

Semeval Task 2: Grammar Induction for  
Spoken Dialogue Systems  
Data and tools

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# 1 Data format

The data for each domain is released in a csv file. Train data is formatted one rule per line:

`<rule_name>,chunk_1,chunk_2,...`

The train files for the three somains/languages are in the data directory: **travel.en.train**, **travel.el.train**, **tourism.en.train**. In addition, for each domain/task the full set of rules mentioned but not used in the train set are given in the data directory too: **travel.en.all**, **travel.el.all**, **tourism.en.all**.

# 2 Baseline system

We release a baseline system, locate in the code directory. The three files that implement the system are: **libS.pl**, **01\_string\_similarities.pl**, **02\_class.pl**. To run the system with a test set you need to specify its name in **libS.pl** in line 22. Afterwards the baseline system is run using 2 commands:

```
perl 01_string_similarities.pl
perl 02_class.pl > result.csv
```

The output in **result.csv** uses the same format as the train file, each rule corresponds to one rule and then the chunks classified to this rule follow, divided by commas.

# 3 Evaluation

For each domain a number of rules are populated, plus the "rule" **JUNK**. The contents of **JUNK** are chunks that do not belong to the grammar. The test file will be given as a plain text file, with one chunk per line. It will be composed of chunks that correspond to rules in the train grammar, as well as "**JUNK**" chunks that do not correspond to any rule. Evaluation will be performed based on Precision, Recall and F-measure.

$$Precision_{rule} = \frac{\text{number of chunks correctly classified to the rule}}{\text{number of chunks classified to the rule}}$$

$$Recall_{rule} = \frac{\text{number of chunks correctly classified to the rule}}{\text{number of rule chunks in the test set}}$$

$$F - measure = \frac{2 * Precision * Recall}{Precision + Recall}$$

To compute the evaluation metrics for a **result.csv** given a groundtruth you need to run:

`perl class.pl groundtruth_file.csv result.csv`