Documentation/English** with the collection of *Mathematica* notebooks of the total book. All chapters, appendices, table of contents and the referencelist are separate notebooks. This is the sourcecode of the book.

- the notebook **FrontEndVision/FEV.nb** and package **FrontEndVision/FEV.m**. This notebook contains the initializations and the image analysis functions used throughout the book. The package is loaded as the first command in every notebook of this book that contains executable code. Do not edit this package, as it is automatically generated from **FEV.nb** upon saving.

- the directory **FrontEndVision/images** with the images, figures and other data used in the book.

- the directory **FrontEndVision/Documentation/English/pdf** with the PDF versions of all notebooks.

- the directory **FrontEndVision/LiveGraphics3D** with the source code and an example of the interactive 3D Java viewer LiveGraphics3D.

- the stylenotebook
  SystemFiles/FrontEnd/StyleSheets/FrontEndVision.nb, which contains the style directives (layout and makeup) of the notebooks on your screen and printer.

- the stylenotebook
  SystemFiles/FrontEnd/StyleSheets/PackageNotebook.nb, which contains directives for notebooks to generate a package automatically (as **FEV.nb**).

- the file **FrontEndVision/binary.exe** with is a compiled C++ executable, to read binary data fast. This is now integrated in *Mathematica*, it may be useful for older versions.

When the kernel of *Mathematica* is not available, the notebooks can be read with the free stand-alone notebook reader **MathReader**. This is the front-end program, to read and view the *Mathematica* notebooks of the book. The latest version of **MathReader** can be downloaded for free from www.wolfram.com/products/mathreader. Versions are supplied for Windows, Macintosh, Linux and Unix.

The notebooks of this book can only be run on *Mathematica* 4.0 and later.

C.2 Installation for all systems

For: Windows 95/98/2000/NT/XP, Macintosh, Unix, Linux.

Run the command **$TopDirectory**. This returns the directory where the file **FrontEndVision.zip** file should be copied and executed to uncompress the files in that directory.

```
$TopDirectory

C:\Program Files\Wolfram Research\Mathematica\4.2
```

All files will be automatically installed in the right locations. E.g. for Windows users:
At the end you should have the following directory where you find your notebooks:
C:\Program Files\Wolfram Research\Mathematica\4.1\AddOns\Applications\
FrontEndVision\Documentation\English

C.3 Viewing the book in the Help Browser

The book can best be interactively viewed in the Help Browser of *Mathematica:*

1. Run the menu command "Rebuild Help Index" in the Help menu in the top menubar in *Mathematica*.

The commands in the file
$TopDirectory\AddOns\Applications\FrontEndVision\Documentation\English\BrowserCategories.m contains the instructions to generate the appropriate menus in the Help browser;

2. Open de Help Browser and click on the button "AddOns". In the left menu panel the book is now available.

The notebooks viewed with the Help Browser can all be executed as normal notebooks. However, the Help browser files are read-only. A particular useful feature is to copy and paste the commands in the book through the Help Browser as directly usable code into your own notebooks.

The book has an extensive reference list. The last chapter is the extensive alphabetical index. The Help Browser enables quick hypertext jumping to the appropriate chapter and cell where the selected keyword appears. The same feature is true for the TableOfContent notebook.

Some suggestions:

- Increase the magnification of the Help Browser for all notebooks to e.g. 150% by setting the magnification globally for this notebook. This is accomplished , after selection the Help Browser as current notebook, with the Option Inspector, available in the Format menu. 'Show option values for:' *global*. Search for the keyword 'magnification' and set the value to your liking.

C.4 Sources of additional applications

Get the last versions of
- The OpenGL 3D viewer MathGL3d:
phong.informatik.uni-leipzig.de/~kuska/mathgl3dv3/;
- The Java interactive 3D animation viewer LiveGraphics3D:
 wwwvis.informatik.uni-stuttgart.de/~kraus/LiveGraphics3D/.