Architecture Entity Data Structure

Features	Architecture Components	Representations	Underlying Data Structure	
Architecture	Views model	Top level overall structure	**name** (str): architecture name **indicies** (str[]): viewpoint names **connections** (connection[]): viewpoint connections [<viewpoint name>] (viewpoint): viewpoint objects	

	View	Top level 'component'	**type** viewpoint {
			  component (component[]): components array
			  connector (connector[]): connectors array
			  canvas (canvas): canvas info
			}
				type canvas {
				  x (float): position x
				  y (float): position y
				  width (float): visual width
				  height (float): visual height
				}

	View relation	Top level 'connector'	**type** connection {
			  source (str/cor): source point/viewpoint
			  target (str/cor): target point/viewpoint
			  label (str): connection label
			}
				type cor {
				  x (float): point x,
				  y (float): point y
				}

Component (Processing, State)	General component	Rectangle	**type** component {
			  component (component[]): components array
			  connector (connector[]): connectors array
			  canvas (canvas): canvas info
			
			  cpid (int) [unique inside viewpoint]: component unique id
			  cpname (str): component name
			  cpintf (interface[]): component interfaces
			}	

	General component interface	Port attached on component	**type** interface {
			  iid (int) [unique inside component]: interface unique id
			  itype (str): interface type
			  ipos (str): interface position
			  iname (str): interface name
			  icount (int): number of connections on this interface [constraint checker special]
			}
				enum ipos {
				  Left
				  Right
				  Top
				  Bottom
				}
				
				enum itype {
				  Input
				  Output
				  Non-directional
				}

Connector (Interaction)	General connector	Connection line between components interfaces	**type** connector {
			  source (portid): source interface
			  target (portid): target interface
			  cnlabel (str): connector label
			}
				type portid {
				  cpid (int): component id
				  iid (int): interface id
				}

Intera communication
(intra- & inter-component communication)
	Intera configuration	Each configuration level is wrapped by a component with its upper interfaces	component {
			  cpid: INTERA
			  cpname: interaConfig
			}	

	Intera connection	Intera configuration port displays connected component & connector information in previous level		