

18 types of arcs connect six types of nodes

ARC TYPE	DEFINITION
Reason	Why or how something is done.
Means	How something is done, or the action by which a goal or goal-action is performed.
Before	Something happens or exists before something else.
During	Two things happen or exist simultaneously; neither happens or exists before the other.
After	Something happens or exists after something else.
Initiates	Something starts, cues, or causes an agent to acquire a goal or perform an action.
Has-consequence	Indicates an action has had some result.
Refers-to	Indicate that a node is composed of at least one other concept.
And	Two things co-occur, order not important, and a temporal relationship between the nodes does NOT exist.
Or	Indicates that only one of a group of things, usually two, occurs, but NOT both.
Manner	A specific way in which something is done.
Is-a	A concept is one in a group of similar concepts that are types or kinds of another broader based concept.
Equivalent-to	A concept is functionally the same as another concept, and differs only name.
Has-instance-of	Indicates that there is a specific, concrete example or illustration of a concept.
Has-property	The presence of particular characteristics or dynamic features of a concept.
Has-part	A concept is one in a group of physical or conceptual pieces, or components, of another concept.
Implies	When the presence of a particular state, event, or style infers another is present, but is not caused by the first.
Spatial relations	on, contains, above, below, left-of, right-of, etc. for common locations

From: (Gordon et al.)

