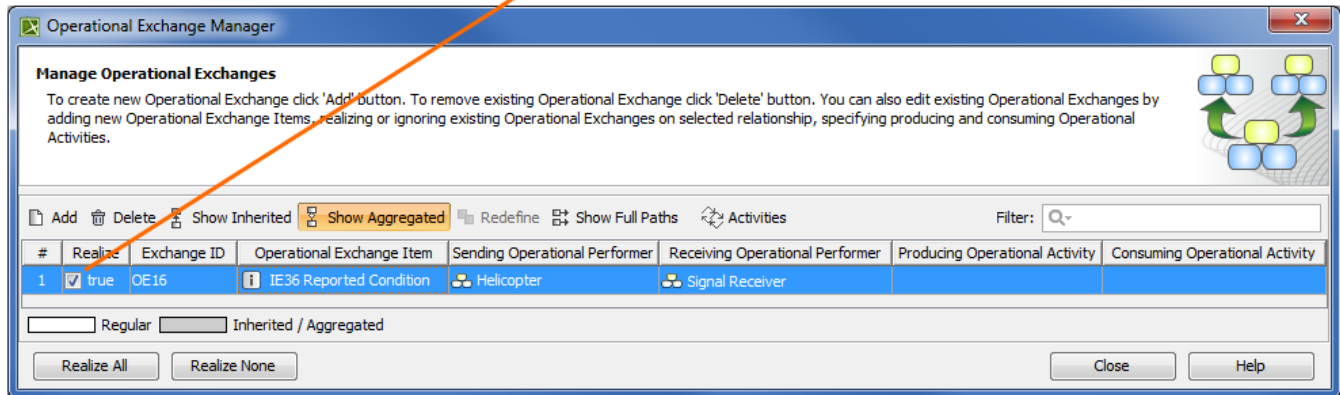
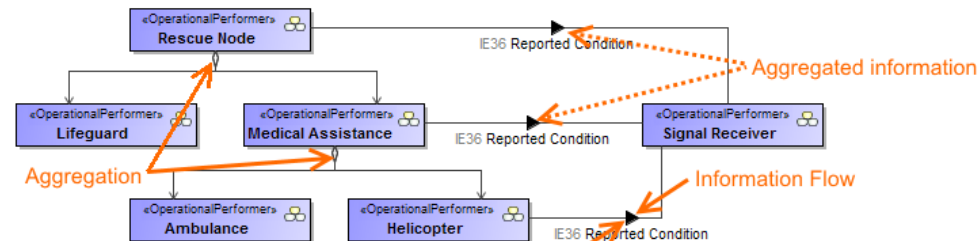


Inheritance, Aggregation, Composition, and Redefinition of Exchanges

The Operational Exchanges and Resource Exchanges can be inherited, aggregated, or composed. You can redefine the inherited flows.

You can see the inherited, aggregated, and composed exchanges in:


- [Operational Exchange Manager](#) dialog
- [Resource Exchange Manager](#) dialog
- Role-based tables [OV-3](#), [NOV-3](#), [SV-6](#), [NSV-6](#), [L3](#), and [P3](#).

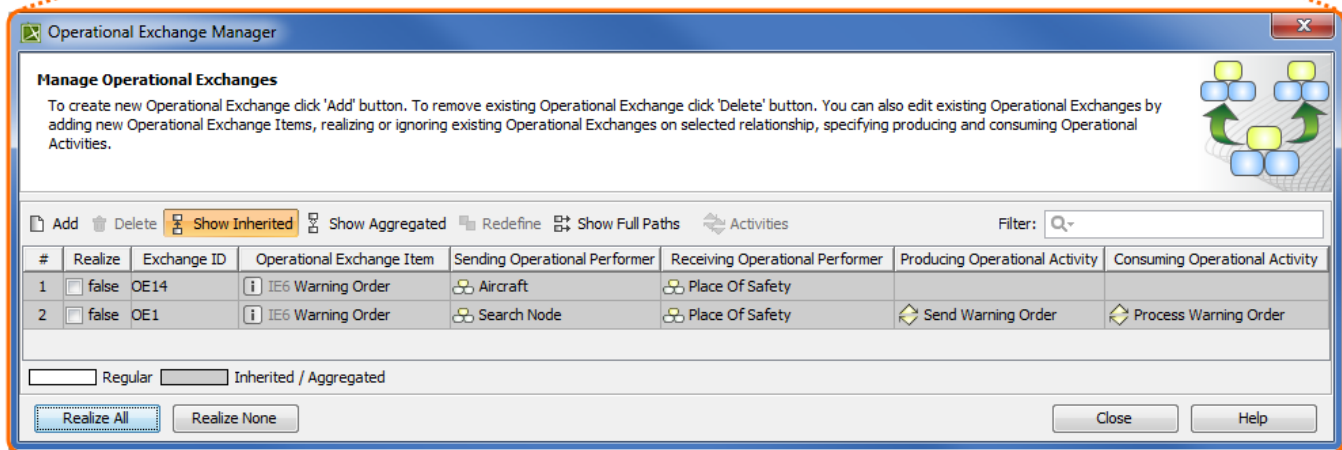
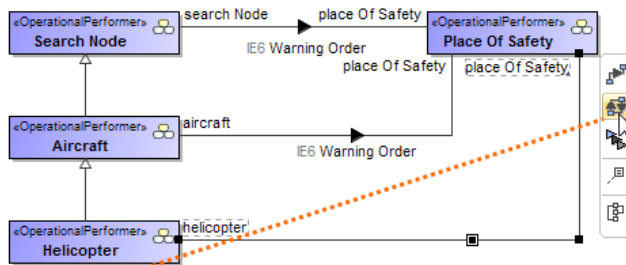


Case Study

Let's say, we have Operational Performers *Search Node* and *Place Of Safety* related with the Operational Exchange *Warning Order*. The Operational Performer *Aircraft* specifies Operational Performer *Search Node*. Then we draw an association between *Aircraft* and *Place Of Safety*. In this case, the drawn association inherits the Operational Exchange information that can be realized or not and also can be redefined.

Let's realize the Operational Exchange. We can do this in two ways:

- By clicking  in the association smart manipulator toolbar.
- By selecting the check box in the Realize column of the [Operational Exchange Manager](#) dialog.



i To hide inherited exchanges in dialogs

1. Click **Options > Project**.
2. In the **Project Options** dialog, select **General > UAF**.
3. Set the **Respect UAF Information Flows on Generalization** property value to *false*.

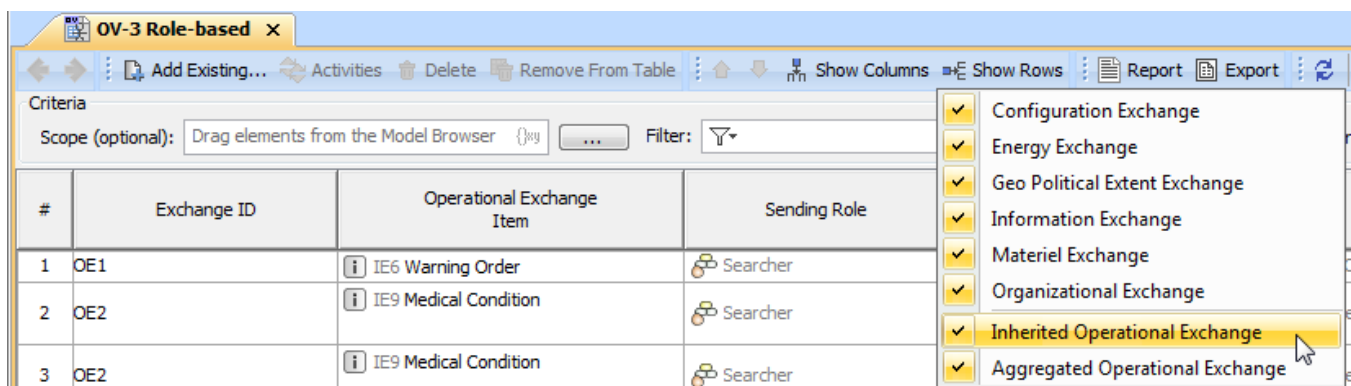


- The exchange is not created for the drawn association, it is only realized.
- The realization of the exchange will be removed from the association when Generalization or Exchange is removed.

All the inherited exchanges can be also seen in the role-based tables. The inherited exchange rows are displayed in gray.

To see the inherited exchanges

1. On the table toolbar, select **Show Rows** and then click the **Inherited Operational Exchange** or **Resource Exchange** button.



When we have the inherited Operational Exchange, we can redefine it. This means, that the inherited Operational Exchange will be copied together with the information such as Actual Measurements, Conveyed Items, Documentation. The new Operational Exchange will be created in the model.

```
graph TD
    subgraph SearchNode [«OperationalPerformer» Search Node]
        direction TB
        searchNode[search Node]
    end
    subgraph Aircraft [«OperationalPerformer» Aircraft]
        direction TB
        aircraft[aircraft]
    end
    subgraph Helicopter [«OperationalPerformer» Helicopter]
        direction TB
        helicopter[helicopter]
    end
    subgraph PlaceOfSafety [«OperationalPerformer» Place Of Safety]
        direction TB
        pos1[place Of Safety]
        pos2[place Of Safety]
        pos3[place Of Safety]
    end
    searchNode -- "IE6 Warning Order" --> pos1
    aircraft -- "IE6 Warning Order" --> pos2
    helicopter -- "IE6 Warning Order" --> pos3
```

Operational Exchange Manager

Manage Operational Exchanges

To create new Operational Exchange click 'Add' button. To remove existing Operational Exchange click 'Delete' button. You can also edit existing Operational Exchanges by adding new Operational Exchange Items, realizing or ignoring existing Operational Exchanges on selected relationship, specifying producing and consuming Operational Activities.

Add

Delete

Show Inherited

Show Aggregated

Redefine

Show Full Paths

Activities

Filter:

#	Realize	Exchange ID	Operational Exchange Item	Sending Operational Performer	Receiving Operational Performer	Producing Operational Activity	Consuming Operational Activity
1	<input checked="" type="checkbox"/> true	OE15	IE6 Warning Order	Helicopter	Place Of Safety		Redefined
2	<input type="checkbox"/> false	OE1	IE6 Warning Order	Search Node	Place Of Safety	Send Warning Order	Process Warning Order
3	<input type="checkbox"/> false	OE14	IE6 Warning Order	Aircraft	Place Of Safety		

☐ Regular ☐ Inherited / Aggregated

Realize All

Realize None

Close

Help

To redefine the Operational Exchange

1. In the **Operational Exchange Manager** dialog, select the inherited Operational Exchange and click the **Redefine** button. The new Operational Exchange is created.

All the information that comes from the inherited exchange when redefining it can be modified in the model.