In the following, p will be the parameter, x and y will be the clocks, a and b two natural numbers $\in \mathbb{N}$.

Tile forcing the following interval: $p \in (\frac{a}{2}, \infty)$.

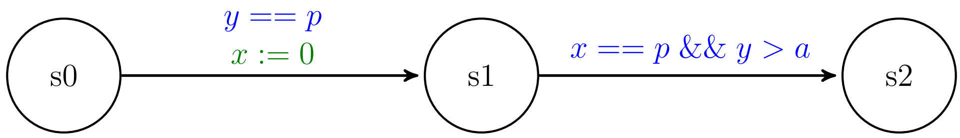

Fig. 1: Tile 1

Tile forcing the following interval: $p \in (0, \frac{b}{2})$.

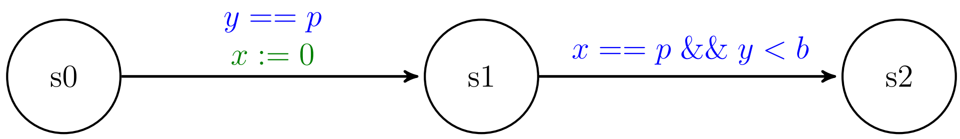

Fig. 2: Tile 2

The above tiles, namely Tile 1 and Tile 2, can be considered as the basic building blocks for constructing every other interval, thanks to the possibility of chaining them together, hence restricting the interval in which the parameter p will fall.

The following one has been obtained by concatenating the aforementioned tiles.

Tile forcing the following interval: $p \in (\frac{a}{2}, \frac{b}{2})$.

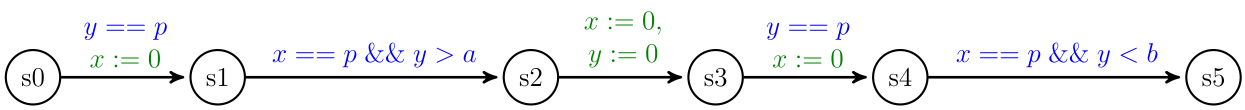

Fig. 3: Tile 3

Please note that Tile 3 can be written more concisely without using concatenation.

Tile forcing the following interval: $p \in (\frac{a}{2}, \frac{b}{2})$.

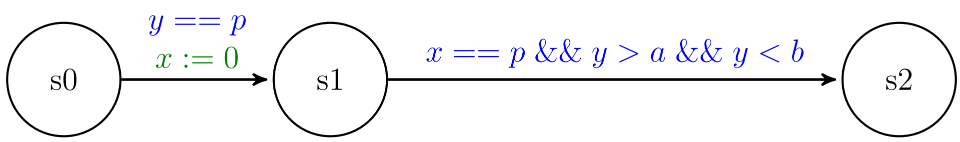

Fig. 4: Tile 4

The following tile has 2 output states, giving rise to the ability of choosing one or the other in an OR condition.

Tile forcing the following interval: $p \in (0, \frac{a}{2}) \vee p \in [\frac{b}{2}, \frac{b}{2}]$

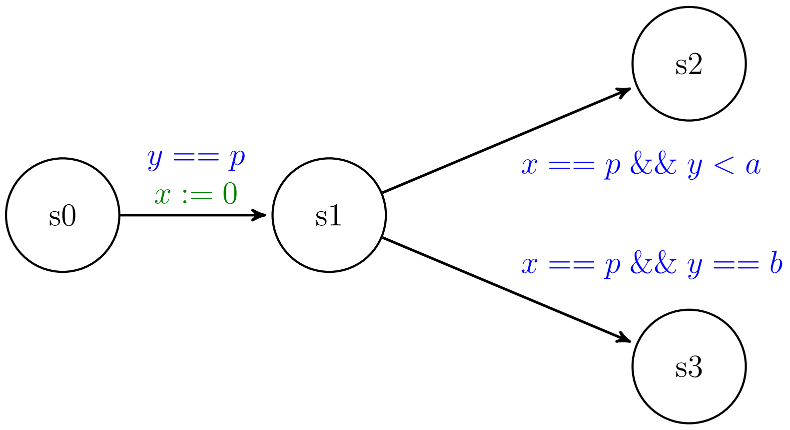

Fig. 5: Tile 5

Please note that in such cases, unless some other previous or subsequent tile forces the parameter in a specific interval, our approach is based on trying all the parameter values starting from $n/2$ (or $n/2 + \alpha$), so the OR tile isn't really non-deterministic in that sense. For example, testing Tile 5 in tChecker with values $a == 8$ and $b == 4$ the result yielded $p == 0.5$.

The following tile has several inputs and outputs, being the most general type of tile we can build (one with n inputs and m outputs).

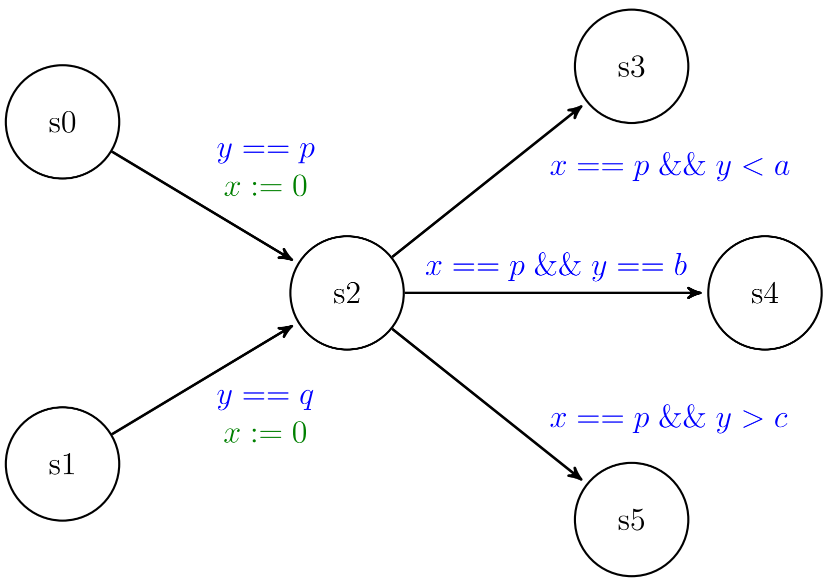

Fig. 6: Tile 6

Understanding whether having multiple input states is useful or not is still under study.