

## Brief Tutorial of MoT (*Moise Tool*)

MoT was realized using the Metaedit+ 4.5 version. In the following is explained how use MoT in Metaedit+.

First of all it is necessary to copy the folder *Moise Notation Metaedit Project* into your Metaedit Directory (usually created by Metaedit installation into Documents folder).

Thus select from *Metaedit+ Startup Launcher* window, the *Moise Notation Metaedit Project* and click Login. Now you can start to create your diagrams.

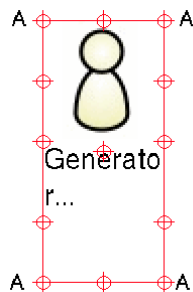
In order to create a new instance of a graph you must right click on *Graphs area* and select *Create Graph*. A dialog window allows selecting the graph type you want realize.

### 1) Organizational Diagram (OD)

- a. If you select the Organizational Diagram from Create Graph dialog you must write the name of the graph and click ok button.
- b. Then it appears the Organizational Diagram (OD) window. This window it composed of a specific tool bar with all possible elements permitted for this kind of diagram.
- c. For example:
  - i. **Create a Group:** you must select from the tool bar the *MoiseGroup* icon and click on the graphic area. Thus it appears a dialog that allows specifying the Group name.
  - ii. **Create a Role:** You must select from tool bar the *MoiseRole* icon and click on the graphic area. Thus it appears a dialog that allows specifying:
    - The name of the role (*MoiseRolename*);
    - The allowed maximum number of agent that can play that role (*MoiseMaxAscribe*);
    - The allowed minimum number of agent that can play that role (*MoiseMinAscribe*);
    - The group that it belongs (*MoiseGroupContainer*);
    - The abstract property.
  - iii. **Create a MoiseScheme:** you must select from the tool bar the *MoiseScheme* icon and click on the graphic area. Thus it appears a dialog that allows specifying the

Scheme name and the root goal that the scheme allows to reach (SchemeRootGoal).

- iv. **Create a MoiseMission:** you must select from the tool bar the *MoiseMission* icon and click on the graphic area. Thus it appears a dialog that allows specifying:
  - The Mission name;
  - The maximum number of roles that can commit with the mission;
  - The minimum number of roles that must commit with the mission;
  - The Scheme that it belongs (MoiseSchemeContainer).
- v. **Create an Organizational Link:** It is permitted only between two roles. You must select the Organizational Link from tool bar and click one of the boundary marker not labelled of the source role (see figure 1). Select the MoisePortOut from the dialog that appears and click ok. Then click on the analogous marker of the target role and select the MoisePortIn. Then you can modify the properties of the relationship.



**Figura 1: Markers of role element.**

- vi. **Create a Compatibility Link:** It is permitted only between two roles. You must select the Moise Compatibility Link from tool bar and click one of the boundary marker not labelled of the source role (see figure 1). Select the MoisePortOut from the dialog that appears and click ok. Then click on the analogous marker of the target role and select the MoisePortIn. Then you can modify the properties of the relationship.
- vii. **Moise Norm Link:** It is permitted only from a role to a mission. You must select the Moise Norm Link from the tool bar and click one of the boundary markers labelled

“A” of the role (see figure 1). Then click on a marker of the Mission. Then you can modify the properties of the relationship.

- viii. **Generalization:** It is permitted only between two roles. You must select the generalization Link from the tool bar and click one of the boundary marker not labelled of the source role (see figure 1). Select the *MoisePortOut* from the dialog that appears and click ok. Then click on the analogous marker of the target role and select the *MoisePortIn*. Then you can modify the properties of the relationship.
- ix. **Dependency:** It is a relation between a group and a scheme or between a two schemes. You must select the Dependency Link from the tool bar and click one of the boundary markers of the source scheme/group. Select the *MoisePortIn* from the dialog that appears and click ok. Then click on the analogous marker of the target scheme/group and select the *MoisePortOut*. Then you can modify the properties of the relationship.

## 2) Scheme Structural Diagram (SSD)

- a. If you select the Scheme Structural Diagram from Create Graph dialog you must write the name of the graph and click ok button.
- b. Then it appears the Scheme Structural Diagram (SSD) window. This window it composed of a specific tool bar with all possible elements permitted for this kind of diagram.
- c. For example:
  - i. **Create a MoiseScheme:** you must select from the tool bar the *MoiseScheme* icon and click on the graphic area. Thus it appears a dialog that allows specifying the Scheme name and the root goal that the scheme allows to reach (*SchemeRootGoal*).
  - ii. **Create a MoiseMission:** you must select from the tool bar the *MoiseMission* icon and click on the graphic area. Thus it appears a dialog that allows specifying: the Mission name; the maximum number of roles that can commit with the mission; the minimum number of roles

that must commit with the mission; The Scheme which it belongs (MoiseSchemeContainer).

- iii. **Create a MoiseGoal:** you must select from the tool bar the *MoiseGoal* icon and click on the graphic area. Thus it appears a dialog that allows specifying: the goal name; the goal type and the time to fulfil (ttf) property.
- iv. **Dependency:** It is a relation between two schemes. You must select the Dependency Link from tool bar and click one of the boundary markers of the source scheme. Select the MoisePortIn from the dialog that appears and click ok. Then click on the analogous marker of the target scheme and select the MoisePortOut. Then you can modify the properties of the relation.
- v. **Aggregation:** you must select from the tool bar the Aggregation relation and click one of the boundary marker of the mission and then click on a marker of the goal to be aggregated.

### 3) Scheme Functional Diagram (SFD)

- a. If you select the Scheme Functional Diagram from Create Graph dialog you must write the name of the graph and click ok button.
- b. Then it appears the Scheme Functional Diagram (SFD) window. This window it composed of a specific tool bar with all possible elements permitted for this kind of diagram. This diagram is an instance of a Uml activity diagram but for our purpose we have introduced only the object and the relations useful to model the goal decomposition tree of the scheme.

### 4) Goal Structural Diagram (GSD)

- a. If you select the Goal Structural Diagram from Create Graph dialog you must write the name of the graph and click ok button.
  - i. **Create a OR decomposition:** you must add an OR construct element and then add two association relations between the centre of the relation 1 and the

OR construct and between the centre of the relation 2 and the OR construct.

- ii. **Create a AND decomposition:** Analogous to the previous.

### **Moise XML generation**

In order to generate the Moise xml code you must follow the sequence below reported:

- a. Right click on your SFD instance from Graphs area in the Graph Browser tab of Metaedit window and select *Generate*. Thus in the pop up select the *MoiseSFDGenerator* item.
- b. Execute the same procedure for the others SFD you have designed.
- c. Right click on your SSD instance from Graphs area in the Graph Browser tab of Metaedit window and select *Generate*. Thus in the pop up select the *MoiseSSDGenerator* item.
- d. Finally right click on your OD instance from Graphs area in the Graph Browser tab of Metaedit windows and select *Generate*. Then in the pop up select the *MoiseODGenerator* item.
- e. The whole xml code is in the OD.xml file.