Comparison with Other Graphics Packages **Utility Packages** Introduction How to Read This Manual Authors and Acknowledgements Getting Help Tutorial: A Picture for Karl's Students Tutorial: A Petri-Net for Hagen Tutorial: Euclid's Amber Version of the Elements **Tutorials and Guidelines** Tutorial: Diagrams as Simple Graphs Tutorial: A Lecture Map for Johannes **Tutorial: Guidelines on Graphics** Installation Licenses and Copyright **Installation and Configurations** Supported Formats **Design Principles Hierarchical Structures:** Package, Environments, Scopes, and Styles **Specifying Coordinates Syntax for Path Specifications Actions on Paths** Arrows Nodes and Edges TikZ ist kein Zeichenprogramm Pics: Small Pictures on Paths **Specifying Graphs** Matrices and Alignment Making Trees Grow Plots of Functions Transparency **Decorated Paths** Transformations Libraries Pattern Library TikZ & PGF 3.0.1a 中文手册 Petri-Net Drawing Library Plot Handler Library Plot Mark Library **Profiler Library Shadings Library Shadows Library** Shape Library Spy Library: Magnifying Parts of Pictures SVG-Path Library To Path Library Through Library Tree Library **Turtle Graphics Library Key Management** Repeating Things: The Foreach Statement Date and Calendar Utility Macros Utilities Page Management **Extended Color Support** Parser Module **Design Principles** Mathematical Expressions **Additional Mathematical Commands** Mathematical and Objected Engines Customizing the Mathematical Engine **Number Printing Object-Oriented Programming** Design Principles **Hierarchical Structures:** Package, Environments, Scopes, and Text **Specifying Coordinates** Constructing Paths Decorations **Using Paths** Defining New Arrow Tip Kinds **Nodes and Shapes** Matrices The Basic Layer Coordinate, Canvas, and Nonlinear Transforma-Patterns Declaring and Using Images **Externalizing Graphics Creating Plots** Layered Graphics Shadings Transparency Adding libraries to PGF: temporary registers **Quick Commands** Design of the System Layer Commands of the System Layer The System Layer The Soft Path Subsystem The Protocol Subsystem

References and Index

The Layers Below TikZ