ANNEX 3:

ARGOS
USER MANUAL

Activity B6 - Training

Argos User Manual

Argos Login

The Argos system is accessible via the Internet at the URL: http://services.txt.it/argos.

When the user connects to the Argos installation, the home page appears:

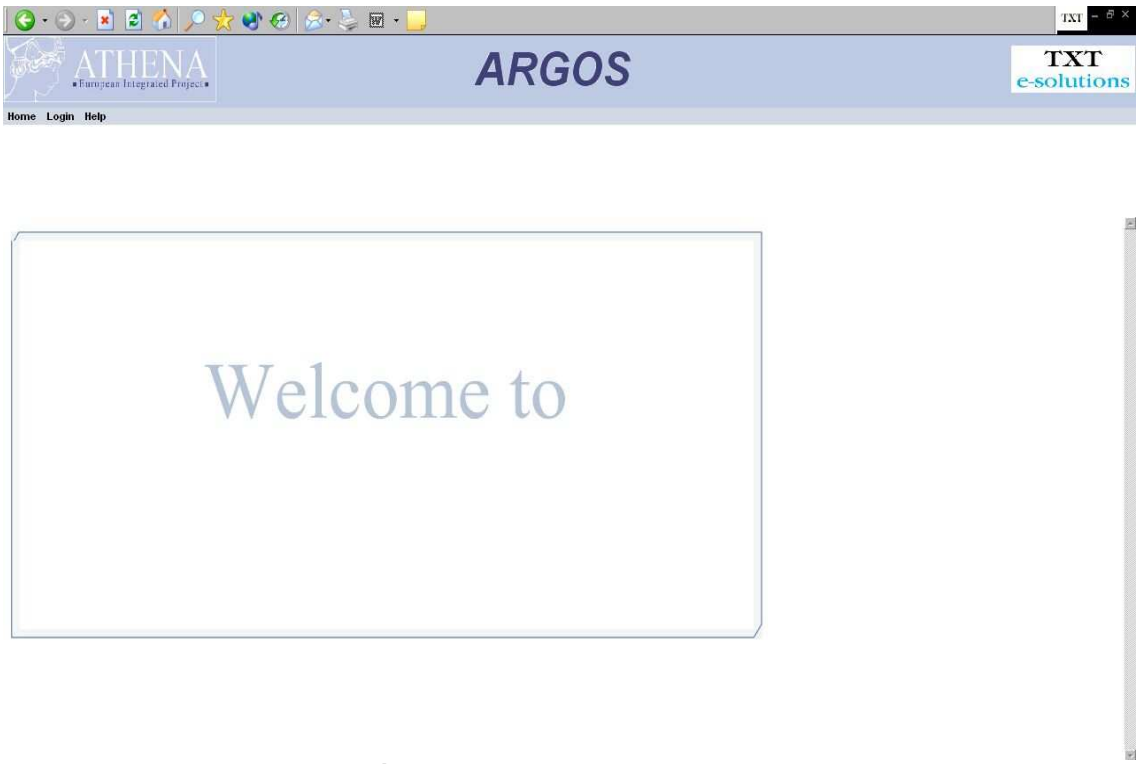

Figure 1 - Home page

This is the public page of the site where also not registered users can gather information about the project and the tool.

To enter the private zone of the site, a registered user clicks on the "Login" item and goes to the login page:

Figure 2 - Login page

Here the user has to fill in the following fields:

- the **User Name** field: with the user ID selected at registration time;
- the **Password** field: the related password selected at registration time;

By clicking on the "Enter" button the user submit the inserted data and, if correctly identified, he enters the private zone of the site.

If user name and/or password are wrong, the following message appears:

Figure 3 - Login error message

If the user is not yet registered inside the Argos system, he can click on the "New User" link. He will be redirect to the registration page where he will insert all required data:

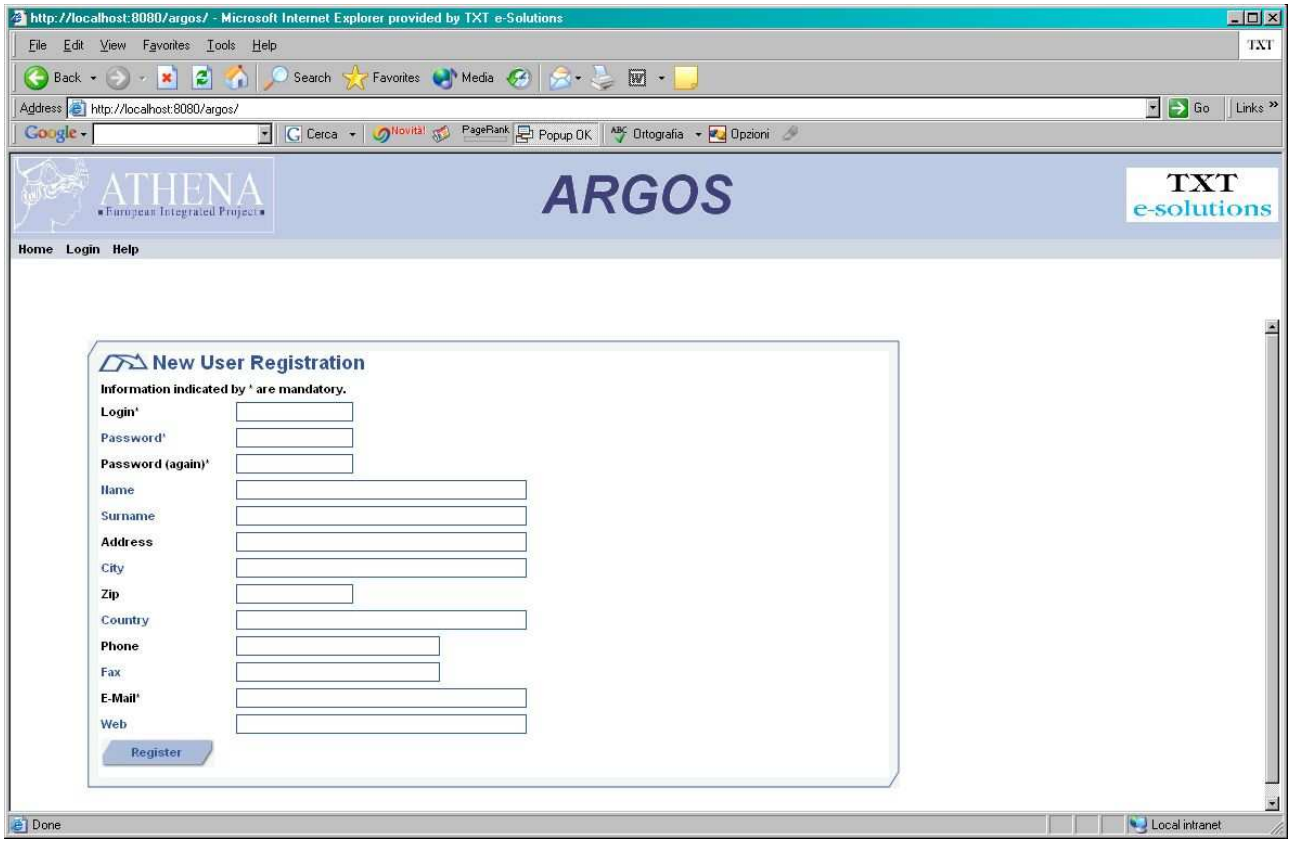

Figure 4 - Registration page

Here the user will create his username and password. He will click on the "Enter" button to enter the site. The registration procedure is not automatic. The request will be sent by email to the administrator of the site responsible for enable/disable logins.

Once the user has received the registration confirmation from the administrator always by email, the new Argos user can enter the Argos site from the Login page.

Note that each Argos user can create its own reconciliation rules and, each time he enters the site, he can only access and manages these rules.

Argos Logout

In order to disconnect (log out) from the Argos system, a user has just to click on the "Logout" item in the menu at the top of the page.

Figure 5 - Logout page

When a user connects the Argos private zone, he will find all the available Argos functionalities.

The first page that appears after log in the site is the form where the user can select the session settings for its elaborations. Note that the selected settings will be valid during the whole session lifetime and will be cancelled when the session will be closed (log-out).

From this page, the Argos user can select the document model and the reference ontology for which he's creating reconciliation rules and in which direction the reconciliation will be performed (from the schema to the ontology – RDF-Schema to RO – or from the ontology to the schema – RO to RDF-Schema). Then, he can save the settings for the current session by clicking on the "Save your settings" button.

Note that if the user doesn't make any choice, he will work with default settings defined at installation time.

Figure 6 - Settings page

Models selection

After clicking on the "Save your settings" button, the user is redirect to the first page of the rule creation module.

From this page the Argos user can see the visualization of the two selected models (identified as SOURCE and TARGET models) and selects from the menu on the top of the page which rule template he needs to apply.

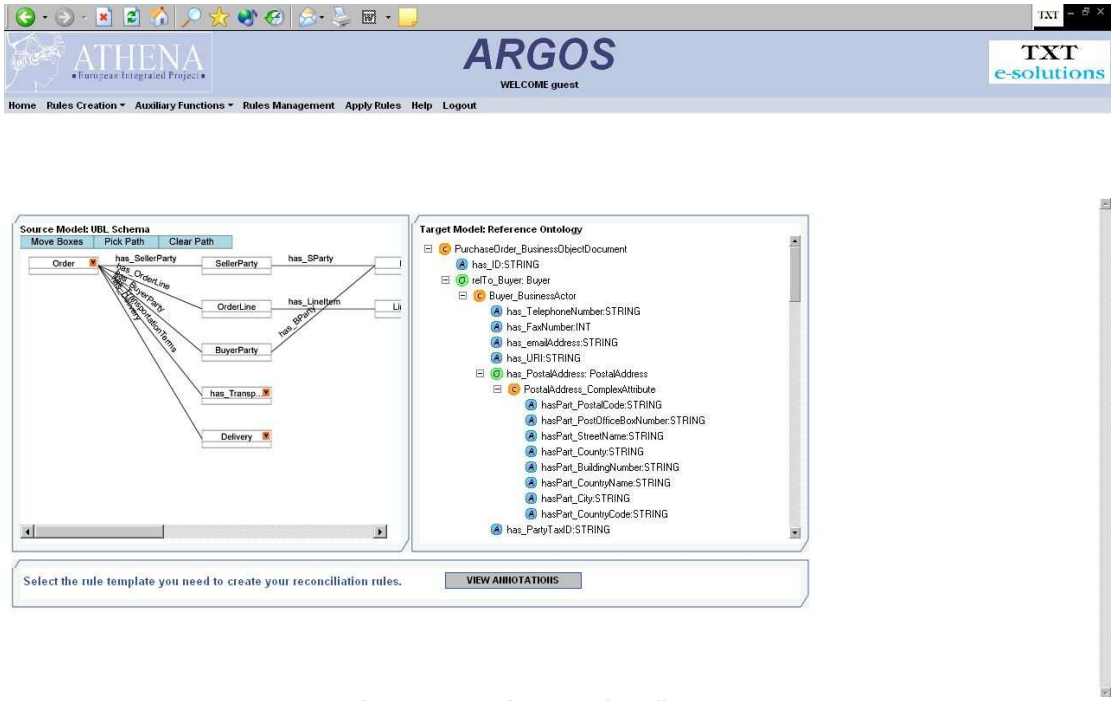

Figure 7 - Rule Creation first page

Moreover, still from this page, by clicking on the "View Annotation" button, the Argos user can have a look at the annotations created from the two selected models

through the A* tool:

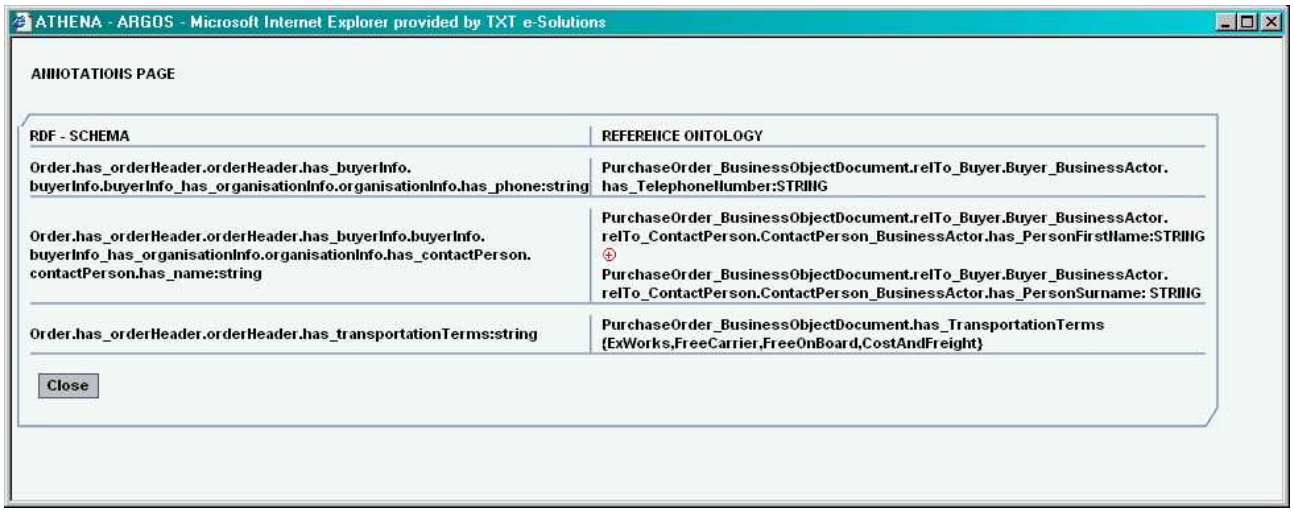

Figure 8 - Example of annotations page

Rules Creation

Each Argos user can create and manage only its own rules. To create new rules, he can select a rule template from the menu at the top of the page.

This menu contains links to use the entire rule templates provided by the Argos system.

Figure 9 - Rule Creation menu

For instance, the user selects from the Rule Creation menu the "map" rule template.

Map

Map is the function that allows to map the value of a concept of the source model to the value of another concept on the target model.

By clicking on the item "Map", the following page will be shown:

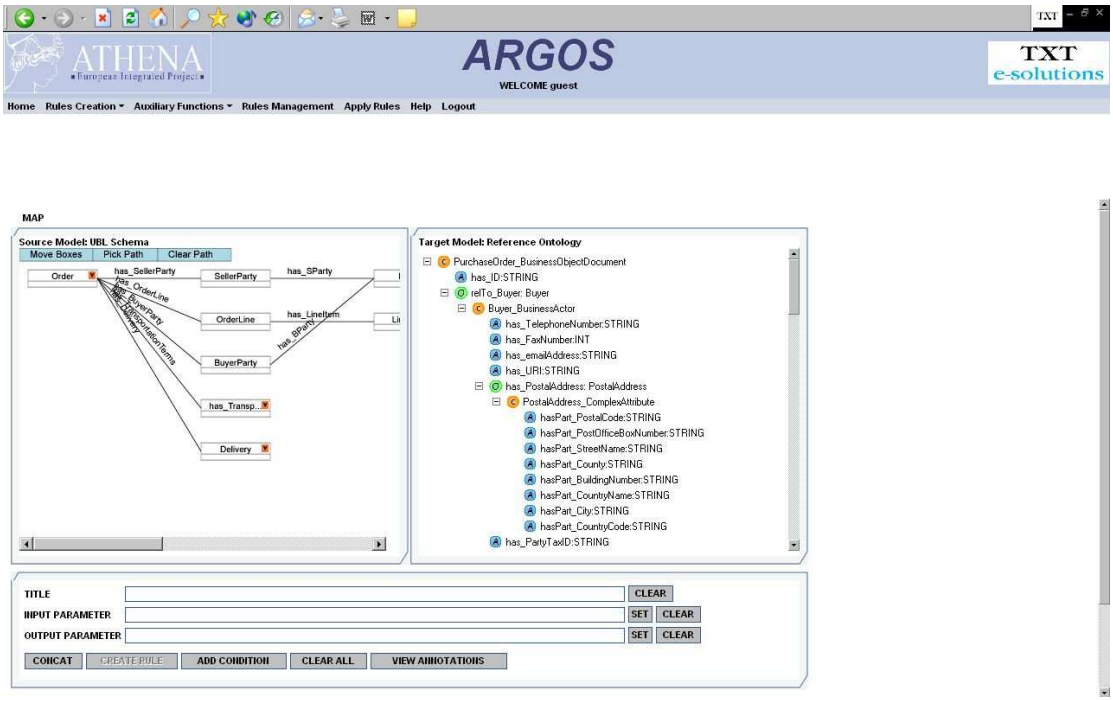

Figure 10 - Map Rule Template page

Now the user has to select the input node from the source model. First of all, the user has to insert the title of the rule under construction by inserting a name in the Title text box.

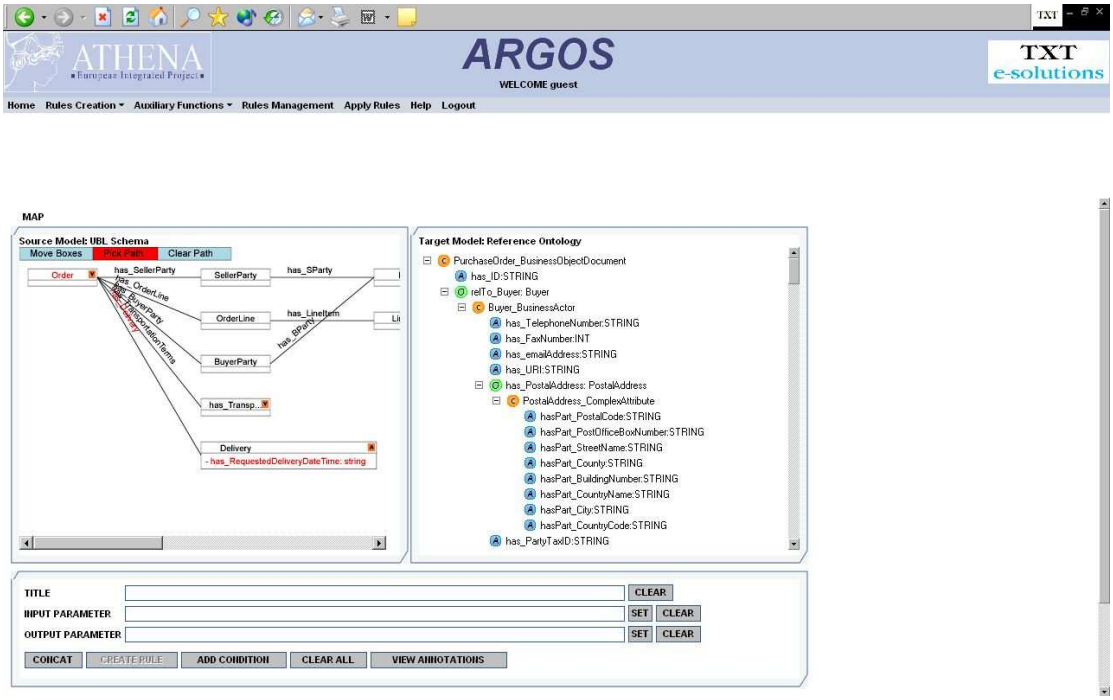

Figure 11 - Select path from source model

Then the Argos user has to select a path of a concept on the source model (source concept). To do that, he will perform the following steps:

- click on the "Pick Path" button on the source model
- select the first node (the root of the graph)
- select all relations between the root and the source concept
- select the leaf that represents the source concept

Then, he will click on the "Set" button on the left side of the input text box. The selected path will be shown in the input text area.

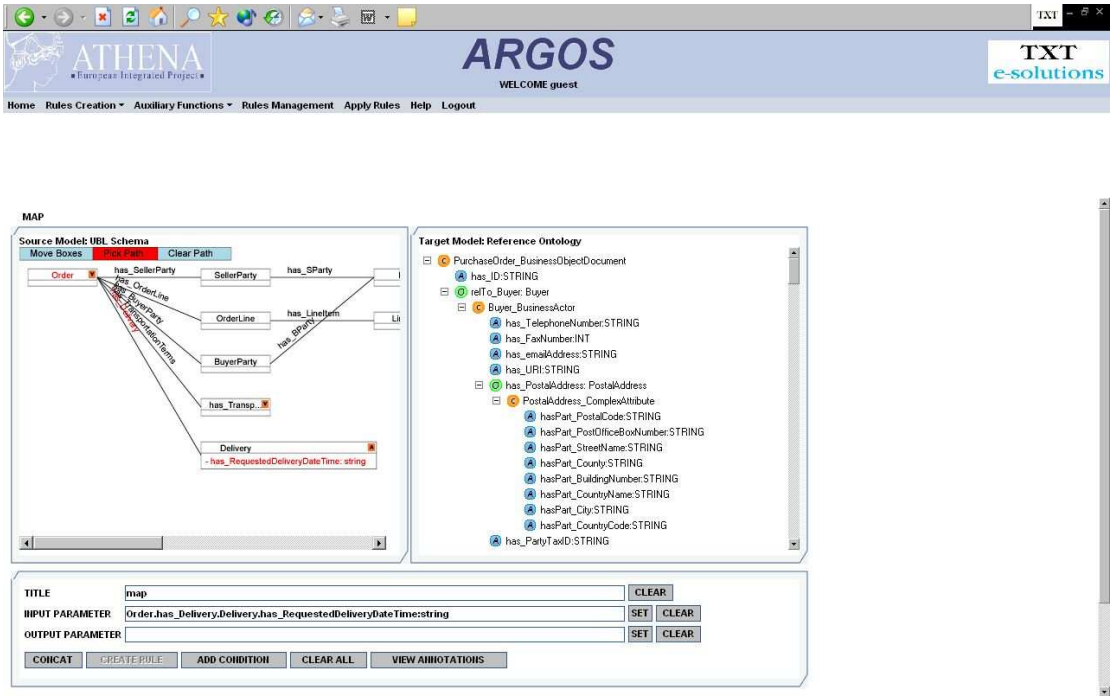

Figure 12 - Set input node

The Reference Ontology that in this case represents the target model of the reconciliation procedure is realized as an HTML object. To select a concept in the target model, the user can go through the Ontology structure and click with the right button of the mouse on the leaf representing the concept. Note that the whole path from the root to the concept is now highlighted in red color.

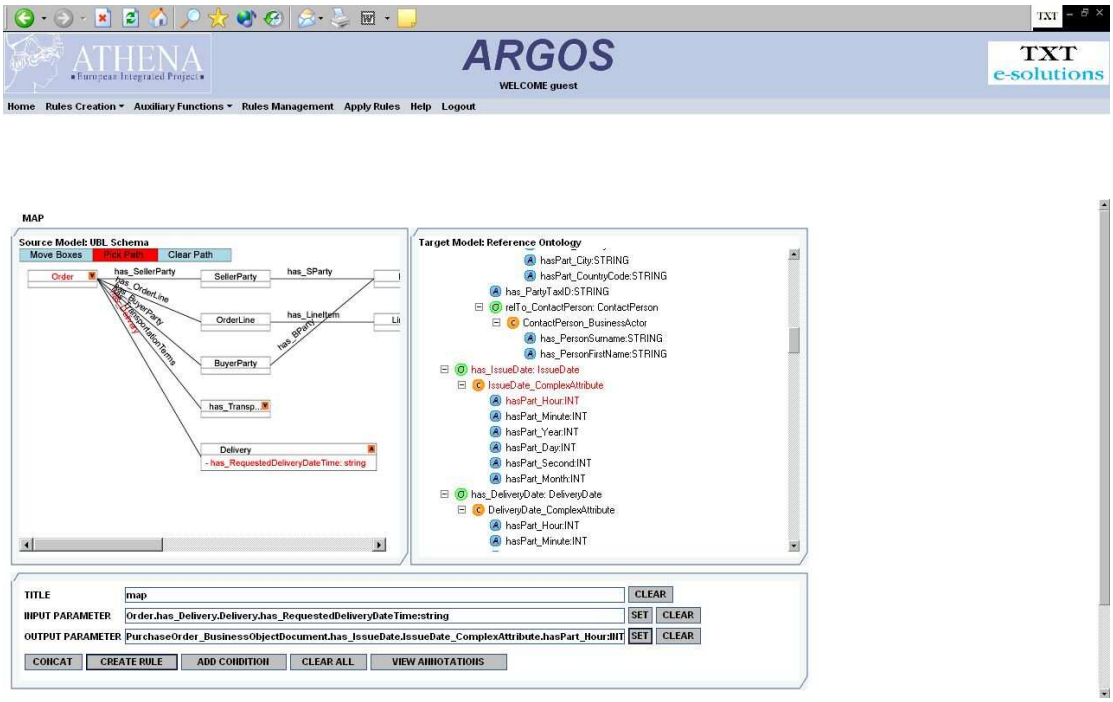

Figure 13 - Select path from target model

After have completed the paths selection, the user can decide to set a condition on application of the defined rule by clicking on "Add Condition" button. The following new items will be shown on the map page:

Figure 14 - Add condition

The user insert the condition concept from the source model by following the procedure explained just before, set the value to assign to the concept and clicks on "CREATE RULE" button.

Different messages can appear according to the results of the rule creation. If the rule has been created successfully, a confirmation message will be shown:

Figure 15 - Rule creation confirmation message

If during the creation some mismatch error has occurred, a warning message is shown:

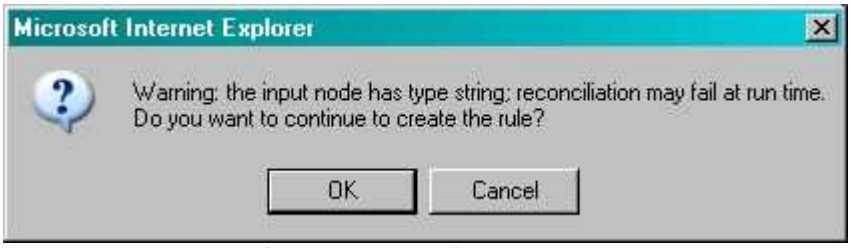

Figure 16 - Warning message

In this case the user can decide to create the rule even if there's the possibility to have runtime errors or to cancel the rule creation.

Map Table

The map table is the function that allows to map the value of a concept with type enumeration of the source model to the value of another enumeration concept on the target model.

By clicking on the item "Map Table", the following page will be shown:

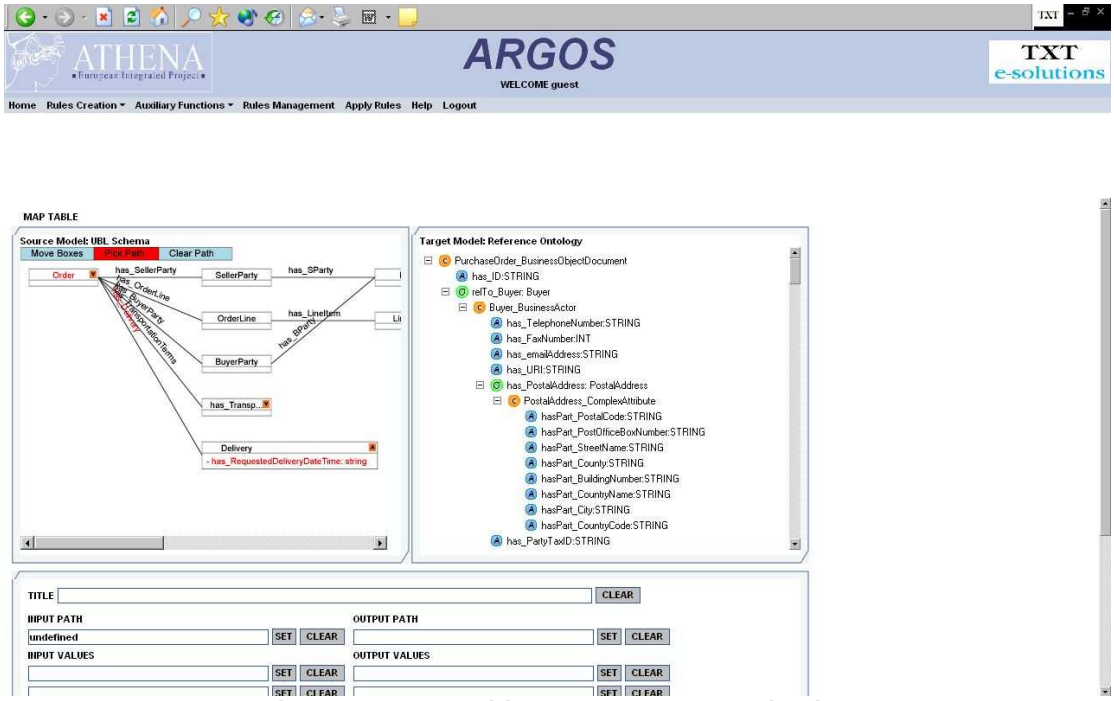

Figure 17 - Map table source concept selection

To apply this template the user has to select the source concept by following the already explained procedure. The concepts selected must have enumeration type, otherwise the following message will appear:

Figure 18 - Rule creation confirmation message

When the user click on "Set" button to select the input concept, the elements that compose the enumeration will fill the input table.

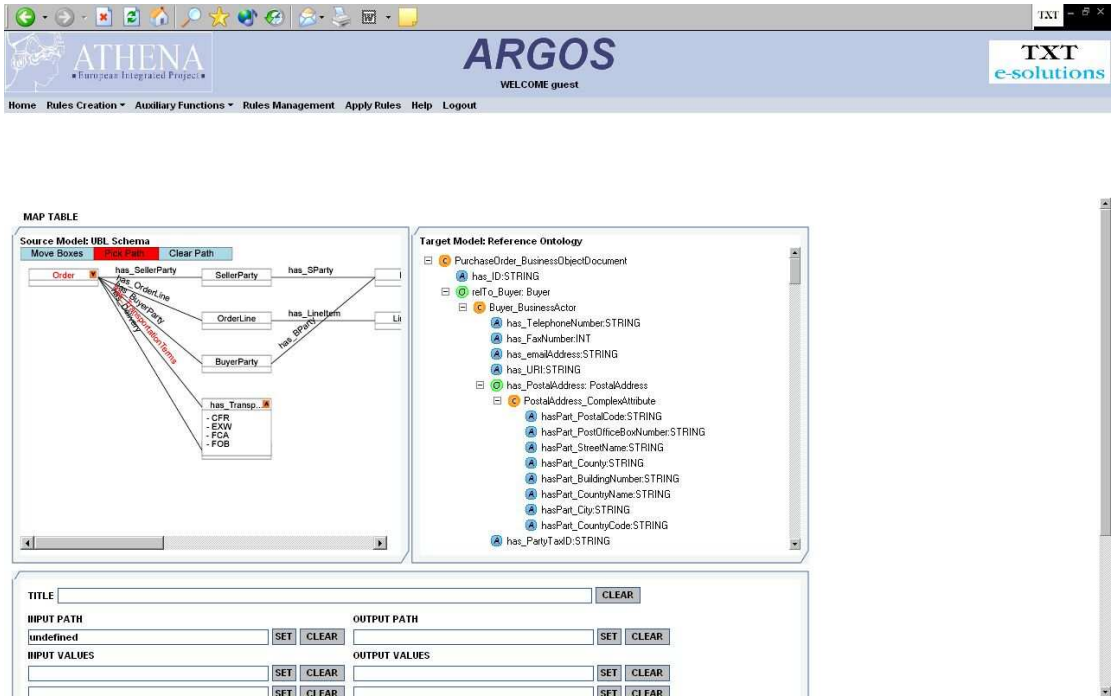

Figure 19 - Rule creation confirmation message

Now the user has to assign to each enumeration value a concept in the target model. By following the same selection procedure, the user select a concept that will be a value of a node enumeration and will click on the "Set" button corresponding to the source concept that must be mapped to the selected value.

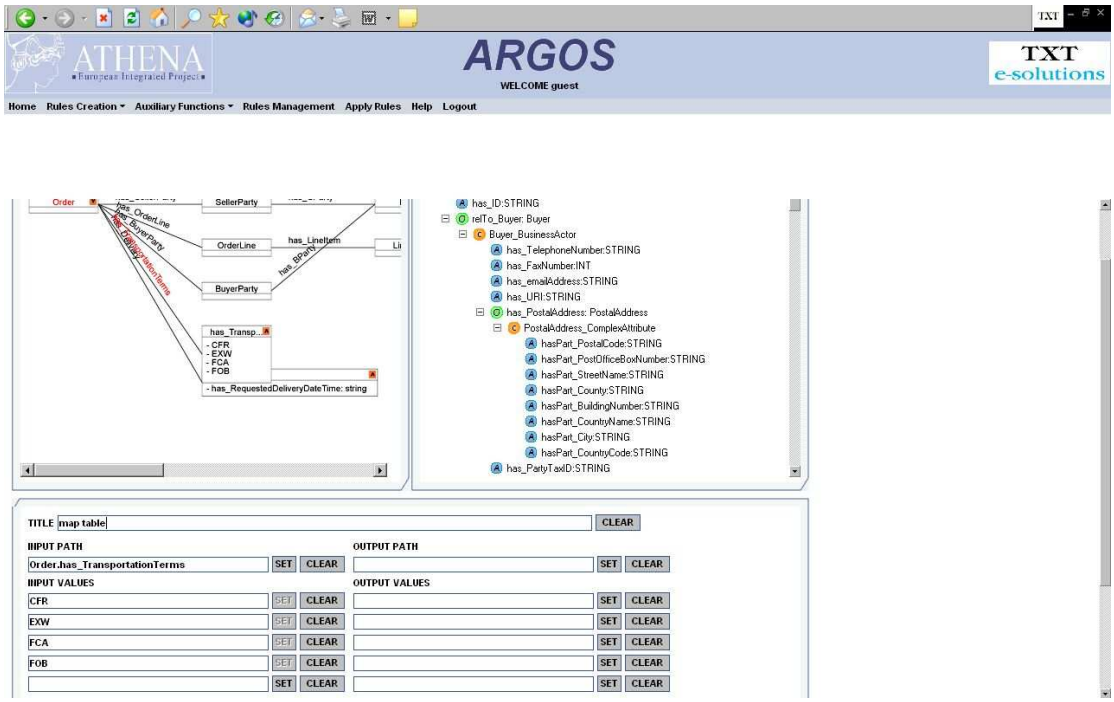

Figure 20 - Map table selection concepts

This operation has to be done for each value of the source concept.

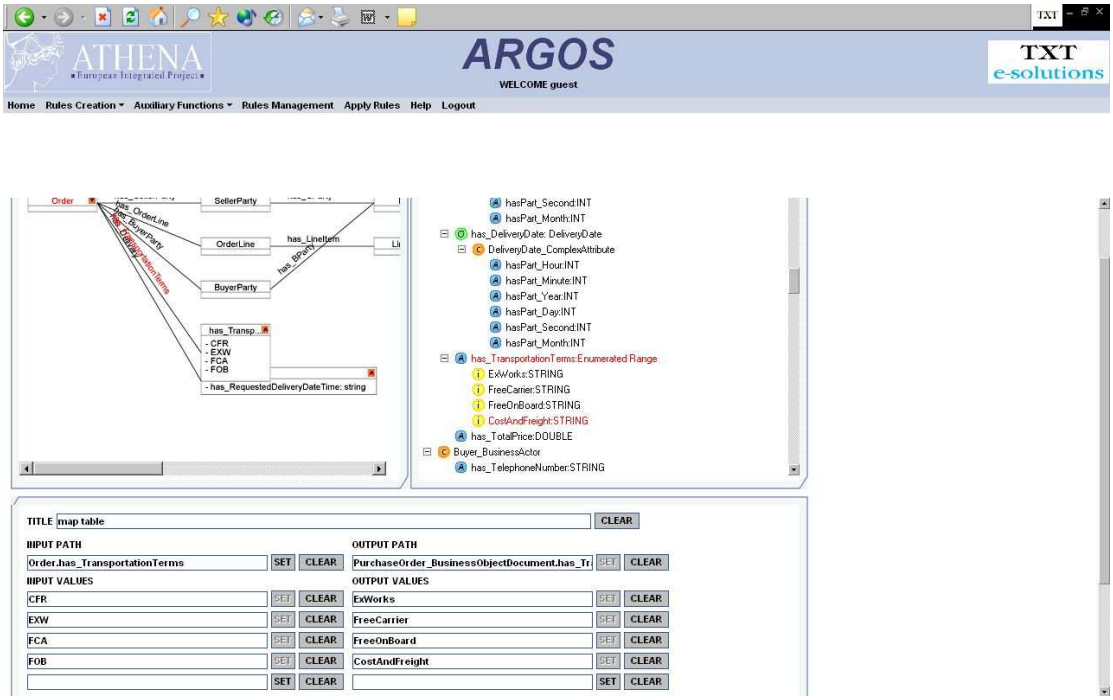

Figure 21 - Completed map table selection

Also in this case the user can decide to set a condition on application of the defined rule by clicking on "Add Condition" button. Then he clicks on the "CREATE RULE" button to finalize the procedure.

Convert

The convert is the function that allows to convert the value of a concept of the source model to the value of another concept on the target model by using a convention value.

By clicking on the item "Convert", the following page will be shown:

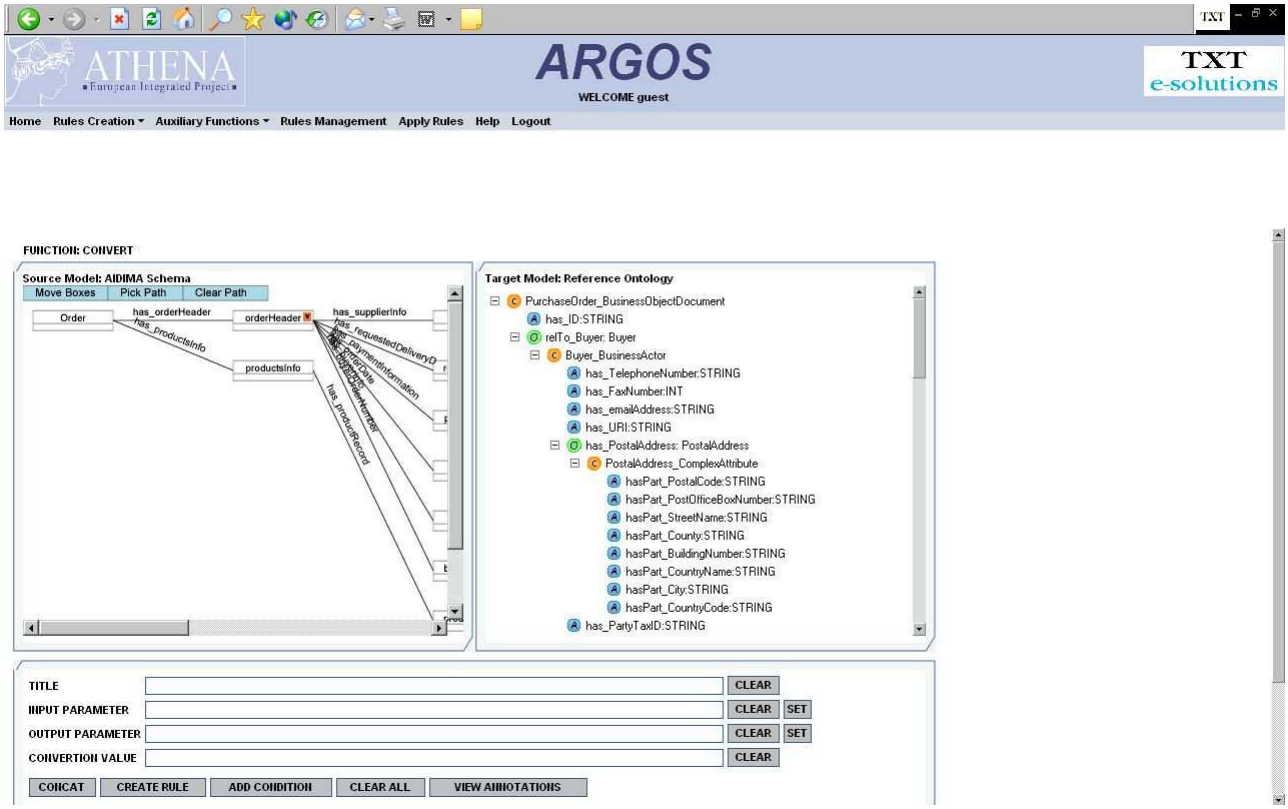

Figure 22 - Convert page

The Argos user will fill all required fields by selecting the source concept and the target concept as usual and by set the conversion value. Finally he clicks in "CREATE RULE" to create the conversion rule.

Also in this case the user can decide to set a condition on application of the defined rule by clicking on "Add Condition" button

Sum

The sum is the function that allows to sum the value of two or more concepts of the source model to the value of another concept on the target model.

The user can sum 2, 3, 4 or 5 source concepts by selecting from the menu "Sum 2", "Sum 3", "Sum 4", "Sum 5".

For instance, by clicking on the item "Sum 2", the following page will be shown:

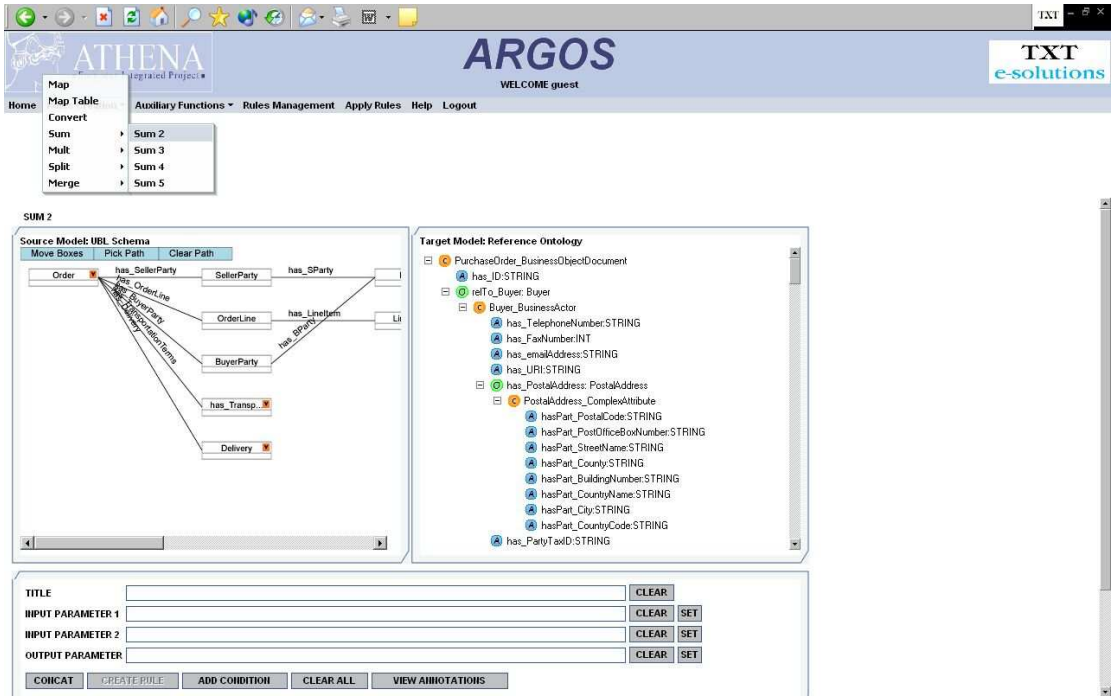

Figure 23 - Sum two concepts

After having selected the input source concepts and the output target concept, the user clicks on the "CREATE RULE" to finalize the rule creation procedure.

Also in this case the user can decide to set a condition on the application of the defined rule by clicking on "Add Condition" button

Mult

The mult is the function that allows to multiply the value of two or more concepts of the source model to the value of another concept on the target model.

The user can multiply 2, 3, 4 or 5 source concepts by selecting from the menu "Mult 2", "Mult 3", "Mult 4", "Mult 5".

For instance, by clicking on the item "Mult 2", the following page will be shown:

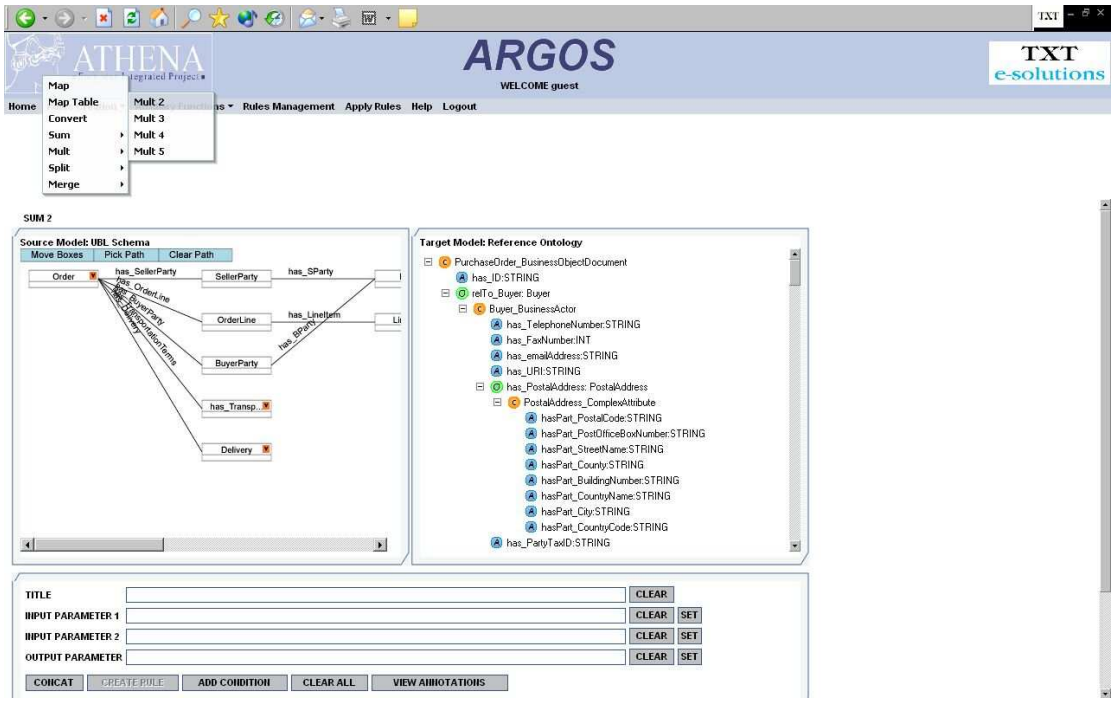

Figure 24 - Multiply two concepts

After having selected the input source concepts and the output target concept, the user clicks on the "CREATE RULE" to finalize the rule creation procedure.

Also in this case the user can decide to set a condition on the application of the defined rule by clicking on "Add Condition" button.

Split

The Split is the function that allows to split the value of a concept of the source model into the values of two or more concepts on the target model.

The user can split the source concept in 2, 3, 4 or 5 target concepts by selecting from the menu "Split 2", "Split 3", "Split 4", "Split 5".

For instance, by clicking on the item "Split 2", the following page will be shown:

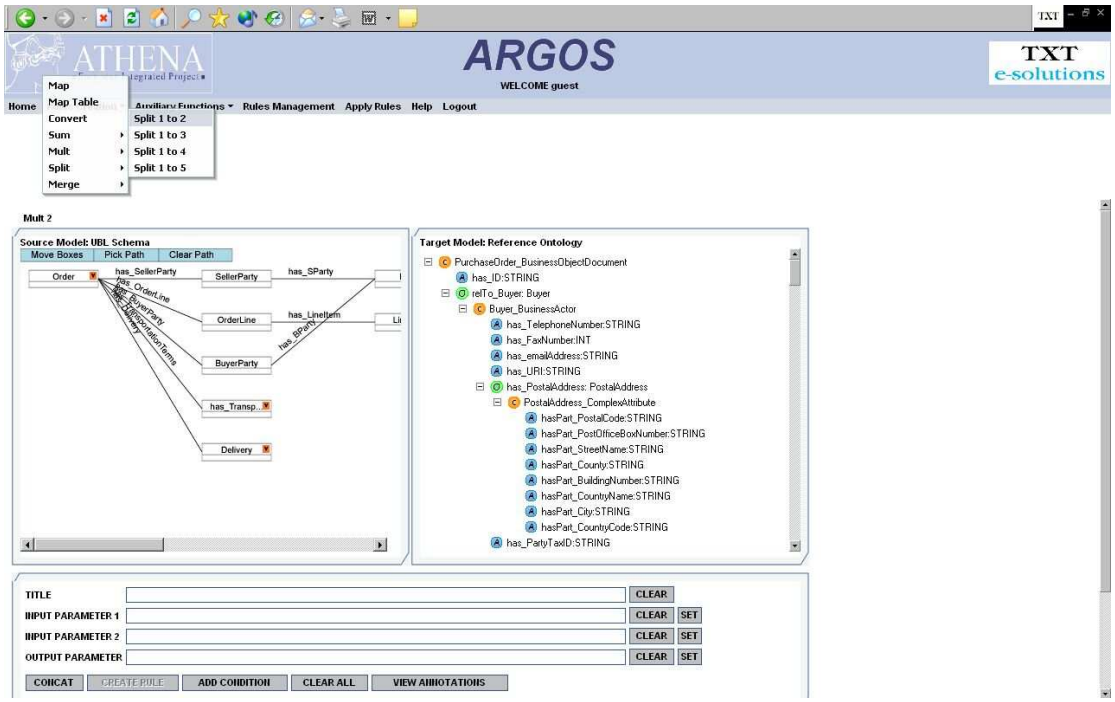

Figure 25 - Split one concept in two

After having selected the input source concept and the output target concepts, the user clicks on the "CREATE RULE" to finalize the rule creation procedure.

Also in this case the user can decide to set a condition on the application of the defined rule by clicking on "Add Condition" button

Merge

The merge is the function that allows to merge the values of two or more concepts of the source model to the value of another concept on the target model.

The user can merge 2, 3, 4 or 5 source concepts by selecting from the menu "Merge 2", "Merge 3", "Merge 4", "Merge 5".

For instance, by clicking on the item "Merge 2", the following page will be shown:

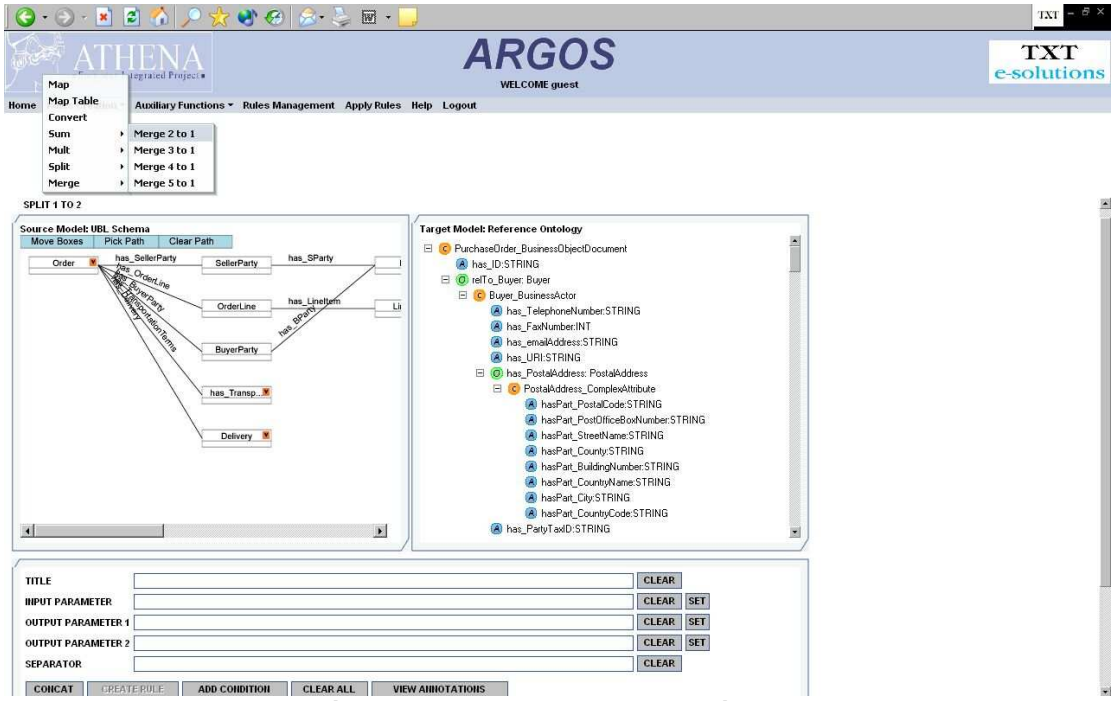

Figure 26 - Merge two concepts in one

After having selected the input source concept and the output target concepts, the user clicks on the "CREATE RULE" to finalize the rule creation procedure.

Also in this case the user can decide to set a condition on the application of the defined rule by clicking on "Add Condition" button

Auxiliary Functions

Auxiliary Functions allows for defining rules that do not require a correlation between concepts of source and target models.

Set Value

The set value is the function that allows to set the value of a concept of the target model to a fixed value. Each time this rule will be applied to instance of the target document, the fixed value will be assigned as value of selected target concept.

By clicking on the item "Set Value", the following page will be shown:

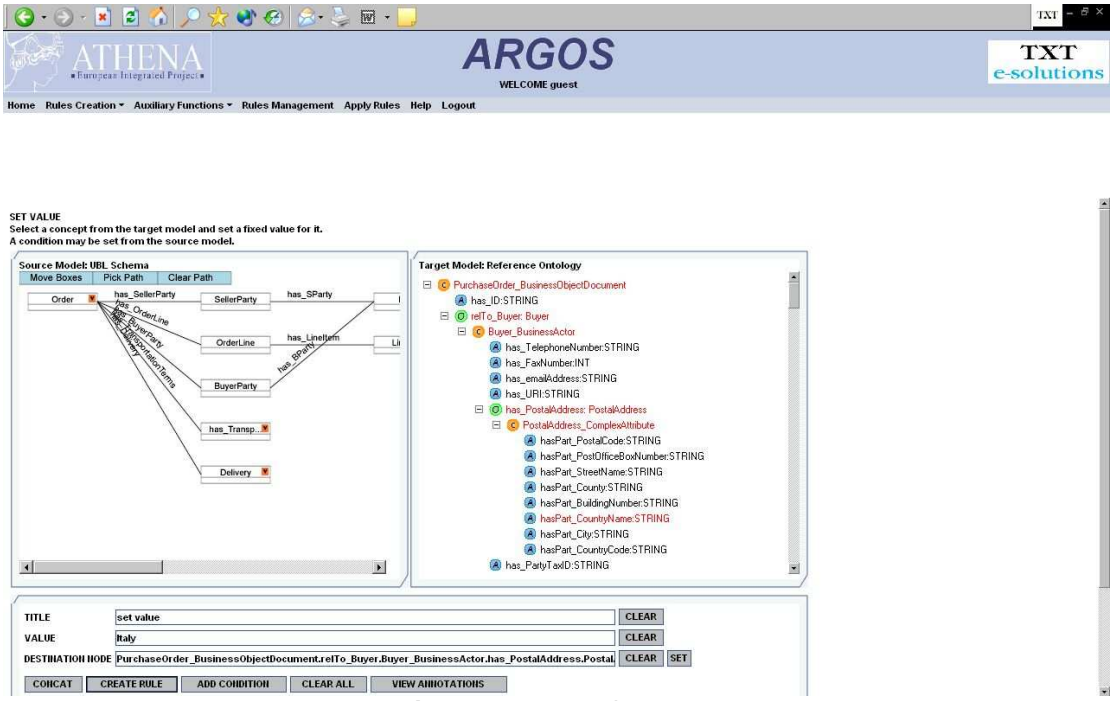

Figure 27 - SetValue page

After having selected the input target concept and the output fixed value, the user clicks on the "CREATE RULE" to finalize the rule creation procedure.

Also in this case the user can decide to set a condition on the application of the defined rule by clicking on "Add Condition" button

User Defined Rule

This page allows user to insert manually new rules.

By clicking on the item "User Defined Rule", the following page will be shown:

Figure 28 - User Defined Rule page

This form must be filled manually by the user. The first field is the Title, while the second field represents the preconditions of the rule under construction. Then the user has to select a functor that will be applied from the Functor combo box. The selected functor will be displayed inside the third field of the form that represents the postconditions of the rule.

When the user has filled the whole form, he can click on the "CREATE RULE" button and , if it is well formed, the rule will be stored in the system.

Note that Argos gives the possibility to an expert user to insert and register new functors inside the system. To do that, the user has to click on the "REGISTER FUNCTOR" button.

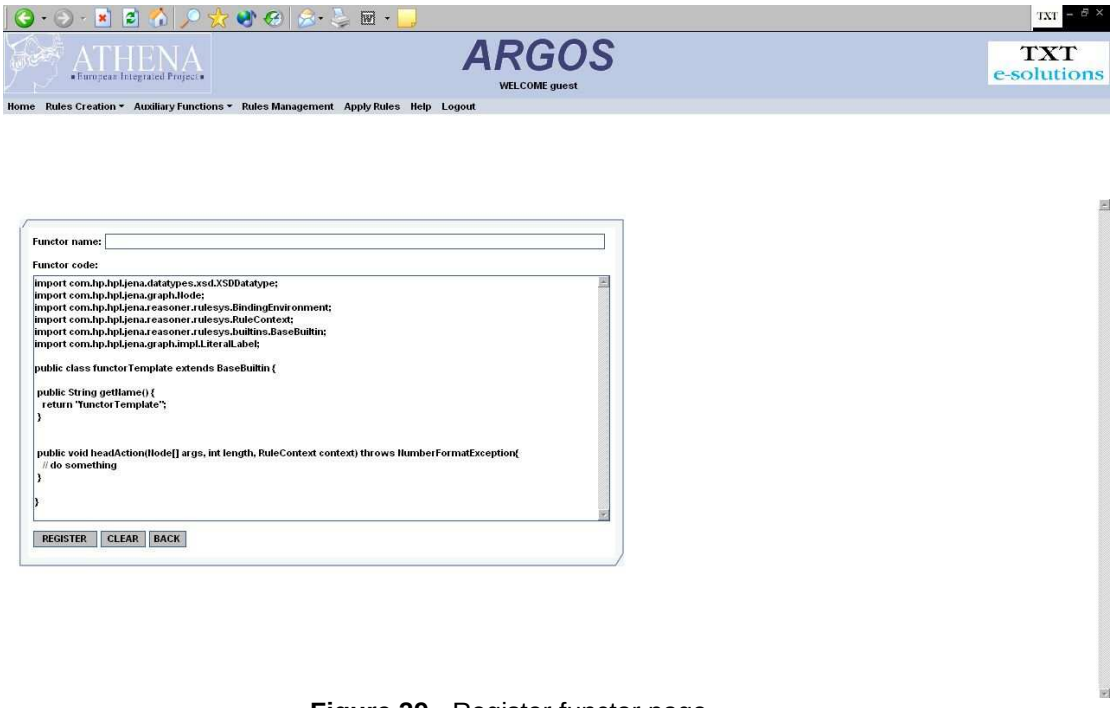

Figure 29 - Register functor page

This page contains a pre-inserted template of functor code. The user has only to complete this code, assign a name to the functor (that must be the same name of the class inside the code) and register it by clicking on the "REGISTER" button. A batch module will take the code, will create a new java file, will compile it and will register the new functor by inserting the new class file inside the Argos library. If this operation will be completed successfully, the user will find its own functor in the combo box of the User Defined Rule page.

Note that still from this page, a user can delete its own functors by clicking on the "DELETE FUNCTOR" button. The following page will be shown:

Figure 30 - Delete functor page

In this page the user can select what functor he needs to delete, check them and click on the "DELETE" button.

1.1 Rules Management

The rules management module allows user to see and manage its own rules.

By clicking on the "Rules Management" item, the following page will be shown:

Figure 31 - Rules Management Page

By clicking on the "View" button, the user will have a user friendly view of the selected rule.

To delete some rules, the user can check them and delete by clicking on "DELETE" button.

Apply Rules

This functionality allows the user to test the correctness of the rules created by himself, generated on actual RDF model.

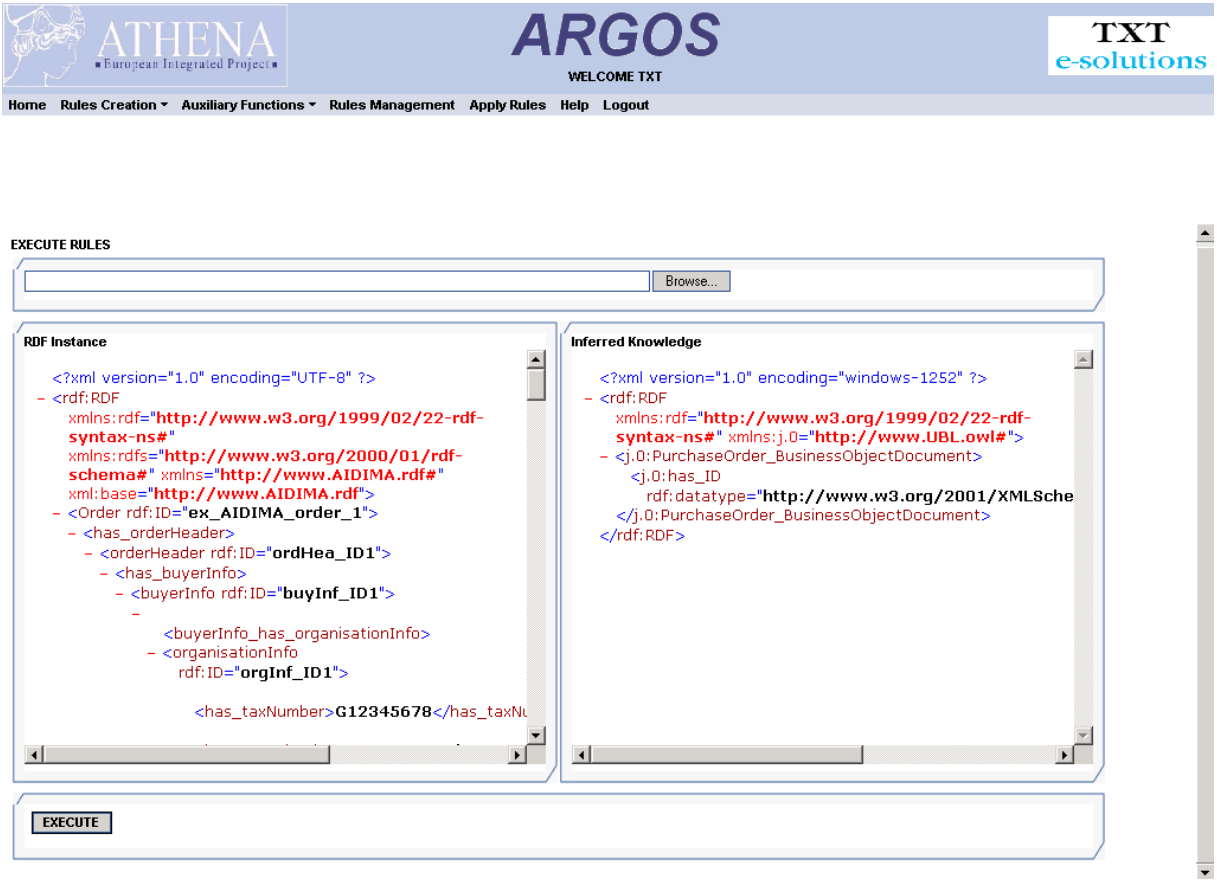

Figure 32 - Apply Rules page

User selects the resource (file RDF) on which test the rules; it is visualized on the left frame. The result (the inferred knowledge) is visualized on the right frame.

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