

String expr **P** $:= \mathbf{Switch}((b_1, e_1), \dots, (b_n, e_n))$

Bool **b** $:= d_1 \vee d_2 \vee \dots \vee d_n$

Conjunct **d_i** $:= p_1 \wedge p_2 \wedge \dots \wedge p_n$

Predicate **p_i** $:= \mathbf{Match}(v_i, r, k)$

Trace expr **e** $:= \mathbf{SubStr}(v_i, p_1, p_2)$

Position **p** $:= \mathbf{Cpos}(k) \mid \mathbf{Pos}(r_1, r_2, c)$

Integer expr **c** $:= k$ (integer const.)

Regular Expression **r** $:= \mathbf{TokenSeq}(T_1, \dots, T_n)$

Token **T** $:= C+ \mid \text{specialToken}$