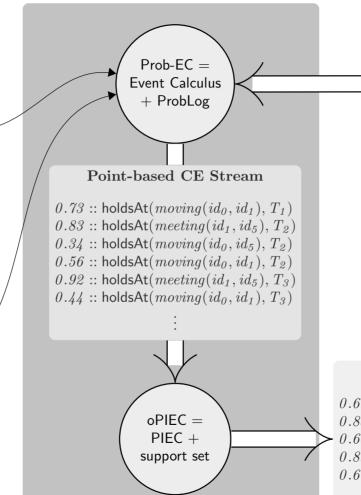


Event Calculus Axioms

 $\begin{aligned} & \mathsf{holdsAt}(F = V, T) \; \leftarrow \\ & \mathsf{initially}(F = V), \\ & \mathsf{not} \; \mathsf{broken}(F = V, \theta, T). \end{aligned}$

 $\begin{aligned} \mathsf{holdsAt}(F = V, T) &\leftarrow\\ \mathsf{initiatedAt}(F = V, T_s), T_s < T,\\ \mathsf{not}\; \mathsf{broken}(F = V, T_s, T).\\ &\vdots \end{aligned}$



SDE Stream

 $\begin{array}{l} \textit{0.73} :: \mathsf{happensAt}(walking(id_0), T_1) \\ \textit{0.79} :: \mathsf{happensAt}(walking(id_1), T_1) \\ \hline \textit{0.92} :: \mathsf{happensAt}(active(id_5), T_1) \\ \textit{0.85} :: \mathsf{happensAt}(inactive(id_1), T_2) \\ \textit{0.70} :: \mathsf{happensAt}(active(id_5), T_2) \\ \textit{0.45} :: \mathsf{happensAt}(walking(id_0), T_3) \\ \hline \vdots \\ \end{array}$

Interval-based CE Stream

 $0.61 :: holdsFor(moving(id_0, id_1), (T_1, T_2))$ $0.88 :: holdsFor(meeting(id_1, id_5), (T_3, T_6))$ $0.66 :: holdsFor(moving(id_0, id_5), (T_6, T_7))$ $0.89 :: holdsFor(moving(id_0, id_1), (T_8, T_{12}))$ $0.67 :: holdsFor(meeting(id_1, id_5), (T_{14}, T_{18}))$

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