

Graph-Theoretic Property: *atis* **WhollyConnectedComponentsSet**

(*Graph-theoretic properties* are those properties that are part of the meta-theory and have been abducted from graph theory to be used as a tool to provide solutions concerning the theory. Those solutions may be assigned as values to components or relations of the theory and thereby become part of the theory.)

Wholly-connected components set, ${}_w\mathcal{E}$, =_{df} a set of components that are path-connected to all other components.

$${}_w\mathcal{E} =_{df} \mathcal{X} = \{x \mid x \in \mathcal{R} \subset \mathcal{S}_0 \wedge \forall y \in \mathcal{R} [x \neq y \wedge (x,y) \in_{pc} E]\}$$

Wholly-connected components set is a set of components, x ; such that, the components, x , are in a subset of the object-set, and for all distinct components, y , of the subset, (x,y) are path-connected.

The following diagram depicts a *Wholly-Connected Components Set*.

