Generating Coverability Tree

Full algorithm can be found in Cassandras & Laforente, Chapter 4 (p252)

STEP 0:
  INITIALIZE
  REACH = NEW = \{x_0\}

STEP 1:
  FOR EACH NEW NODES x,
    "EXPAND" x:
    A) IF NO TRANSITIONS ENABLED, x IS A TERMINAL STATE
    B) ELSE FOR EACH ENABLED t_j, CREATE x' BY FIRING t_j
       • IF x(p_i) = \omega
          THEN x'(p_i) = \omega
       • IF y <_{d} x'
          WHERE x0 \iff y \iff x'
          THEN x'(p_i) = \omega
          FOR ALL PLACES p, WITH x'(p_i) \geq y(p_i)
       • ADD x' TO NEW
       • ADD x' TO REACH
    C) REMOVE x FROM NEW

STEP 2:
  IF ALL NODES ADDED ARE DUPLICATES OR TERMINALS
  STOP
  ELSE
  GOTO STEP 1