Reviving Test by Generation

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What is Test by Generation?

- A Feature of the Matrix Customization page (https://matrix.ling.washington.edu/customize/)
- Allows you to test generating sentences using the grammar fragment
 being customized in the system/web page
 - Key Point: Quickly provides feedback about the range of strings the grammar can generate

Matrix customization and download page [documentation]

Version of Thu Jun 30 23:43:40 UTC 2022

- Ciausai Compiements
- Clausal Modifiers
- Lexicon
- Morphology
- Import Toolbox Lexicon
- ► Test Sentences
- ▶ Test by Generation Options

Archive type:

tar.gz .zip

Create Grammar Test by Generation

```
\leftarrow \rightarrow C \land
               matrix.ling.washington.edu/customize/matrix.cgi
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                                                                                                                                                          Other Bookmarks
                 print(HTML posttitle)
   1465
                 delphin dir = os.path.join(os.getcwd(), 'delphin')
   1466
                 sentences = generate.get sentences(grammar dir, delphin dir, session)
=> 1467
                 print(HTML sentencesprebody)
   1468
   1469
                 for i in range(len(sentences)):
sentences undefined, global generate = <module 'gmcs.generate' from '/home2/www-matrix/html/customize/gmcs/generate.py'>, generate.get_sentences = <function get_sentences>, grammar_dir =
'sessions/9105/eng', delphin_dir = '/home2/www-matrix/html/customize/delphin', session = '9105'
/home2/www-matrix/html/customize/generate.py in get_sentences(grammar_dir='sessions/9105/eng', delphin_dir='/home2/www-matrix/html/customize/delphin',
session='9105')
    400 # Wrap up all of the components involved in generation, and return the results
    401 def get sentences(grammar dir, delphin dir, session):
            (noun rels dets, det rels, language) = get n predications(grammar dir)
=> 402
    403
            (itvs, stvs) = get v predications(grammar dir, language)
            templates = get templates(grammar dir)
noun_rels_dets undefined, det_rels undefined, language undefined, global get_n_predications = <function get_n_predications>, grammar_dir = 'sessions/9105/eng'
/home2/www-matrix/html/customize/gmcs/generate.py in get n predications(grammar dir='sessions/9105/eng')
                      det list.add(pline[1].rstrip())
    186
    187
             noun rels dets = remove duplicates(noun rels dets)
=> 188
    189
            # print "noun rels dets: <<",noun rels dets,">><br />"
    190
noun_rels_dets = [['_dog_n_rel', 'obl'], ['_pronoun_n_rel', 'imp']], global remove_duplicates = <function remove_duplicates>
/home2/www-matrix/html/customize/gmcs/generate.py in remove_duplicates(list=[['_dog_n_rel', 'obl'], ['_pronoun_n_rel', 'imp']])
            while(list != []):
    141
    142
                 new list.append(list[0])
=> 143
                 list = list(filter((lambda x: x[0] != list[0][0]), list))
            return new list
    144
list = [[' dog n rel', 'obl'], [' pronoun n rel', 'imp']], builtin filter = <class 'filter'>, x undefined
TypeError: 'list' object is not callable
     args = ("'list' object is not callable".)
      with_traceback = <built-in method with_traceback of TypeError object>
```

Project Plan

- **Phase 1:** Get functionality back
- Phase 2: Add templates/generation options
- Phase 3: Documentation!

Status

- Almost \(\omega\)
- Brainstorming these today!
- No matter how far I get with this project I am committing to adding documentation

Phase 1 Detail

- 1. Resolve the python error
- 2. (optional?) Validate the grammar
- 3. Generate sentences
- 4. Switch from LKB to ACE
- 5. Display the results
- 6. (optional) Display user friendly error messages on failures

Generated Sentences

Click on a sentence to view its parse tree and the mrs associated to that parse. Capitalized lexical entries indicate that the lexical entry has undergone a spelling-changing lexical rule

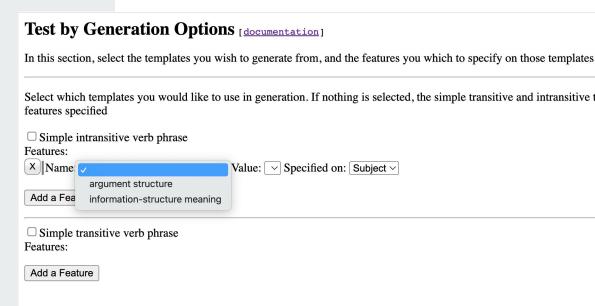
0

Back to form
Back to Matrix main page
To the LKB page

What was this page supposed to look like and were there any complaints about it I should know about?

Phase 2 Detail

- 1. Verify the Add feature options work to generate templates
- 2. Iteratively add more templates that may be of interest



Phase 3 Detail

 Update Documentation with current usage, any caveats, and any future developer work still needed

MatrixDoc_TestByGeneration

EmilyBender edited this page on Aug 29, 2012 · 1 revision

Documentation for the Grammar Matrix Customization Test By Generation Page

Introduction

The Test By Generation facility is partially described in Bender et al 2010.

Options

• [This documentation is under construction. When it is more complete, this section should describe the effects of the various options provided in this library in terms of the behavior of the grammar. It is also a good place for tips on how to get the most from the library.]

Upcoming Work

• [This documentation is under construction. When it is more complete, this section should describe any modifications to or enhancements of this library that are either in progress or planned.]

References

Bender, Emily M., Scott Drellishak, Antske Fokkens, Michael Wayne Goodman, Daniel P. Mills, Laurie Poulson, and Safiyyah Saleem. 2010. Grammar prototyping and testing with the LinGO Grammar Matrix customization system. In Proceedings of the ACL 2010 Software Demonstrations.

Questions?