

$\text{TL}[K_] :=$

$\text{Fold}[\text{mc}[\#1 \cup \#2] \ \&, \ \Sigma_B[][\emptyset, \text{PQ}[\{\}, \emptyset]],$

$\text{List}@@(\text{TL} / @ \text{PD}@K)] /.$

$\theta[c_+ u] /; \text{Abs}[c] \geq 1 \Rightarrow \theta[c];$

$\text{TLSig}[K_] := \text{TL}[K][[1]]$