SLDNF Draw User's manual Chapter 2: Animations

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Outline

- Activating animations
- 2 First example
- 3 Larger example
- Example of transition

Activating animations

The trees generated with SLDNF-Draw can be visualized as animations of the beamer class, so that in beamer presentations the tree is shown gradually, showing the nodes of the tree as they are explored by a depth-first search, as in classical Prolog. By default, no animation is generated. To switch on animations, the command animate/0 can be given at the Prolog prompt.

Animations: LATEX code

A minimal LATEX file to generate a PDF with an animated tree is the following

```
\documentclass{beamer}
\modepresentation>
\usetheme{Warsaw}
\usepackage{epic}
\usepackage{ecltree}
\begin{document}
\begin{frame}{Title}
\input{tree}
\end{frame}
\end{document}
```

$$\begin{array}{ccc} & \text{member1}(\mathsf{p}(X_0), [Y_0, \mathsf{q}, \mathsf{p}(1)]) \\ & Y_0/\mathsf{p}(X_0), \\ & \text{true} & \text{member1}(\mathsf{p}(X_0), [\mathsf{q}, \mathsf{p}(1)]) \\ & & \text{member1}(\mathsf{p}(X_0), [\mathsf{p}(1)]) \\ & & X_0/1 = \infty \end{array}$$

$$\begin{array}{ccc} & \text{member1}(\mathsf{p}(X_0), [Y_0, \mathsf{q}, \mathsf{p}(1)]) \\ & Y_0/\mathsf{p}(X_0), \\ & \text{true} & & \text{member1}(\mathsf{p}(X_0), [\mathsf{q}, \mathsf{p}(1)]) \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & &$$

```
And this is the result of drawing the goal  member1(p(X), [Y,q,p(1)]), \ where \ member1 \ is \ defined \ as \ follows: \\ member1(X,[X|T]). \\ member1(X,[_|T]):- \ member1(X,T).
```

$$\begin{array}{ccc} \operatorname{member1}(\mathsf{p}(X_0), [Y_0, \mathsf{q}, \mathsf{p}(1)]) \\ Y_0/\mathsf{p}(X_0), & & \\ \operatorname{true} & \operatorname{member1}(\mathsf{p}(X_0), [\mathsf{q}, \mathsf{p}(1)]) \\ & & \\ & & \\ \operatorname{member1}(\mathsf{p}(X_0), [\mathsf{p}(1)]) \\ & & \\ X_0/1 & & \\ \end{array}$$

```
And this is the result of drawing the goal
member1(p(X),[Y,q,p(1)]), where member1 is defined as follows:
member1(X,[X|T]).
member1(X,[_|T]):-member1(X,T).
               member1(p(X_0),[Y_0,q,p(1)])
                              \mathsf{member1}(\mathsf{p}(\underset{\scriptscriptstyle{|}}{X_0}),\![\mathsf{q},\!\mathsf{p}(1)])
                   true
                               member1(\underline{p}(X_0),[p(1)])
```

```
And this is the result of drawing the goal
member1(p(X),[Y,q,p(1)]), where member1 is defined as follows:
member1(X,[X|T]).
member1(X,[_|T]):-member1(X,T).
              member1(p(X_0),[Y_0,q,p(1)])
                             \mathsf{member1}(\mathsf{p}(\underset{\scriptscriptstyle{|}}{X_0}),\![\mathsf{q},\!\mathsf{p}(1)])
                  true
                              member1(p(X_0),[p(1)])
```

true

```
And this is the result of drawing the goal  \begin{split} \text{member1}(p(X), [Y, q, p(1)]), & \text{where member1 is defined as follows:} \\ \text{member1}(X, [X | T]). \\ \text{member1}(X, [\_ | T]): - & \text{member1}(X, T). \end{split}
```

$$Y_0/p(X_0)$$
, true member1(p(X_0),[q,p(1)])

member1(p(X_0),[p(1)])

 $X_0/1$

true member1(p(X_0),[p(1)])

```
And this is the result of drawing the goal  member1(p(X),[Y,q,p(1)]), \ where \ member1 \ is \ defined \ as \ follows: \\ member1(X,[X|T]). \\ member1(X,[_-|T]):- \ member1(X,T). \\ \\ \underbrace{ member1(p(X_0),[Y_0,q,p(1)]) }_{Y_0/p(X_0)} \\ true \ member1(p(X_0),[q,p(1)])
```



































































































