

# Discovery Demo

## INFRAWEBBS project

### What is this demo about?

This is a demonstration of how to find Semantic Web Services for a semantically specified user desire (goal). The demo performs discovery algorithms on the testbed of some WSMO goals and services. The [WSMO](#) (Web Service Modeling Ontology) effort is toward further standardization in the area of Semantic Web Service languages and toward a common architecture and platform for Semantic Web Services. [WSML](#) (Web Service Modeling Language) has been developed for use within WSMO. WSML is a language for the specification of ontologies and different aspects of Web services. In this demo all examples are specified in WSML:

- Ontologies define basic knowledge about dates, locations, etc. as well as application-specific knowledge, in our case concepts of traveling: flight booking, hotel room booking, car rental.
- Services describe what they can do for users (capability) and how they can be used (choreography) on the semantic level. In this demo the emphasis is on the capabilities part.
- Goals describe the users' desires in a semantic format.

The task of discovery is to find services capable to fulfill the user-given goal.

### How to use the demo?

On the starting page one may select a prepared goal, modify it, and send it to the discovery engine to receive matching semantic web service descriptions. First select a goal from the list below. The WSML description of the goal appears in the text area, where it can be edited. When the goal is ready, push one of the search buttons to start the discovery process. These buttons represent variations of the search algorithm.

The remaining buttons on the starting page let you explore available services and check the status of the engine.

The next page shows the results of the first, keyword-based step in discovery: services found using a special keyword matching technique in order to narrow down the list of candidate services. Here you may continue to the next step of discovery process.

The second step of discovery process performs logical matching of goals and web services. Logical expressions of the service capability are checked to have a solution for the logical expressions found in the goal. This final list contains matching services, which can be examined by clicking on the service name in the list.