



# User Guide



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## User Guide:

### Ontology Management System (OMS) tutorial

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# 1 Introduction









This tutorial introduces the reader to the basic concepts and features of the Ontology Management System (OMS). It helps legal experts to create and maintain domain ontologies that can be used during the qualification process by using the Virtual Company Dossier.

The Virtual Company Dossier relies on the services of the European VCD system (EVS). The EVS provides decision support for deriving evidences in order to meet the required criteria defined in a Call for Tender pursuant to the underlying legal rule sets in accordance to European and national procurement legislations. The EVS service and its user interfaces make functionality and decision support accessible to other systems and users in order to create a data skeleton structure (VCD Package Skeleton) to the Economic Operator that can be used to include evidences accordingly. It also provides a service interface to the VCD Designer.

The rule sets of the EVS are represented as machine interpretable ontologies. The OMS provides the editing and management functionality for the different ontologies to keep the legal rule sets up to date. This tutorial explains the major icons, steps and elements of the OMS that are needed to work with the system.

# 2 Icons

This section introduces major icons of the OMS.

- ▶ Blue folder  : Criterion Group
- ▶ EU Flag  : EU Criterion
- ▶ Little blue rectangle  : National Atomic Criterion
- ▶ Two little blue rectangles  : National Combined Criterion
- ▶ Yellow roll of paper  : Evidence
- ▶ Wizard with pointy blue hat  : Criterion Requirement (for whom will this criterion be suggested)
- ▶ Yellow paper rectangle with blue circle with exclamation mark  : Evidence Restriction (for whom can this Evidence be issued)
- ▶ Two eyes  : parts that are visible within the ontology

# 3 Workspaces

There are different workspaces (queries) which can be used to maintain and change elements. The most comprehensive one is the Query: **EU Criteria -> National Criteria -> National evidence**. This query shows all elements within a tree structure.

Two further queries (overview of national evidence / overview of national criteria) provide a summary view of evidences and criteria.

The last query collects ToDo's that have been defined within the system.

The figure below shows the different queries.

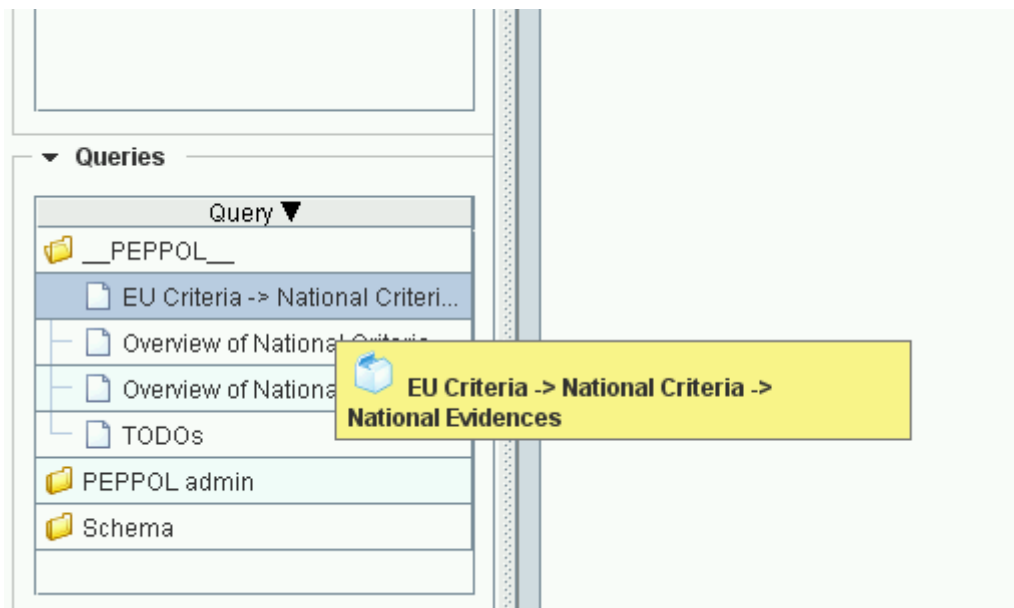


Figure 1: Workspaces (Queries)

## 4 Editing elements

Each element within the OMS can be changed by the user. The default way how to edit elements within the system is by using a right mouse button and by selecting “Open” afterwards as shown in the figure below

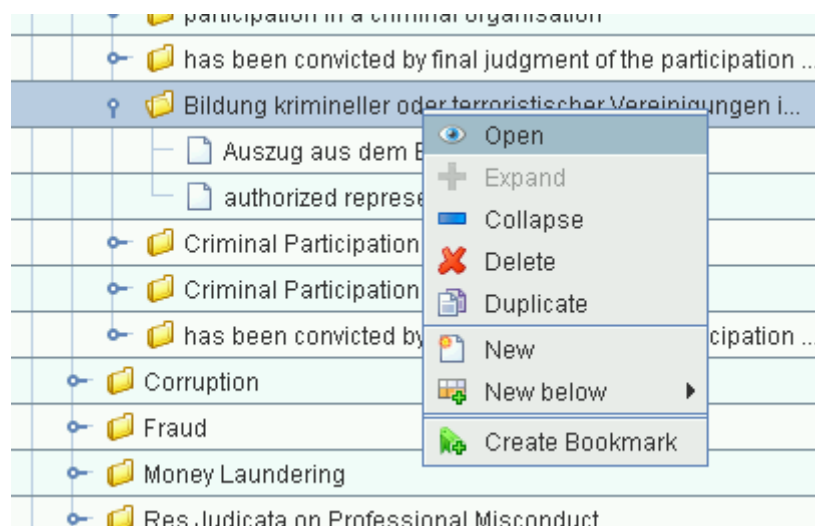


Figure 2: Editing elements

Within the default workspace view (query) all elements are listed within a tree structure as shown in the figure above.

The top level of the tree structure defines the European qualification criteria (according to directive 2004/18/EC). Each European qualification criteria relates to one or more national criteria, each national criteria to one or more evidences as shown in the figure below.

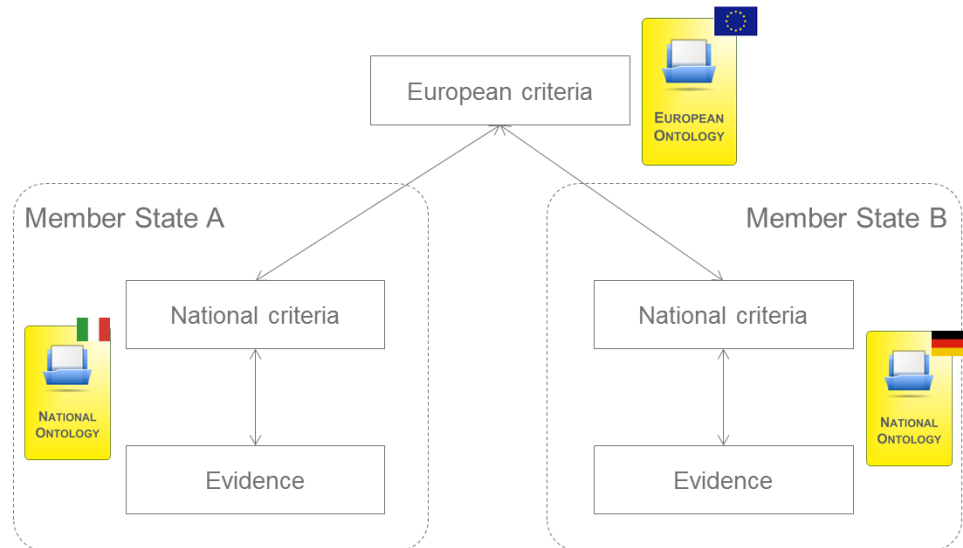


Figure 3: Tree structure of OMS

## 5 Editing Criteria Definitions

In order to define a criterion correctly the following elements have to be provided:

- ▶ **Name:** Criterion short name according to English and national language
- ▶ **Legal reference:** The reference to the national legislation
- ▶ **Legal text:** The underlying text of a legal reference or the meaning of a criterion according to English and national language
- ▶ **Annotation:** Provide additional user hints for a criterion,
- ▶ **Criterion/Evidence (Tab):** Define the replacement rule for a criterion as a minimum substitution level
- ▶ **To Do (Tab):** Assign To Do's for a specific criterion

The following figure shows a screenshot of the criterion editing interface.

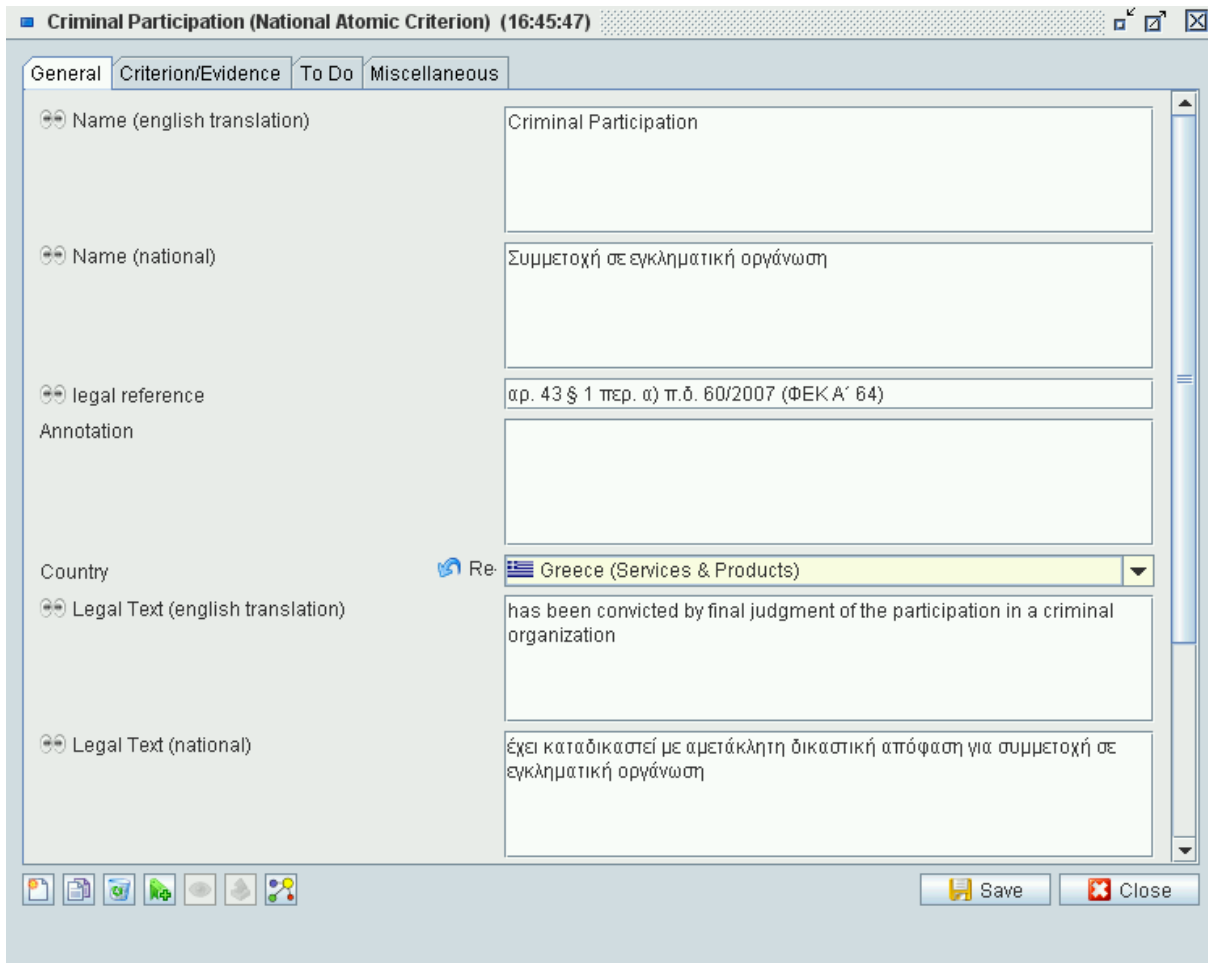


Figure 4: Editing Criteria

## 6 Add new elements

Within the tree structure the right mouse button can be used to modify or add certain elements. The menu “**new below**” provides the possibility to add an element below the element that has been highlighted during the click on the right mouse button. The element new below can be used on the following levels:

- ▶ On the EU criteria level it can be used to **define (further) national criteria**.
- ▶ On the national criteria level it can be used to **define (further) national evidences**.

### 6.1 Add new criterion

When defining (further) national criteria through the menu element “new below” there are three possibilities to choose. The figure and listing below explain the elements that can be used:



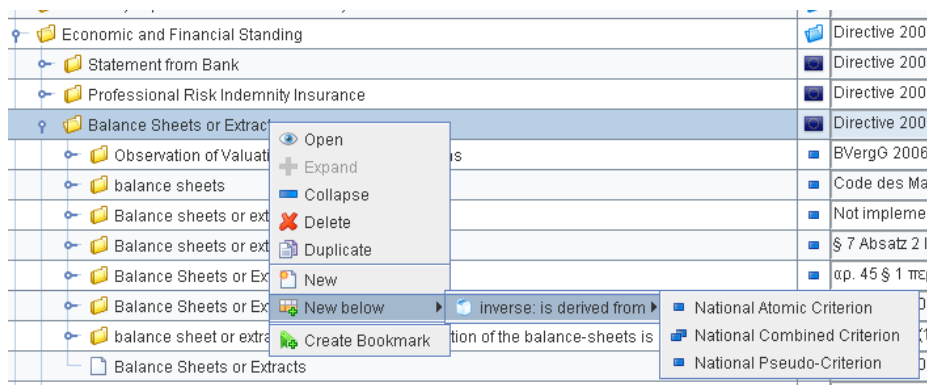


Figure 5: Define National Criteria

- ▶ **National Atomic Criterion:** This element should be used if one EU criterion is represented in the national law through exactly one national criterion.
- ▶ **National Combined Criterion:** This element should be used if one EU criterion is represented in the national law through more than one national criteria.
- ▶ **National Pseudo-Criterion:** This element should be used if one EU criterion has not been implemented in the national law. A national pseudo-criterion offers the possibility to define a national criterion without a specific national legal grounding (e.g. by adopting the translations of the EU directive).

## 6.2 Add new evidence

Having a closer look to the **definition of (further) national evidences** the following menu options are provided by the system:

- ▶ **Inverse: gives evidence to** - Define evidences generically in case there is only one valid evidence for a specific criterion. The system will automatically set the value to primary evidence.
- ▶ **Applicable: Criterion Requirements** – Define requirements for a certain criterion (e.g. if criteria only have to be proven by subcontractors or natural persons)
- ▶ **Inverse: gives evidence to (primary evidence)** – Define primary evidences (valid legal proof) in case of more than one suitable evidence. Primary evidence should be used for each evidence that is valid legal proof in all cases.
- ▶ **Inverse: gives evidence to (secondary evidence)** – Define secondary evidences (alternative proofs) in case of more than one suitable evidence. Secondary evidence should be only used in cases where the secondary evidence is of less value (e.g. not valid in all cases) than the primary evidence.

The following figure provides an overview about the available menu options.

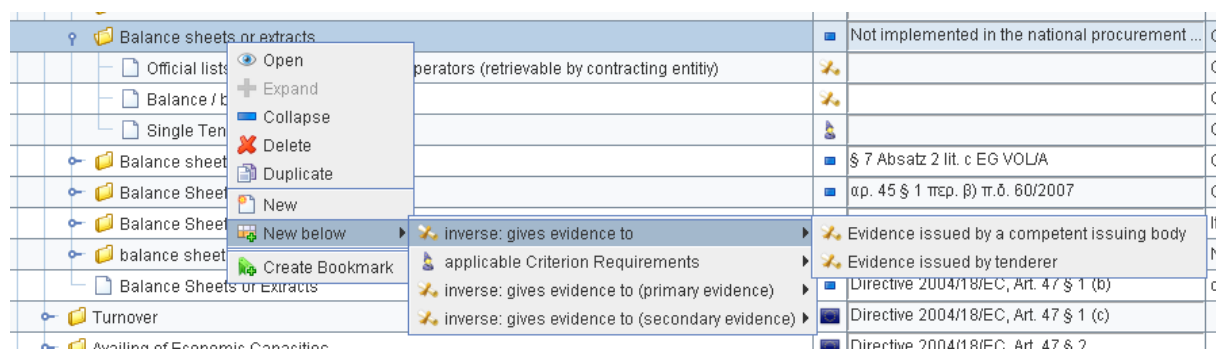


Figure 6: Define Evidences

As one can see, there is another option at the end of the menu when including evidences to criteria. Each evidence has to be formally defined either as **evidence issued by a competent issuing body** or as **evidence issued by a tenderer**.

The “**new below**” menu also offers the possibility to define “**Criterion requirements**” on the criterion level and to define “**Evidence restrictions**” on the evidence level. Criterion Requirements indicate for whom a criterion will be suggested (e.g. for subcontractors) while evidence restrictions define for whom an evidence can be issued (e.g. for natural persons). Both elements can be used to narrow the use of criteria and evidences but this will be only visible to the user through suggestions and hints. The use of criterion requirements and evidence restrictions is not changing the default behaviour of the system.

## 7 Assign multiple criteria to an evidence using drag & drop

In many cases one evidence refers to multiple criteria. In this case it is recommended to only define a single evidence and to interlink this evidence to all relevant criteria. In order to assign multiple criteria to one evidence a drag & drop feature can be used. The figure below shows a general overview about the drag & drop feature.

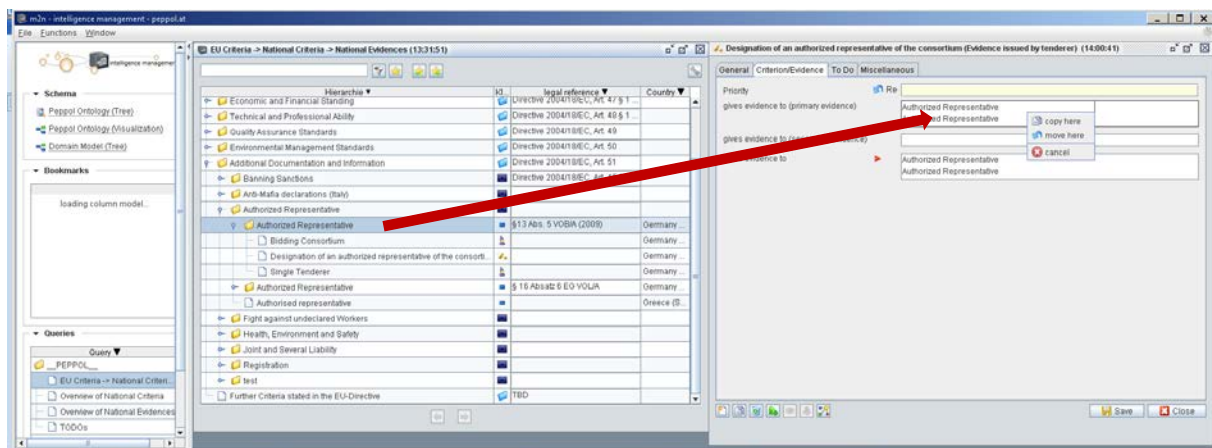


Figure 7: Assign multiple criteria to an evidence using drag & drop

As one can see there are two screens opened at the same time within the OMS interface. The screen on the left hand side is the major workspace which can be accessed through the Query: EU Criteria -> National Criteria -> National evidence. On the right hand side one can see a screen which relates to an evidence that has been defined at some place within the tree structure of the screen on the left hand side. In order to assign more than one criterion to an evidence the drag and drop feature can be used. Therefore a national criterion has to be dragged into the second tab (Criterion/Evidence) of the evidence screen. It can be dropped to any field named “**gives evidence to (...)**”. The differences among the three different options are explained in the chapter 6.2 add new evidence. Afterwards the menu icon “**move here**” should be chosen. In contrast “**copy here**” will create another instance of the same evidence. The following two figures show the previous screen in a bigger size.

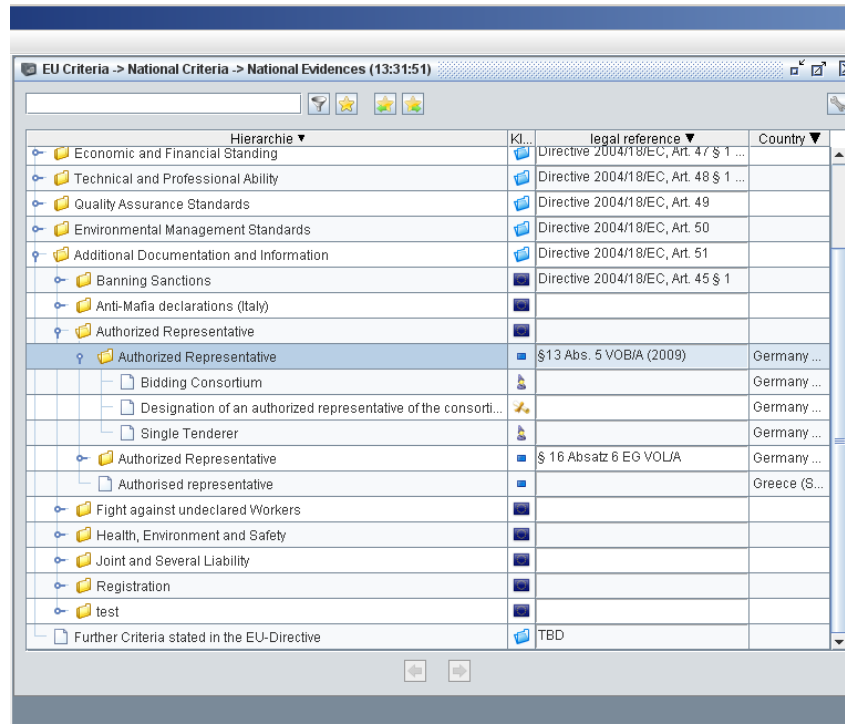


Figure 8: Select a national criteria, drag it to the second screen and ...

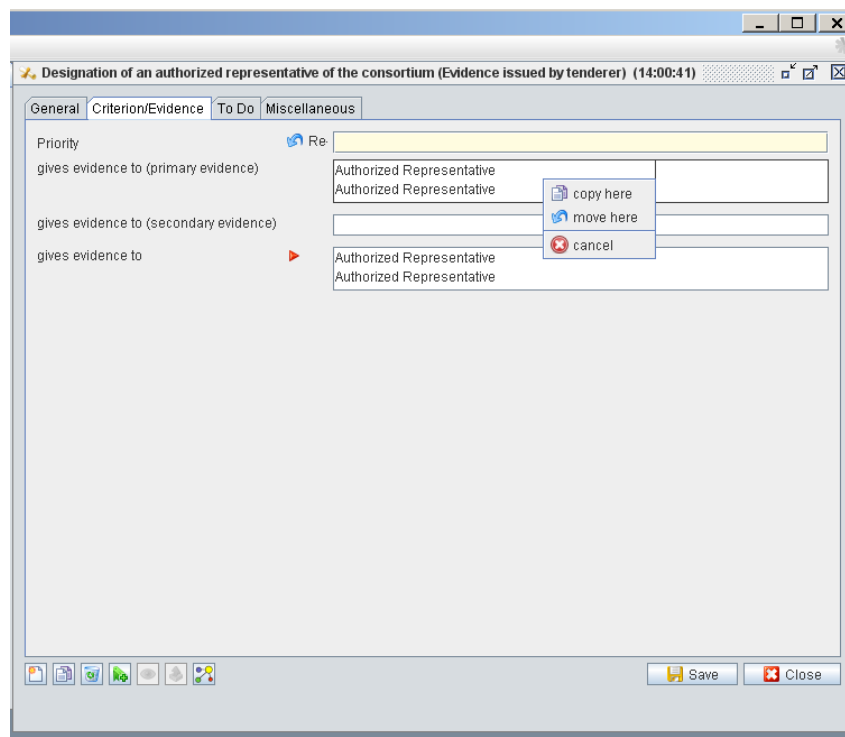


Figure 9: ... drop it into the target field using „move here“

## 8 Save changes and Synchronization

From time to time the system asks the user to save changes. Through confirmation all changes are saved. The system also automatically saves at certain points. Once the changes are done it is

possible to synchronize the updates with the live system. The synchronization process is not fully automated yet, as there are some quality checks that have to be done by the implementation team prior to publication. The figure below shows where to find the Synchronization menu.

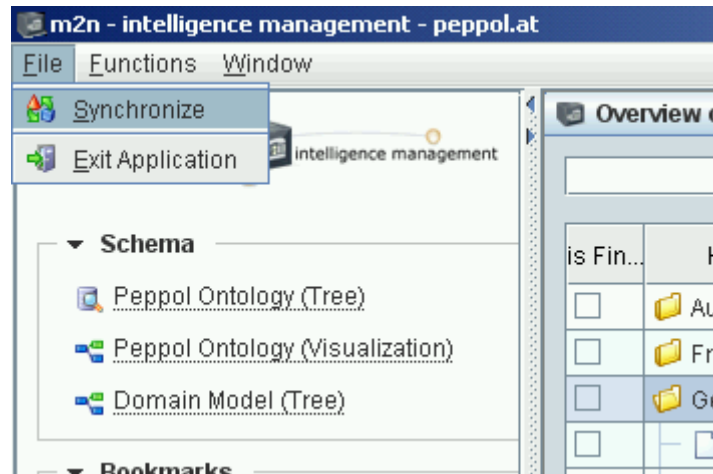


Figure 10: Synchronization menu