

Modal Logic

2. Frame Definability

2.1 Introduction

Model : (W, R, V)

R reflexive (every world has arrow to itself \odot , $\forall w \in W : Rww \Rightarrow \Box p \rightarrow p$ holds).

Frame : (W, R)

R reflexive $\Leftrightarrow \Box p \rightarrow p$ holds.

2.2 Properties of Accessibility Relations

serial: always an arrow from each world

reflexive: every world has arrow to itself \odot , $\forall w \in W : Rww$

symmetric: $\forall w, v \in W$ if $Rwv \rightarrow Rvw$.

transitive: If we can go to a world in two steps we can go there in one step

euclidian: If we can go from one world to two others there will be an arrow between those worlds.