

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

(*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.)

**Connected elements**,  ${}_cE$ , =<sub>df</sub> Elements that are connected in at least one direction.

$${}_cE =_{df} \{ (x,y) \mid \exists \gamma ((x,y) \in {}_{pc}E \vee (y,x) \in {}_{pc}E) \}$$

**Connected elements** are defined as a set of ordered pairs such that the elements are path-connected in at least one direction.