Graph-Theoretic Property: *atis*DirectlyConnectedComponentsSet

(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.)
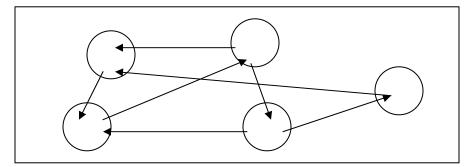
Directly-connected components set, $_{DD}\mathcal{C}$, $=_{df}$ a set of components that are connected with a single path-connection to some other component.

$$_{DD}\mathcal{C} =_{df} \mathcal{X} = \{\varkappa |\ \varkappa \in \mathcal{R} \subset \mathbb{S}_0 \wedge \exists \gamma \in \mathcal{R}[\varkappa \neq \gamma \wedge (\varkappa,\gamma)_{n=1} \in_{pc} E)]\}$$

Directly-connected components set is a set of components, $\varkappa$; such that, the components, $\varkappa$, are in a subset of the object-set, and there exist distinct components, γ, of the subset, such that $(\varkappa,\gamma)$ are path-connected, and $(\varkappa,\gamma)$ have segment-cardinality of 1.

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

Directly-Connected Components Set

Every component is path-connected by a single segment to some other component.