
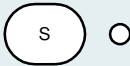





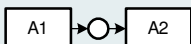
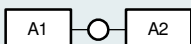
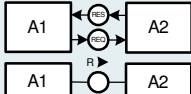
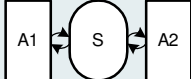



FMC Block diagrams show the compositional structures as a composition of collaborating system components.

There are active system components called agents and passive system components called locations. Each agent processes information and thus serves a well-defined purpose. Therefore an agent stores information in storages and communicates via channels or shared storages with other agents. Channels and storages are (virtual) locations where information can be observed.

| basic elements | | |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>active system component : agent, human agent</p> | <p>Serves a well-defined purpose and therefore has access to adjacent passive system components and only those may be connected to it. A human agent is an active system component exactly like an agent but the only difference that it depicts a human.</p> <p>(Note 1: nouns should be used for identifier "A" Note 2: do not need to be depicted as rectangle or square but has to be angular)</p> |
|  | <p>passive system component (location) : storage, channel</p> | <p>A storage is used by agents to store data.</p> <p>(Note: do not need to be depicted as ellipse or circle but has to be rounded)</p> <p>A channel is used for communication purposes between at least two active system components.</p> <p>(Note: channels are usually depicted as smaller circles but may also vary like the graphical representation of storage places)</p> |
|  | <p>unidirectional connection</p> | <p>Depicts the data flow direction between an active and a passive system component.</p> |
|  | <p>bidirectional connection</p> | <p>Like unidirectional connection but data flow is not strictly from one component to another one. Its direction is unspecified.</p> |
| common structures | | |
|  | <p>read access</p> | <p>Agent A has read access to storage S.</p> |
|  | <p>write access</p> | <p>Agent A has write access to storage S. In case of writing all information stored in S is overwritten.</p> |
|  | <p>read / write access (modifying access)</p> | <p>Agent A has modifying access to storage S. That means that some particular information of S can be changed.</p> |
|  | <p>unidirectional communication channel</p> | <p>Information can only be passed from agent A1 to agent A2.</p> |
|  | <p>bidirectional communication channel</p> | <p>Information can be exchanged in both directions (from agent A1 to agent A2 and vice versa).</p> |
|  | <p>request / response communication channel (detailed and abbreviation)</p> | <p>Agent A1 can request information from agent A2 which in turn responds (e.g. function calls or http request/responses).</p> <p>Because it is very common, the lower figure shows an abbreviation of the request/response channel.</p> |
|  | <p>shared storage</p> | <p>Agent A1 and agent A2 can communicate via the shared storage S much like bidirectional communication channels.</p> |
| advanced | | |
|  | <p>structure variance</p> | <p>Structure variance deals with the creation and disappearance of system components. An agent (A1) changes the system structure (creation/deletion of A2) at a location depicted as dotted storage. System structure change is depicted as modifying access. After creation agent A1 can communicate with agent A2 or vice versa.</p> |