

interleaving_implies_occurence^{4,23}

$\forall T:\text{Type}, L_1, L_2, L:T \text{ List}.$
 $\text{interleaving}(T;L_1;L_2;L)$
 $\Rightarrow (\exists f_1:(\mathbb{N}_{<\|L_1\|} \rightarrow \mathbb{N}_{<\|L\|}), f_2:(\mathbb{N}_{<\|L_2\|} \rightarrow \mathbb{N}_{<\|L\|})).$
 $\text{interleaving_occurence}(T;L_1;L_2;L;f_1;f_2))$