type Decision = Activity \times Period

Timetable: Locust set

\forall a \ size(\{p | (a,p) \in \text{Timetable}\}) = \text{size}(a)

\forall a,p \ size(\{i | i \in \text{requirement}(a) \& (a,p) \in \text{Timetable}\}) = \text{size}(i)

\text{day pid: Period} \rightarrow \text{Period set}

\text{void a \in spread} \rightarrow \text{size}(\{p | (a,p) \in \text{Timetable} \& \text{pid}(p) = \text{day}(a)\}) \leq 1

\text{prescribed C \in Timetable C - forbidden}

\text{voided, assigned: Decision set initially empty}

\text{by assignment: assignments: } (a,p); \text{ progress; assignment: } (a,p)

\text{by cancellation:}

\text{complete: assignment: } \rightarrow \text{cancellation}

\text{invariant: cancelled, assigned = empty}

\exists \text{Timetable assigned} \leq \text{Timetable C - cancelled.}

\text{void assign, freed cancelled: Period set}

N_{\text{assigned}}((\text{assigned}, (a,p)))