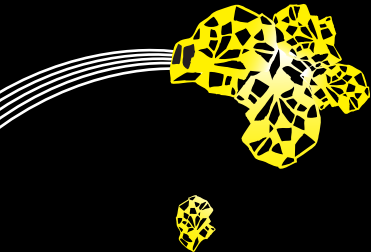


Symbolic Model Checking of Timed Automata using LTSmin

Sybe van Hijum





Overview

Timed Automata

Symbolic Model Checking

LTSmin

Working with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$

Second Section

Third Section




Transition System

Definition

Labeled Transition System A labeled transition system is a 4-tuple $A = \langle S, Act, s_0, I \rangle$ where

- ▶ *S is a finite set of states*
- ▶ *Act is a finite set of labelled actions*
- ▶ *$s_0 \in S$ is a finite set of actions*
- ▶ *I is a set of labels*



Transition System

1

2

3



Overview

Timed Automata

Symbolic Model Checking

LTSmin

Working with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$

Second Section

Third Section



Overview

Timed Automata

Symbolic Model Checking

LTSmin

Working with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$

Second Section

Third Section



Overview

Timed Automata

Symbolic Model Checking

LTSmin

Working with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$


Second Section

Third Section

Font Sizes

Table: The different font sizes within \LaTeX

tiny	sample text
scriptsize	sample text
footnotesize	sample text
small	sample text
normalsize	sample text
large	sample text
Large	sample text
LARGE	sample text
huge	sample text
Huge	sample text




Creation of a new frame

The text within the frame




Creation of a new frame - source

```
\begin{frame}{Creation of a new frame}  
  The text within the frame  
\end{frame}
```




Frame with pause itemes

- First item




Frame with pause itemes

- ▶ First item
- ▶ Second item



Frame with pause itemes

- ▶ First item
- ▶ Second item
- ▶ You get the point.



Frame with pause itemes - source

```
\begin{frame}{Frame with \texttt{pause} itemes}  
\begin{itemize}  
\item First item \pause  
\item Second item \pause  
\item You get the point.  
\end{itemize}  
\end{frame}
```

Frame with pause tables


Table: Caption

Class	A	B	C	D
X	1	2	3	4

Frame with pause tables

Table: Caption


Class	A	B	C	D
X	1	2	3	4
Y	3	4	5	6



Frame with pause tables

Table: Caption

Class	A	B	C	D
X	1	2	3	4
Y	3	4	5	6
Z	5	6	7	8



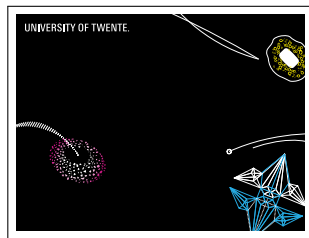
Frame with pause tables - source

```
\begin{frame}{Frame with \texttt{pause} tables}

\rowcolors[] {1} {blue!20} {blue!10}
\begin{table}
\caption{Caption}
\begin{tabular}{l!{\vrule}cccc}
Class & A & B & C & D \\\hline
X & 1 & 2 & 3 & 4 \pause \\
Y & 3 & 4 & 5 & 6 \pause \\
Z & 5 & 6 & 7 & 8
\end{tabular}
\end{table}
\end{frame}
```

Two Column Output

Text here.
Text here.
Text here.





Two Column Output - source

```
\begin{frame}{Two Column Output}
  \begin{columns}[c]
    \column{1.5in}
      Text here.\\
      Text here.\\
      Text here.
    \column{1.5in}
      \framebox{\includegraphics[width=1.5in]{img/back2}}
  \end{columns}
\end{frame}
```



Overview

Timed Automata


Symbolic Model Checking

LTSmin

Working with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$

Second Section

Third Section



First frame of the Second Section

Each new section starts with an Table Of Contents.



Overview

Timed Automata


Symbolic Model Checking

LTSmin

Working with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$

Second Section

Third Section



First frame of the Second Section

The Table Of Contents is clickable