

## Graph-Theoretic Property: *atis* **InitiatingComponentsSet**

(*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.)

**Initiating-connected components set**,  ${}_1\mathcal{C}$ , =<sub>df</sub> the set of components that have path-connections from them to other components.

$${}_1\mathcal{C} =_{df} \mathcal{X} = \{x \mid x \in \mathcal{R} \subset \mathcal{S}_0 \wedge \exists y \in \mathcal{S}_0 (x \neq y \wedge (x,y) \in {}_{pc}E)\}$$

**Initiating-connected components set** is a set of components,  $x$ ; such that, the components,  $x$ , are in a subset of the object-set, and there exist distinct components,  $y$ , of the system object-set such that  $(x,y)$  are path-connected.

The following diagram depicts an *Initiating-Connected Components Set*.

