

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

(*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.)

**Primary-initiating connected components set**,  ${}_{PI}e$ , =<sub>df</sub> a set of initiating components that are not receiving components.

$${}_{PI}e =_{df} \mathcal{X} = \{x \mid x \in \mathcal{R} \subset \mathcal{S}_o \wedge x \in {}_iE \wedge \exists y \in \mathcal{S}_o (x \neq y \wedge (x,y) \in {}_cE \wedge x \in {}_{PI}E)\}$$

**Primary-initiating connected components set** is a set of components,  $x$ ; such that, the components,  $x$ , are in a subset of the object-set,  $x$  is an initiating component, and there exist distinct components,  $y$ , of the object-set such that  $(x,y)$  are connected, and  $x$  is a primary-initiating component.

