

Graph-Theoretic Property: *atis* **HeterarchyConnectedComponentsSet**

(*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.)

Heterarchy-connected components set, ${}_{HA}E$, =_{df} a set of system path-connected components with no primary-initiating components.

$${}_{HA}E =_{df} \mathcal{X} = \{x \mid x \in \mathcal{RCS}_0 \wedge x \notin {}_{PI}E \wedge \exists y \neq x \in \mathcal{R}[(x,y) \in E]\}$$

Heterarchy-connected components set is a set of components, x ; such that, the components, x , are in a subset of the object-set, and x is not a primary-initiating component, and there exist distinct components, y , of the subset, such that (x,y) is connected.

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

