

# Next Steps in L<sup>A</sup>T<sub>E</sub>X: Intermediate Techniques

TikZ - Basic nodes

Sascha Frank

<https://www.latex-kurs.de/kurse/kurse.html>

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# Knoten – node

## Knoten

```
node[Optionen] (Name){Inhalt}
```

```
\begin{tikzpicture}[scale=0.75]
```

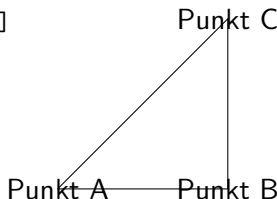
```
\draw (0,0) node (a) {Punkt A}
```

```
-- (3,0) node (b) {Punkt B}
```

```
-- (3,3) node (c) {Punkt C}
```

```
-- (0,0);
```

```
\end{tikzpicture}
```



```
\begin{tikzpicture}[scale=0.75]
```

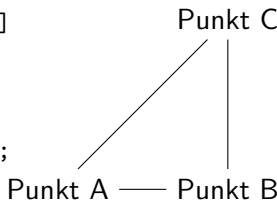
```
\path (0,0) node (a) {Punkt A}
```

```
(3,0) node (b) {Punkt B}
```

```
(3,3) node (c) {Punkt C};
```

```
\draw (a) -- (b) -- (c) -- (a);
```

```
\end{tikzpicture}
```



# »Bäume mit TikZ«

Eltern und Kind

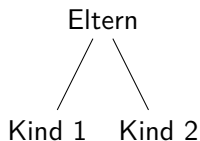
```
\begin{tikzpicture}  
  \node {Eltern}  
    child { node {Kind} };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

Eltern und Kinder

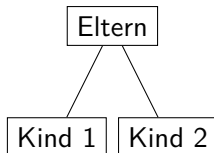
```
\begin{tikzpicture}
  \node {Eltern}
    child { node {Kind 1} }
    child { node {Kind 2} };
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Kästchen

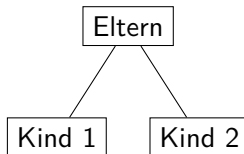
```
\begin{tikzpicture}[  
  every node/.style = {  
    draw,}  
]  
  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2} };  
  
\end{tikzpicture}
```



# »Bäume mit TikZ«

Kinder brauchen Abstand voneinander

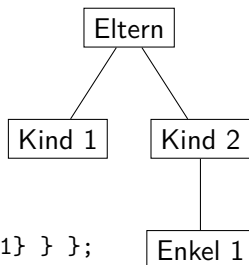
```
\begin{tikzpicture}[  
  sibling distance=5em,  
  every node/.style = {  
    draw,}  
]  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2} };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

Kinder können Kinder haben

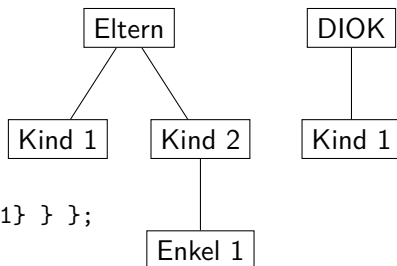
```
\begin{tikzpicture}[  
  sibling distance=5em,  
  every node/.style = {  
    draw,  
  }  
  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2}  
      child { node {Enkel 1} } };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

Andere Eltern haben auch Kinder

```
\begin{tikzpicture}[
  sibling distance=5em,
  every node/.style = {
    draw,}
]
\node {Eltern}
  child { node {Kind 1} }
  child { node {Kind 2}
    child { node {Enkel 1} } };
\node at (3,0) {DIOK}
  child { node {Kind 1} };
\end{tikzpicture}
```

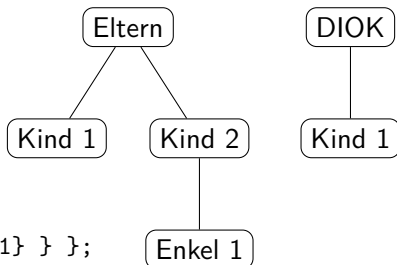




## »Bäume mit TikZ«

Rechtecke abgerundete Ecken

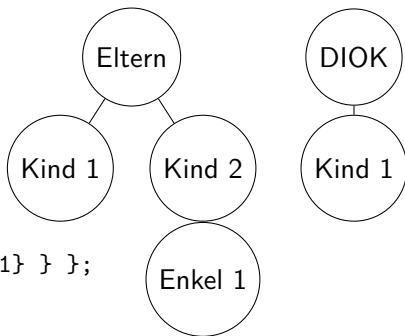
```
\begin{tikzpicture}[
  sibling distance=5em,
  every node/.style = {
    shape=rectangle,
    rounded corners,
    draw,}
]
\node {Eltern}
  child { node {Kind 1} }
  child { node {Kind 2}
    child { node {Enkel 1} } };
\node at (3,0) {DIOK}
  child { node {Kind 1} };
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Kreise

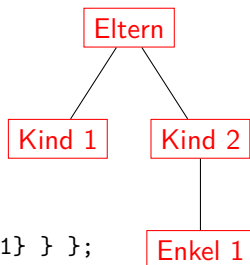
```
\begin{tikzpicture}[  
  sibling distance=5em,  
  every node/.style = {  
    shape=circle,  
    draw,}  
]  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2}  
      child { node {Enkel 1} } };  
  \node at (3,0) {DIOK}  
    child { node {Kind 1} };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Knoten mit Farben

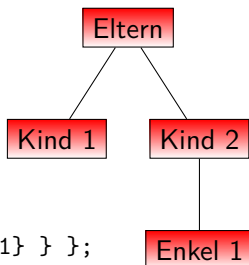
```
\begin{tikzpicture}[  
  sibling distance=5em,  
  every node/.style = {  
    color=red,draw,  
  }  
]  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2}  
      child { node {Enkel 1} } };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Knoten mit Farbübergang

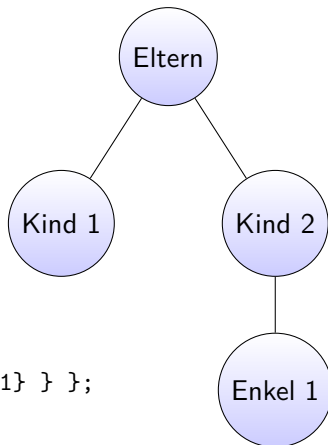
```
\begin{tikzpicture}[  
  sibling distance=5em,  
  every node/.style = {  
    top color=red,draw,  
  }  
]  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2}  
      child { node {Enkel 1} } };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Knoten mit Farbübergängen

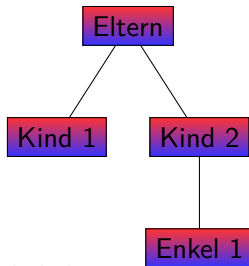
```
\begin{tikzpicture}[  
  sibling distance=5em,  
  every node/.style = {  
    shape=circle,  
    top color=white,  
    bottom color=blue!20,  
    draw,}  
]  
  \node {Eltern}  
    child { node {Kind 1} }  
    child { node {Kind 2}  
      child { node {Enkel 1} } };  
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Knoten mit Farbübergängen

```
\begin{tikzpicture}[
  sibling distance=5em,
  every node/.style = {
    top color=red!80,
    bottom color=blue!80,
    draw,}
]
\node {Eltern}
  child { node {Kind 1} }
  child { node {Kind 2}
    child { node {Enkel 1} } };
\end{tikzpicture}
```



# »Bäume mit TikZ«

## Baum mit Bildern

```
\begin{tikzpicture}[scale=2,  
  sibling distance=10em, every node/.style = {align=center}  
  ]  
  \node {\includegraphics[scale=0.05]{karton}\\  
    \tiny Katze im Kartondeckel}  
    child { node {\includegraphics[scale=0.05]{kiste}\\  
      \tiny Katze im Karton} }  
    child { node {\includegraphics[scale=0.05]{schlaf2}\\  
      \tiny Schlafen im Deckel}  
      child { node {\includegraphics[scale=0.05]{schlaf}\\  
        \tiny Draußen} } } };  
\end{tikzpicture}
```



Katze im Kartondeckel



Katze im Karton



Schlafen im Deckel



Draußen