

Application	GraphIn Phases and APIs						
		Phase I	Phase II	Phase III	Phase IV		Phase V
	Type	<i>meta_computation()</i>	<i>build_inconsistency_list()</i>	<i>CheckProperty()</i>	<i>frontier_activate()</i>	<i>update_inconsistency_list()</i>	<i>merge_state()</i>
BFS	All-merge	Parent id and vertex degree	<b>1.</b> Inconsistency list contains vertices with incorrect depth values with MIN_PRIORITY. <b>2.</b> $G' = G$	Check BFS depth property	Activate inconsistent vertices with minimum depth value-Ramalingam and Reps	Remove frontier vertices and add inconsistent successors to inconsistency list	<b>1.</b> Apply all insertions and deletions to G.
Connected Components (CC)	Delete-only-merge	Vertex degree	<b>1.</b> For each edge insertion add an edge in $G'$ if the endpoints belong to different components. <b>2.</b> $G'$ is also known as component graph.	Check disjoint component property	Activate all the vertices in $G'$	Clear inconsistency list	<b>1.</b> Apply only deletions to G.  <b>2.</b> Relabel components in G using $G'$
Clustering Coefficient (CCof)	No-merge	Vertex degree	<b>1.</b> Inconsistency list contains endpoints of every edge inserted and/or deleted and their respective neighbors. <b>2.</b> $G'$ consists of inconsistent vertices and edge incident on them in G.	Check vertex degree property	Activate all the vertices in $G'$	Clear inconsistency list	<b>1.</b> Applying insertions and deletions to G not required  <b>2.</b> Update triangle counts and degree information in G using $G'$