ONSET Documentation

April 23, 2012

ONSET, the foundational ontology selection tool, assists the domain ontology developer in selecting the most appropriate foundational ontology. The domain ontology developer provides the requirements/answers one or more questions, and ONSET computes the selection of the appropriate foundational ontology and explains why. The current version (v1.2) includes DOLCE, BFO, GFO and SUMO. To download ONSET and access supplementary information go to `http://www.meteck.org/files/onset/`. The ONSET application was developed by Zubeida Khan as part of her BSc(honours) thesis in Computer Science at the University of KwaZulu-Natal, supervised by Maria Keet. It was further refined afterward to include other foundational ontologies and more data.

Documentation Guide

There is no installation required for ONSET. Simply opening the file 'ONSETv1.2.jar' begins the program run. This brings you to the start screen. Additional questions are those that do relate to foundational ontologies but do not make a difference to the output of ONSET due to the implemented foundational ontologies at present. Scaling involves assigning a rating to each category, depending on how important a category is to your ontology. If you're unsure on what is most important/least important in your ontology, you may skip this step or assign equal scaling to all the categories.
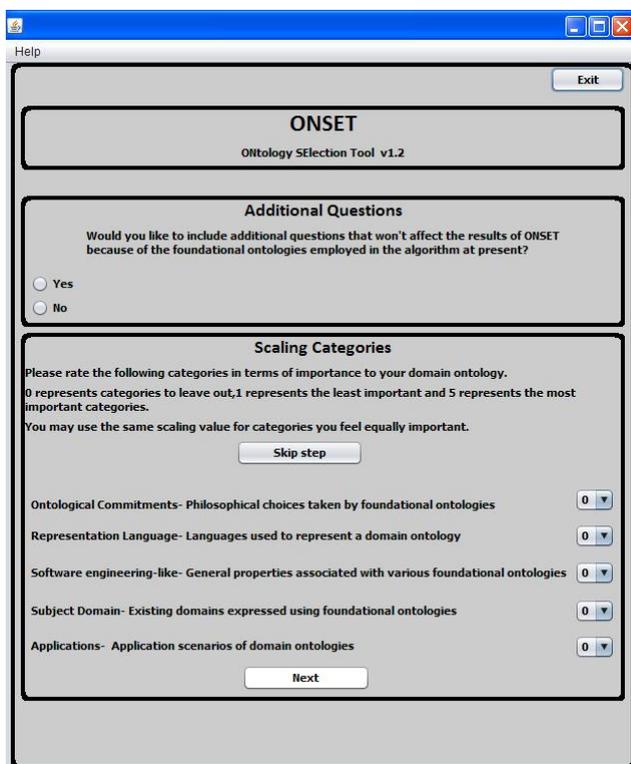
Figure 1: Start screen of ONSET

In the next screen, you are brought to a tabbed pane of categories. Your input is captured by

radio buttons and check boxes in some cases. At any stage, you are able to exit or go back to the start screen to restart.
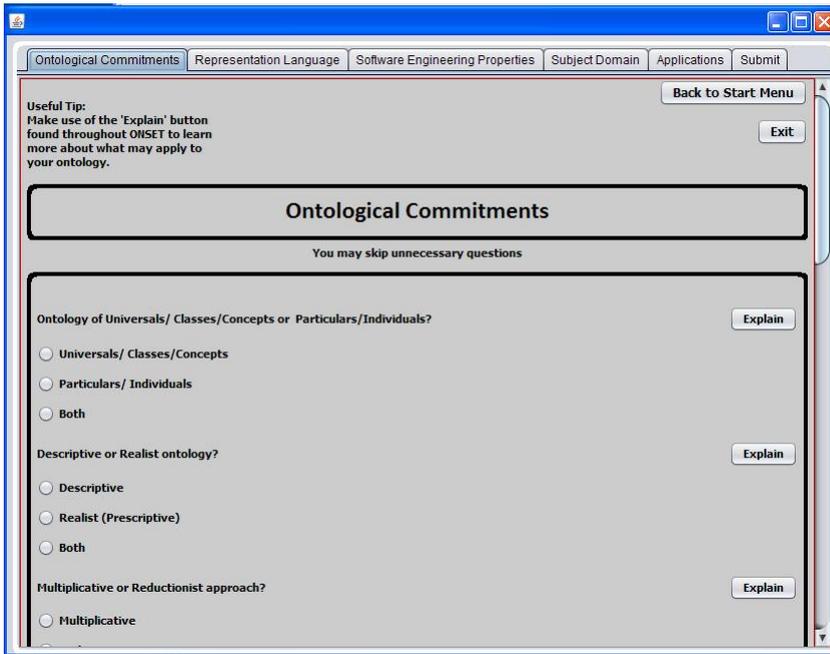
Figure 2: Mixed tab pane of ONSET

In order to assist you with unknown and complicated terms and concepts, 'Explain' buttons are found throughout ONSET. Clicking it opens up a small informative window.
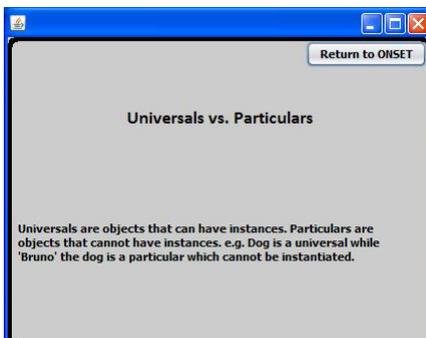
Figure 3: Explain button window of ONSET

Once you have provided all your inputs for a particular tab, click on the Submit button at the bottom of it and you are automatically taken to the next tab.
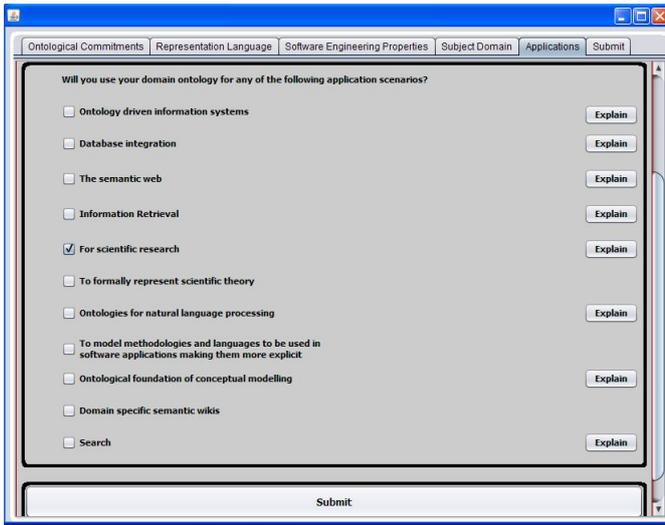
Figure 4: Tab submission of ONSET

Once you're in the Submit tab, click on the calculate button to allow ONSET to select an appropriate foundational ontology based on your requirements. A foundational ontology is selected. All results are displayed and grouped neatly. Reasons as to a particular foundational ontology is selected is provided.
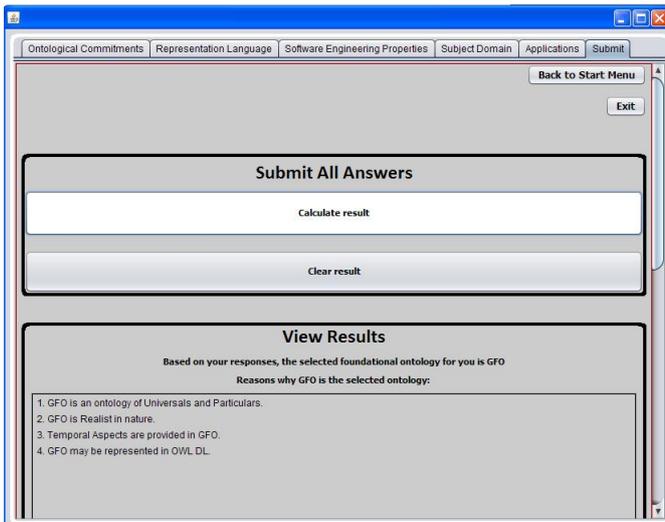
Figure 5: Output of ONSET

Also, conflicting results are provided. Conflicting results occur when a particular foundational ontology is selected but not all of your requirements are supported by it.

A list of subject domain ontologies that implement foundational ontologies for the subject domain you've chosen is provided.

If your criteria correspond equally to the foundational ontologies (a tie), you must choose the one that best fits your requirements or modify your inputs, where possible. In the example below, you may choose the foundational ontology, based on how you prefer temporality to be implemented.
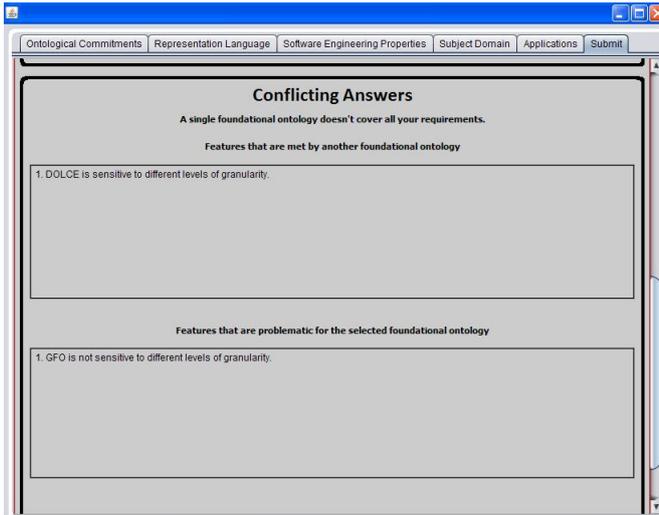
Figure 6: Conflicting results of ONSET
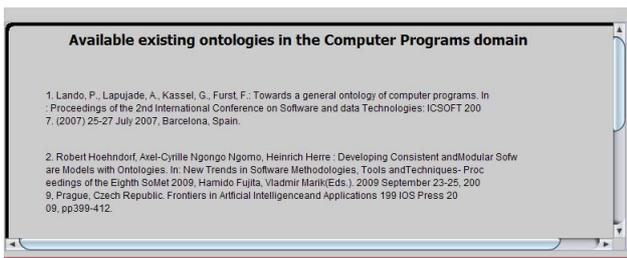
Figure 7: Subject domains of ONSET

Figure 8: A tie in ONSET