```python
In [1]: from propbank import *
```

```python
In [2]: business_baseforms
```

```
Out[2]: ['advise',
         'employ',
         'hire',
         'make',
         'produce',
         'acquire',
         'purchase',
         'market',
         'sell',
         'sponsor',
         'issue']
```

```python
In [8]: baseforms = business_baseforms
        #baseforms = None
        instances_limit = 1000
        #instances_limit = None
```

```python
In [9]: i = get_instances(baseforms=baseforms, instances_limit=instances_limit)
```

```python
In [10]: print_instances(i[:10])
```

```
_____make_____
num:            0
fileid:         wsj_0003.mrg
sentnum:        0
wordnum:        9
roleset:        make.01
roleset make.01 (cache miss)
inflection:     i---a
  form:         i
  tense:        –
  aspect:       –
  person:       –
  voice:        a
tagger:         gold
_____sentence_____
A form of asbestos once used * * to make Kent cigarette filters has caused a high
percentage of cancer deaths among a group of workers exposed * to it more than 30 years ago
, researchers reported 0 *T*-1 .
_____predicate_____
wordnum:        9
height:         0
word:           make
(VB make)
_____ARG0_____
descr:          creator
loc:            7:0
arg:            *
(-NONE- *)
_____ARG1_____
descr:          creation
loc:            10:1
arg:            Kent cigarette filters
(NP (NNP Kent) (NN cigarette) (NNS filters))
_____tree_____
(S
  (S-TPC-1
    (NP-SBJ
```

```
        (NP (NP (DT A) (NN form)) (PP (IN of) (NP (NN asbestos))))
      (RRC
        (ADVP-TMP (RB once))
        (VP
          (VBN used)
          (NP (-NONE- *))
          (S-CLR
            (NP-SBJ (-NONE- *))
            (VP
              (TO to)
              (VP
                (VB make)
                (NP (NNP Kent) (NN cigarette) (NNS filters)))))))))
    (VP
      (VBZ has)
      (VP
        (VBN caused)
        (NP
          (NP (DT a) (JJ high) (NN percentage))
          (PP (IN of) (NP (NN cancer) (NNS deaths)))
          (PP-LOC
            (IN among)
            (NP
              (NP (DT a) (NN group))
              (PP
                (IN of)
                (NP
                  (NP (NNS workers))
                  (RRC
                    (VP
                      (VBN exposed)
                      (NP (-NONE- *))
                      (PP-CLR (TO to) (NP (PRP it)))
                      (ADVP-TMP
                        (NP
                          (QP (RBR more) (IN than) (CD 30))
                          (NNS years))
                        (IN ago)))))))))))
  (, ,)
  (NP-SBJ (NNS researchers))
  (VP (VBD reported) (SBAR (-NONE- 0) (S (-NONE- *T*-1))))
  (. .))
```

```
_____make_____
num:            1
fileid:         wsj_0003.mrg
sentnum:        2
wordnum:        12
roleset:        make.01
inflection:     vn-3a
  form:         v
  tense:        n
  aspect:       -
  person:       3
  voice:        a
tagger:         gold
_____sentence_____
Lorillard Inc. , the unit of New York-based Loews Corp. that *T*-2 makes Kent cigarettes ,
stopped using crocidolite in its Micronite cigarette filters in 1956 .
_____predicate_____
wordnum:        12
height:         0
word:           makes
(VBZ makes)
_____ARG1_____
```

```
descr:        creation
loc:          13:1
arg:          Kent cigarettes
(NP (NNP Kent) (NNS cigarettes))
_____ARG0_____
descr:        creator
loc:          3:1,5:1*10:1*11:0
arg:          the unit of New York-based Loews Corp. that *T*-2
(*CHAIN*
  (*SPLIT*
    (NP (DT the) (NN unit))
    (PP
      (IN of)
      (NP (ADJP (JJ New) (JJ York-based)) (NNP Loews) (NNP Corp.))))
  (WHNP-2 (WDT that))
  (-NONE- *T*-2))
_____tree_____
(S
  (NP-SBJ
    (NP (NNP Lorillard) (NNP Inc.))
    (, ,)
    (NP
      (NP (DT the) (NN unit))
      (PP
        (IN of)
        (NP (ADJP (JJ New) (JJ York-based)) (NNP Loews) (NNP Corp.)))
      (SBAR
        (WHNP-2 (WDT that))
        (S
          (NP-SBJ (-NONE- *T*-2))
          (VP (VBZ makes) (NP (NNP Kent) (NNS cigarettes))))))
    (, ,))
  (VP
    (VBD stopped)
    (VP
      (VBG using)
      (NP (NN crocidolite))
      (PP-LOC-CLR
        (IN in)
        (NP (PRP$ its) (NN Micronite) (NN cigarette) (NNS filters)))
      (PP-TMP (IN in) (NP (CD 1956)))))
  (. .))

_____make_____
num:          2
fileid:       wsj_0003.mrg
sentnum:      10
wordnum:      17
roleset:      make.01
inflection:   g----
  form:       g
  tense:      -
  aspect:     -
  person:     -
  voice:      -
tagger:       gold
_____sentence_____
The Lorillard spokeswoman said 0 asbestos was used *-1 in `` very modest amounts '' in *
making paper for the filters in the early 1950s and replaced *-1 with a different type of
filter in 1956 .
_____predicate_____
wordnum:      17
height:       0
word:         making
(VBG making)
```

```
_____ARG0_____
descr:        creator
loc:          16:1
arg:          *
(NP-SBJ (-NONE- *))
_____ARG1_____
descr:        creation
loc:          18:2
arg:          paper for the filters
(NP (NP (NN paper)) (PP (IN for) (NP (DT the) (NNS filters))))
_____tree_____
(S
  (NP-SBJ (DT The) (NNP Lorillard) (NN spokeswoman))
  (VP
    (VBD said)
    (SBAR
      (-NONE- 0)
      (S
        (NP-SBJ-1 (NN asbestos))
        (VP
          (VBD was)
          (VP
            (VP
              (VBN used)
              (NP (-NONE- *-1))
              (PP-CLR
                (IN in)
                (`` ``)
                (NP (ADJP (RB very) (JJ modest)) (NNS amounts))
                ('' ''))
              (PP-LOC
                (IN in)
                (S-NOM
                  (NP-SBJ (-NONE- *))
                  (VP
                    (VBG making)
                    (NP
                      (NP (NN paper))
                      (PP (IN for) (NP (DT the) (NNS filters)))))))
              (PP-TMP (IN in) (NP (DT the) (JJ early) (CD 1950s))))
            (CC and)
            (VP
              (VBN replaced)
              (NP (-NONE- *-1))
              (PP
                (IN with)
                (NP
                  (NP (DT a) (JJ different) (NN type))
                  (PP (IN of) (NP (NN filter)))))
              (PP-TMP (IN in) (NP (CD 1956)))))))))
  (. .))


_____sell_____
num:          3
fileid:       wsj_0003.mrg
sentnum:      11
wordnum:      13
roleset:      sell.01
roleset sell.01 (cache miss)
inflection:   pp--p
  form:       p
  tense:      p
  aspect:     -
  person:     -
  voice:      p
```

```
tagger:          gold
_____sentence_____
From 1953 to 1955 , 9.8 billion Kent cigarettes with the filters were sold *-3 , the
company said 0 *T*-1 .
_____predicate_____
wordnum:         13
height:          0
word:            sold
(VBN sold)
_____ARG1_____
descr:           Thing Sold
loc:             5:3*14:0
arg:             9.8 billion Kent cigarettes with the filters *-3
(*CHAIN*
  (NP-SBJ-3
    (NP (QP (CD 9.8) (CD billion)) (NNP Kent) (NNS cigarettes))
    (PP (IN with) (NP (DT the) (NNS filters))))
  (-NONE- *-3))
_____tree_____
(S
  (S-TPC-1
    (PP-TMP
      (PP-DIR (IN From) (NP (CD 1953)))
      (PP-DIR (TO to) (NP (CD 1955))))
    (, ,)
    (NP-SBJ-3
      (NP (QP (CD 9.8) (CD billion)) (NNP Kent) (NNS cigarettes))
      (PP (IN with) (NP (DT the) (NNS filters))))
    (VP (VBD were) (VP (VBN sold) (NP (-NONE- *-3)))))
  (, ,)
  (NP-SBJ (DT the) (NN company))
  (VP (VBD said) (SBAR (-NONE- 0) (S (-NONE- *T*-1))))
  (. .))


_____make_____
num:             4
fileid:          wsj_0003.mrg
sentnum:         17
wordnum:         22
roleset:         make.01
inflection:      i---a
  form:          i
  tense:         -
  aspect:        -
  person:        -
  voice:         a
tagger:          gold
_____sentence_____
The plant , which *T*-1 is owned *-4 by Hollingsworth & Vose Co. , was under contract
*ICH*-2 with Lorillard * to make the cigarette filters .
_____predicate_____
wordnum:         22
height:          0
word:            make
(VB make)
_____ARG0_____
descr:           creator
loc:             0:2*20:0
arg:             The plant , which *T*-1 is owned *-4 by Hollingsworth & Vose Co. , *
(*CHAIN*
  (NP-SBJ
    (NP (DT The) (NN plant))
    (, ,)
    (SBAR
      (WHNP-1 (WDT which))
```

```
          (S
            (NP-SBJ-4 (-NONE- *T*-1))
            (VP
              (VBZ is)
              (VP
                (VBN owned)
                (NP (-NONE- *-4))
                (PP
                  (IN by)
                  (NP-LGS
                    (NNP Hollingsworth)
                    (CC &)
                    (NNP Vose)
                    (NNP Co.)))))))
        (, ,))
      (-NONE- *))
_____ARG1_____
descr:          creation
loc:            23:1
arg:            the cigarette filters
(NP (DT the) (NN cigarette) (NNS filters))
_____tree_____
(S
  (NP-SBJ
    (NP (DT The) (NN plant))
    (, ,)
    (SBAR
      (WHNP-1 (WDT which))
      (S
        (NP-SBJ-4 (-NONE- *T*-1))
        (VP
          (VBZ is)
          (VP
            (VBN owned)
            (NP (-NONE- *-4))
            (PP
              (IN by)
              (NP-LGS
                (NNP Hollingsworth)
                (CC &)
                (NNP Vose)
                (NNP Co.)))))))
    (, ,))
  (VP
    (VBD was)
    (PP-LOC-PRD
      (IN under)
      (NP
        (NP (NN contract) (S (-NONE- *ICH*-2)))
        (PP (IN with) (NP (NN Lorillard)))
        (S-2
          (NP-SBJ (-NONE- *))
          (VP
            (TO to)
            (VP (VB make) (NP (DT the) (NN cigarette) (NNS filters))))))))
  (. .))

_____make_____
num:            5
fileid:         wsj_0003.mrg
sentnum:        23
wordnum:        8
roleset:        make.01
inflection:     vp--a
  form:         v
```

```
        tense:        p
        aspect:       -
        person:       -
        voice:        a
tagger:               gold
_____sentence_____
About 160 workers at a factory that *T*-8 made paper for the Kent filters were exposed *-7
to asbestos in the 1950s .
_____predicate_____
wordnum:              8
height:               0
word:                 made
(VBD made)
_____ARG0_____
descr:        creator
loc:          4:1*6:1*7:0
arg:          a factory that *T*-8
(*CHAIN* (NP (DT a) (NN factory)) (WHNP-8 (WDT that)) (-NONE- *T*-8))
_____ARG1_____
descr:        creation
loc:          9:2
arg:          paper for the Kent filters
(NP
  (NP (NN paper))
  (PP (IN for) (NP (DT the) (NNP Kent) (NNS filters))))
_____tree_____
(S
  (NP-SBJ-7
    (NP (QP (IN About) (CD 160)) (NNS workers))
    (PP-LOC
      (IN at)
      (NP
        (NP (DT a) (NN factory))
        (SBAR
          (WHNP-8 (WDT that))
          (S
            (NP-SBJ (-NONE- *T*-8))
            (VP
              (VBD made)
              (NP
                (NP (NN paper))
                (PP (IN for) (NP (DT the) (NNP Kent) (NNS filters)))))))))
  (VP
    (VBD were)
    (VP
      (VBN exposed)
      (NP (-NONE- *-7))
      (PP-DIR (TO to) (NP (NN asbestos)))
      (PP-TMP (IN in) (NP (DT the) (CD 1950s)))))
  (. .))


_____make_____
num:          6
fileid:       wsj_0003.mrg
sentnum:      25
wordnum:      33
roleset:      make.01
inflection:   i---a
  form:       i
  tense:      -
  aspect:     -
  person:     -
  voice:      a
tagger:       gold
_____sentence_____
```

```
Workers dumped large burlap sacks of the imported material into a huge bin , poured in
cotton and acetate fibers and mechanically mixed the dry fibers in a process used * * to
make filters .
_____predicate_____
wordnum:        33
height:         0
word:           make
(VB make)_____ARG0_____
descr:          creator
loc:            31:0
arg:            *
(-NONE- *)
_____ARG1_____
descr:          creation
loc:            34:1
arg:            filters
(NP (NNS filters))
_____tree_____
(S
  (NP-SBJ (NNS Workers))
  (VP
    (VP
      (VBD dumped)
      (NP
        (NP (JJ large) (NN burlap) (NNS sacks))
        (PP (IN of) (NP (DT the) (VBN imported) (NN material))))
      (PP-DIR (IN into) (NP (DT a) (JJ huge) (NN bin))))
    (, ,)
    (VP
      (VBD poured)
      (PRT (RP in))
      (NP (NN cotton) (CC and) (NN acetate) (NNS fibers)))
    (CC and)
    (VP
      (VP
        (ADVP-MNR (RB mechanically))
        (VBD mixed)
        (NP (DT the) (JJ dry) (NNS fibers))
        (PP-LOC
          (IN in)
          (NP
            (NP (DT a) (NN process))
            (RRC
              (VP
                (VBN used)
                (NP (-NONE- *))
                (S-CLR
                  (NP-SBJ (-NONE- *))
                  (VP (TO to) (VP (VB make) (NP (NNS filters)))))))))))))
  (. .))


_____sell_____
num:            7
fileid:         wsj_0004.mrg
sentnum:        8
wordnum:        6
roleset:        sell.01
inflection:     p---p
  form:         p
  tense:        -
  aspect:       -
  person:       -
  voice:        p
tagger:         gold
_____sentence_____
```

```
The yield on six-month Treasury bills sold * at Monday 's auction , for example , rose to
8.04 % from 7.90 % .
_____predicate_____
wordnum:        6
height:         0
word:           sold
(VBN sold)
_____ARG1_____
descr:          Thing Sold
loc:            3:1*7:0
arg:            six-month Treasury bills *
(*CHAIN* (NP (JJ six-month) (NNP Treasury) (NNS bills)) (-NONE- *))
_____ARGM-LOC_____
_____tree_____
(S
  (NP-SBJ
    (NP (DT The) (NN yield))
    (PP
      (IN on)
      (NP
        (NP (JJ six-month) (NNP Treasury) (NNS bills))
        (VP
          (VBN sold)
          (NP (-NONE- *))
          (PP-LOC
            (IN at)
            (NP (NP (NNP Monday) (POS 's)) (NN auction)))))))
  (, ,)
  (PP (IN for) (NP (NN example)))
  (, ,)
  (VP
    (VBD rose)
    (PP-DIR (TO to) (NP (CD 8.04) (NN %)))
    (PP-DIR (IN from) (NP (CD 7.90) (NN %))))
  (. .))


_____make_____
num:            8
fileid:         wsj_0007.mrg
sentnum:        2
wordnum:        10
roleset:        make.01
inflection:     vn-3a
  form:         v
  tense:        n
  aspect:       -
  person:       3
  voice:        a
tagger:         gold
_____sentence_____
Bailey Controls , based * in Wickliffe , Ohio , makes computerized industrial controls
systems .
_____predicate_____
wordnum:        10
height:         0
word:           makes
(VBZ makes)
_____ARG0_____
descr:          creator
loc:            0:2
arg:            Bailey Controls , based * in Wickliffe , Ohio ,
(NP-SBJ
  (NP (NNP Bailey) (NNP Controls))
  (, ,)
  (VP
```

```
      (VBN based)
      (NP (-NONE- *))
      (PP-LOC-CLR
        (IN in)
        (NP (NP (NNP Wickliffe)) (, ,) (NP (NNP Ohio)))))
    (, ,))
_____ARG1_____
descr:          creation
loc:            11:1
arg:            computerized industrial controls systems
(NP (JJ computerized) (JJ industrial) (NNS controls) (NNS systems))
_____tree_____
(S
  (NP-SBJ
    (NP (NNP Bailey) (NNP Controls))
    (, ,)
    (VP
      (VBN based)
      (NP (-NONE- *))
      (PP-LOC-CLR
        (IN in)
        (NP (NP (NNP Wickliffe)) (, ,) (NP (NNP Ohio)))))
    (, ,))
  (VP
    (VBZ makes)
    (NP
      (JJ computerized)
      (JJ industrial)
      (NNS controls)
      (NNS systems)))
  (. .))


_____employ_____
num:            9
fileid:         wsj_0007.mrg
sentnum:        3
wordnum:        1
roleset:        employ.01
roleset employ.01 (cache miss)
inflection:     vn-3a
  form:         v
  tense:        n
  aspect:       -
  person:       3
  voice:        a
tagger:         gold
_____sentence_____
It employs 2,700 people and has annual revenue of about $ 370 million *U* .
_____predicate_____
wordnum:        1
height:         0
word:           employs
(VBZ employs)
_____ARG0_____
descr:          employer
loc:            0:1
arg:            It
(NP-SBJ (PRP It))
_____ARG1_____
descr:          employee
loc:            2:1
arg:            2,700 people
(NP (CD 2,700) (NNS people))
_____tree_____
(S
```

```
              (NP-SBJ (PRP It))
              (VP
                (VP (VBZ employs) (NP (CD 2,700) (NNS people)))
                (CC and)
                (VP
                  (VBZ has)
                  (NP
                    (NP (JJ annual) (NN revenue))
                    (PP
                      (IN of)
                      (NP
                        (QP (IN about) ($ $) (CD 370) (CD million))
                        (-NONE- *U*))))))
              (. .))
```

In [ ]: