

MODULE *GraphsUtil*

A digraph is a pair of a set of nodes and a set of directed edges, each of which is a pair of nodes.

$IsGraph(G) \triangleq$  Represented by a record with node field and edge field.

$\wedge G = [node \mapsto G.node, edge \mapsto G.edge]$

$EmptyGraph \triangleq [node \mapsto \{\{\}\}, edge \mapsto \{\}]$

$g \oplus h \triangleq$  A union (in terms of set) of two graphs  $g$  and  $h$ .  
 $[node \mapsto g.node \cup h.node, edge \mapsto g.edge \cup h.edge]$

\ \* Modification History

\ \* Last modified *Thu Jan 03 16:38:09 CST 2019* by *hengxin*

\ \* Created *Wed Dec 19 11:11:25 CST 2018* by *hengxin*