

union-codes^{11,40}

$[S? \text{ codes}_1 : \text{ codes}_2](j, i, e, st)$
 $\equiv_{\text{def}} \text{ if } p:S(j, i, e) \text{ then } \text{ codes}_1(j, i, e, st) \text{ else } \text{ codes}_2(j, i, e, st) \text{ fi}$

clarification:

$\text{union-codes}(S; \text{ dec_}S; \text{ codes}_1; \text{ codes}_2)(j, i, e, st)$
 $\equiv_{\text{def}} \text{ branch}(S(j, i, e); \text{ dec_}S(j, i, e); p.\text{ codes}_1(j, i, e, st); \text{ codes}_2(j, i, e, st))$