

Tree proof for branch $((N_3), Prv(A_3))$ of the rule:

$$\left[\begin{array}{l} \{Prv(A_3), Prv(A_4), (N_4)\} \# \{\}, \\ [(N_3), A_3]_{Pub(A_4)} \end{array} \right] \xrightarrow{\text{I}} \left[[(N_3), (N_4), A_4]_{Pub(A_3)} \right]$$

$$\left\{ \begin{array}{l} \{Prv(A_3), Prv(A_4), (N_4)\#\{\}, \\ [(N_3), A_3]_{Pub(A_4)} \end{array} \right\}$$

\downarrow db
 true

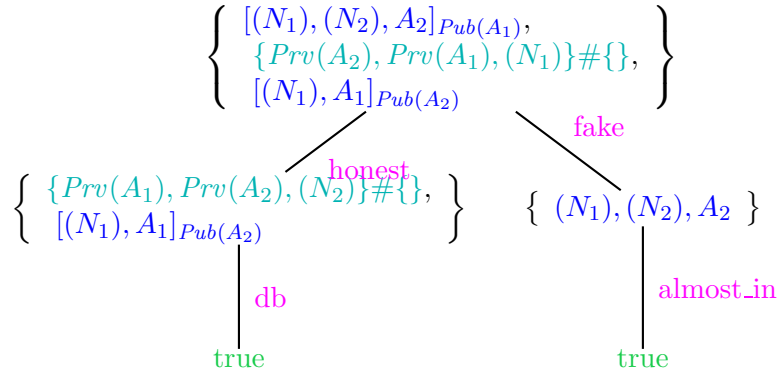
Tree proof for branch $((N_4), Prv(A_3))$ of the rule:

$$\left[\begin{array}{l} \{Prv(A_3), Prv(A_4), (N_4)\#\{\}, \\ [(N_3), A_3]_{Pub(A_4)} \end{array} \right] \xrightarrow{\square} \left[[(N_3), (N_4), A_4]_{Pub(A_3)} \right]$$

$$\begin{array}{c} \{ \{Prv(A_2), Prv(A_1), (N_1)\} \# \{ \} \} \\ | \\ \text{db} \\ | \\ \text{true} \end{array}$$

Tree proof for branch $((N_1), Prv(A_2))$ of the rule:

$$\begin{array}{ccc} [\{Prv(A_2), Prv(A_1), (N_1)\} \# \{ \}] & \xrightarrow{\square} & [[(N_1), A_1]_{Pub(A_2)}] \end{array}$$



Tree proof for branch $((N_2), Prv(A_2))$ of the rule:

$$\left[\begin{array}{l} [(N_1), (N_2), A_2]_{Pub(A_1)}, \\ \{Prv(A_2), Prv(A_1), (N_1)\} \# \{\}, \\ [(N_1), A_1]_{Pub(A_2)} \end{array} \right] \xrightarrow{\square} \left[[(N_2)]_{Pub(A_2)} \right]$$