

## System Type: *atis* **IntentionalSystem**

(System type is part of the metatheory and is defined by characterizations of those system properties that define such a system.)

**Intentional system**,  $\mathcal{I}(\mathcal{S})$ , =<sub>df</sub> **Dynamic teleological system**,  $\mathcal{D}(\mathcal{S})$ , =<sub>df</sub> *Leadership subsystem-directed system behavior*, such that the *leadership subsystem* controls the system's *behavior* in a manner determined by the *Leadership subsystem's goals*.

$$\mathcal{I}(\mathcal{S}) =_{df} \mathcal{D}(\mathcal{S}) =_{df} \mathcal{S} \mid \exists_{\mathcal{L}} \mathcal{W} \subset \mathcal{S} (G:({}_{\mathcal{L}}\mathcal{W}) \rightarrow \mathcal{B}(\mathcal{S}))$$

Where, 'G' is a goal-function-process that maps the leadership subsystem-directed goals onto the system behavior.

**Intentional system** is defined as a system; such that, there is a *leadership subsystem* of the system such that the *goal-function-process* maps the *leadership subsystem goals* onto the *system behavior*.

See '*Dynamic teleological system*' for a discussion of this property.