

type Decision = Activity \times Period

timetable: Inclusion set

$$\forall a \quad \text{size}(\{p \mid (a, p) \in \text{timetable}\}) = \text{times}(a)$$

$$\forall i, p \quad \text{size}(\{a \mid i \in \text{requirement}(a) \& (a, p) \in \text{timetable}\}) = \text{times}(i)$$

day pid: Period \rightarrow Period set

$$\forall a, p \quad a \in \text{spread} \supset \text{size}(\{p' \mid (a, p') \in \text{timetable} \& \text{period}(\text{dayof}(p)) \subseteq \text{period}(\text{dayof}(p'))\}) \leq 1$$

preassigned \subset timetable \subset forbidden

cancelled, assigned: Decision set ~~initially~~ initially empty;

try assignment: assignment: $\{(a, p)\}$; progress; assignment: $\{(a, p)\}$

by cancellation

complete: assignment: \rightarrow cancellation

invariant: cancelled \cup assigned = empty

\exists timetable assigned \subseteq timetable \subset cancelled.

forced assign, forced cancel: Period set

N^{assigned}
(assigned $\hat{=}$ $\{(a, p)\}$)

