

TikZ & PGF  
3.0.1a

|  |  |
|--|--|
| Introduction                               | <ul style="list-style-type: none"><li>The Layers Below TikZ</li><li>Comparison with Other Graphics Packages</li><li>Utility Packages</li><li>How to Read This Manual</li><li>Authors and Acknowledgements</li><li>Getting Help</li></ul>   |
| Tutorials and Guidelines                   | <ul style="list-style-type: none"><li>Tutorial: A Picture for Karl's Students</li><li>Tutorial: A Petri-Net for Hagen</li><li>Tutorial: Euclid's Amber Version of the Elements</li><li>Tutorial: Diagrams as Simple Graphs</li><li>Tutorial: A Lecture Map for Johannes</li><li>Tutorial: Guidelines on Graphics</li></ul>   |
| Installation and Configurations            | <ul style="list-style-type: none"><li>Installation</li><li>Licenses and Copyright</li><li>Supported Formats</li></ul>  |
| TikZ ist <i>kein</i> Zeichenprogramm       | <ul style="list-style-type: none"><li>Design Principles</li><li>Hierarchical Structures: Package, Environments, Scopes, and Styles</li><li>Specifying Coordinates</li><li>Syntax for Path Specifications</li><li>Actions on Paths</li><li>Arrows</li><li>Nodes and Edges</li><li>Pics: Small Pictures on Paths</li><li>Specifying Graphs</li><li>Matrices and Alignment</li><li>Making Trees Grow</li><li>Plots of Functions</li><li>Transparency</li><li>Decorated Paths</li><li>Transformations</li></ul>  |
| Graph Drawing                              | <ul style="list-style-type: none"><li>Introduction to Algorithmic Graph Drawing</li><li>Using Graph Drawing in TikZ</li><li>Using Graph Drawing in PGF</li><li>Graph Drawing Layouts: Trees</li><li>Graph Drawing Algorithms: Layered Layouts</li><li>Graph Drawing Algorithms: Force-Based Methods</li><li>Graph Drawing Algorithms: Circular Layouts</li><li>Graph Drawing Layouts: Phylogenetic Trees</li><li>Graph Drawing Algorithms: Edge Routing</li><li>The Algorithm Layer</li><li>Writing Graph Drawing Algorithms in C</li><li>The Display Layer</li><li>The Binding Layer</li></ul>  |
| Libraries                                  | <ul style="list-style-type: none"><li>Angle Library</li><li>Arrow Tip Library</li><li>Automata Drawing Library</li><li>Babel Library</li><li>Background Library</li><li>Calc Library</li><li>Calendar Library</li><li>Chains</li><li>Circuit Libraries</li><li>Decoration Library</li><li>Entity-Relationship Diagram Drawing Library</li><li>Externalization Library</li><li>Fading Library</li><li>Fitting Library</li><li>Fixed Point Arithmetic Library</li><li>Floating Point Unit Library</li><li>Lindenmayer System Drawing Library</li><li>Math Library</li><li>Matrix Library</li><li>Mindmap Drawing Library</li><li>Paper Folding Diagrams Library</li><li>Pattern Library</li><li>Petri-Net Drawing Library</li><li>Plot Handler Library</li><li>Plot Mark Library</li><li>Profiler Library</li><li>Shadings Library</li><li>Shadows Library</li><li>Shape Library</li><li>Spy Library: Magnifying Parts of Pictures</li><li>SVG-Path Library</li><li>To Path Library</li><li>Through Library</li><li>Tree Library</li><li>Turtle Graphics Library</li></ul> |
| Data Visualization                         | <ul style="list-style-type: none"><li>Introduction to Data Visualization</li><li>Creating Data Visualizations</li><li>Providing Data for a Data Visualization</li><li>Axes</li><li>Visualizers</li><li>Style Sheets and Legends</li><li>Polar Axes</li><li>The Data Visualization Backend</li></ul>  |
| Utilities                                  | <ul style="list-style-type: none"><li>Key Management</li><li>Repeating Things: The Foreach Statement</li><li>Date and Calendar Utility Macros</li><li>Page Management</li><li>Extended Color Support</li><li>Parser Module</li></ul>   |
| Mathematical and Objected-Oriented Engines | <ul style="list-style-type: none"><li>Design Principles</li><li>Mathematical Expressions</li><li>Additional Mathematical Commands</li><li>Customizing the Mathematical Engine</li><li>Number Printing</li><li>Object-Oriented Programming</li></ul>  |
| The Basic Layer                            | <ul style="list-style-type: none"><li>Design Principles</li><li>Hierarchical Structures: Package, Environments, Scopes, and Text</li><li>Specifying Coordinates</li><li>Constructing Paths</li><li>Decorations</li><li>Using Paths</li><li>Defining New Arrow Tip Kinds</li><li>Nodes and Shapes</li><li>Matrices</li><li>Coordinate, Canvas, and Nonlinear Transformations</li><li>Patterns</li><li>Declaring and Using Images</li><li>Externalizing Graphics</li><li>Creating Plots</li><li>Layered Graphics</li><li>Shadings</li><li>Transparency</li><li>Adding libraries to PGF: temporary registers</li><li>Quick Commands</li></ul>   |
| The System Layer                           | <ul style="list-style-type: none"><li>Design of the System Layer</li><li>Commands of the System Layer</li><li>The Soft Path Subsystem</li><li>The Protocol Subsystem</li></ul>   |
| References and Index                       |  |