

## Structural System Property: *atis* PassiveDependentness

(Structural system properties are those properties that are part of the theory and describe patterns of system and negasystem connectedness. The structural properties define the topology of the system, and every affect relation defines a topology on the system.)

**Passive dependentness**,  ${}_{PD}\mathfrak{S}$ , =<sub>df</sub> a partition,  $\mathfrak{y} = (\mathcal{V} \subset \mathcal{G}_o, \mathcal{R} \subset \mathcal{G}_a)$ , characterized by components that are receiving-end-components of incident affect-relations.

$${}_{PD}\mathfrak{S} =_{df} \mathfrak{y} \mid \forall \mathbf{u} \in \mathfrak{y}(\mathcal{V})[\mathbf{u}(\mathbf{e}) \in {}_T\mathbf{E}]$$

*M*: **Passive dependentness measure**,  $\mathcal{M}({}_{PD}\mathfrak{S})$ , =<sub>df</sub> a measure of the terminating degree of a component.

$$\mathcal{M}({}_{PD}\mathfrak{S}) =_{df} \left\{ \left[ \sum_{i=1, \dots, n} \left( \prod_{j=1, \dots, m} d_T(\mathbf{u})_j \right)_i \right] \div \mathbf{C} \right\} \times 100$$

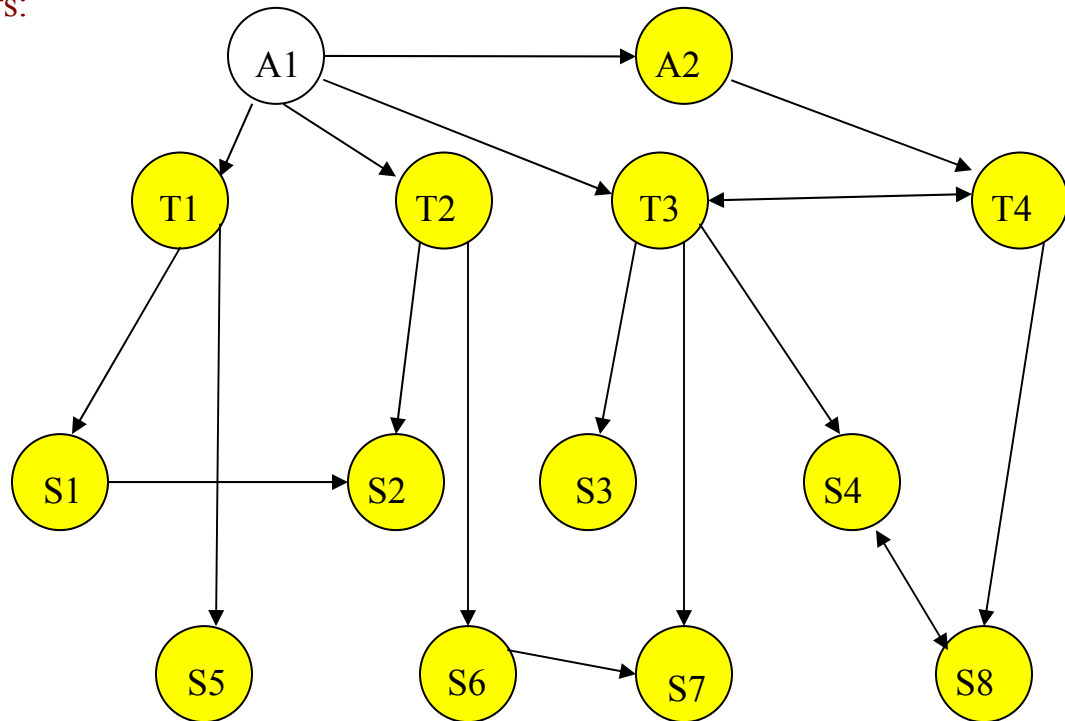
The diagram on the next page shows **passive dependence** in a school system:

**Passive Dependents in a School System**

Administrators:

Teachers:

Students:



**Affect Relation:** Controls Activities of

In this system, there are 13 components that receive *Control Activities of* by other components with respect to *Passive Dependents*. Since there is only 1 affect-relation and 14 components, then the total possible affect relation paths is  $P[Z(\mathfrak{S}_0)] = 236,975,181,590$ ; and therefore,  $C = \log_2(P[Z(\mathfrak{S}_0)]) \approx 37$ . The value is determined by finding the product of the degrees of each terminating component. There are 64 paths related to *Passive Dependents*.

**Therefore:**  $\mathcal{M}_{(PD)}(\mathfrak{S}) \approx 169.38$ .