Graph-Theoretic Property: *atis*DisconnectedComponentsSet

(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.)

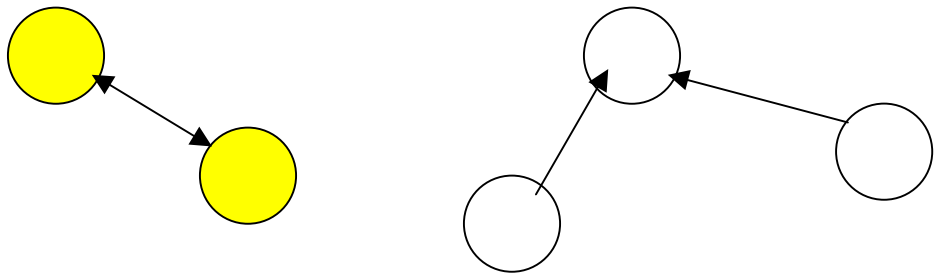
Disconnected components set, $_{DC}\mathscr{C}$, $=_{df}$ a set of components that are not connected to each other.

$$_{DC}\mathscr{C} =_{df} \mathfrak{X} = \{\mathfrak{x} | \mathfrak{x} \in \mathfrak{R} \subset \mathfrak{S}_0 \wedge \forall \mathfrak{y} \in \mathfrak{R}[\mathfrak{x} \neq \mathfrak{y} \wedge (\mathfrak{x},\mathfrak{y}) \in_d \boldsymbol{E}]\}$$

Disconnected components set is a set of components, $\mathfrak{x}$; such that, the components, $\mathfrak{x}$, are in a subset of the object-set, and for all distinct components, $\mathfrak{y}$, of the subset, $(\mathfrak{x},\mathfrak{y})$ are disconnected.

The following diagram depicts a *Disconnected Components Set*.

Disconnected Components Set



The "yellow" components are disconnected from the "white" components.