

## **rel\_star\_closure2**<sup>4,23</sup>

$\forall T:\text{Type}, R, R_2:(T \rightarrow T \rightarrow \text{Prop}).$   
 $\text{Refl}(T;1,2.R_2(1,2))$   
 $\Rightarrow (\text{Trans } 1,2:T. R_2(1,2))$   
 $\Rightarrow (\forall x, y:T. (x R y) \Rightarrow R_2(x,y))$   
 $\Rightarrow (\forall x, y:T. (x (R^*) y) \Rightarrow R_2(x,y))$