

Let $T(R)$ be the visible state abstraction of the set of states R .
Let R_k be the set of states found with delay bound k .

Definition 10: A set of visible states \mathcal{G} is a generator set if:
 $T(R_k) = T(R_{k-1}) = \dots = T(R_{k-m})$ and $\mathcal{G} \cap T(R) \subseteq T(R_k)$,
then $T(R) \subseteq T(R_k)$

A Generator set for DUBA: Define G to be the visible states $\langle q | \sigma_1 \dots \sigma_m \rangle$ that might have emerged as the result of a pop action:

$G = \{ \langle q | \sigma_1 \dots \sigma_m \rangle : \exists i \text{ s.t } (q, \epsilon) \text{ is the target of a pop edge in } \Delta_i \text{ and } (\sigma_i = \epsilon \text{ or } (?, ?\sigma_i) \text{ is the target of a push edge in } \Delta_i). \}$

Proof sketch: By contradiction. Assume $T(R) \neq T(R_k)$. Consider the first state, t , encountered after the end of the plateau, and the path, p , from the initial state to t . The last step in p must have required a delay (otherwise, t either wouldn't be the *first* new state or would have appeared in $T(R_k)$). This is true for each step in p back to the start of the plateau (needs thinking!). So, if the plateau was at least m in length, p would include m direct delays; i.e it would delay back to the same machine. So, t must not be the result of a push or overwrite because those origin states would have been the same in $T(R_{k-m})$, and t would have appeared earlier. So t must have emerged as the result of a pop rule. (t is in the generator described earlier, so $G \cap T(R) \not\subseteq T(R)$)