

# HORN MORPHO 2.0 Quick Reference

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## Installation

1. Uncompress the file that you downloaded. This will yield a directory (folder) called `HornMorpho-2.0`, which contains all of the files that you need to run HORN MORPHO.
2. Go to the `HornMorpho-2.0` directory (folder), and enter the following, making sure that you are running Python 3.0 or 3.1.

```
python setup.py install
```

## Use

### STARTING THE PROGRAM

Start up the Python interpreter, again making sure that you are running at least Python 3.0, and type the following to load the program.

```
import l3
```

### FUNCTIONS

**anal\_word**(*language*, *word*)

Options: `roman=False`, `root=True`, `gram=True`, `citation=True`, `raw=False`,  
`segment=False` [Oromo only]

```
>>> l3.anal_word('ti', 'ፍብ')
```

```
Word: ፍብ
```

```
>>> l3.anal_word('ti', 'ፎፕሰ')
```

```
?Word: ፎፕሰ
```

```
>>> l3.anal_word('am', 'የማያስፈልጋትስ')
```

```
Word: የማያስፈልጋትስ
```

```
POS: verb, root: <fl_g>, citation: አስፈለገ
```

```
subject: 3, sing, masc
```

```
object: 3, sing, fem
```

```

grammar: imperfective, causative, relative, negative
conjunctive suffix: s
>>> l3.anal_word('om', 'afeeramaniiru')
Word: afeeramaniiru
POS: verb, root: <afeer>, citation: afeeramuu
subject: 3, plur
derivation: passive
TAM: perfect
>>> l3.anal_word('ti', 'ብዘጋጥመና')
Word: ብዘጋጥመና
POS: verb, root: <gTm>, citation: አጋጠመ
subject: 3, sing, masc
object: 1, plur
grammar: imperfective, reciprocal, transitive, relative
preposition: bI
>>> l3.anal_word('am', 'አይደለችም')
Word: አይደለችም
POS: copula, root: <ne>
subj: 3, sing, fem
negative
>>> l3.anal_word('ti', 'ዘየብለይ')
Word: ዘየብለይ
POS: verb, root: <al_e>, citation: አሎ
subject: 3, sing, masc
object: 1, sing
grammar: present, relative, negative
>>> l3.anal_word('om', 'dubbanne')
Word: dubbanne
POS: verb, root: <dubbadh>, citation: dubbachuu
TAM: past, negative
POS: verb, root: <dubbadh>, citation: dubbachuu
subject: 1, plur
TAM: past
>>> l3.anal_word('am', 'lezemedocacnm', roman=True)
Word: lezemedocacnm
POS: noun, stem: zemed
possessor: 1, plur
grammar: plural
preposition: le, conjunctive suffix: m
>>> l3.anal_word('am', 'ቢያስጨንቁአቸው', root=False, gram=False)
Word: ቢያስጨንቁአቸው
POS: verb, citation: አስጨነቀ
>>> l3.anal_word('om', 'afeeramaniiru', segment=True)
Word: afeeramaniiru
POS: verb, segmentation: {afeer-am}-an-r-u
subject: 3, plur

```

```

    derivation: passive
    TAM: perfect

>>> l3.anal_word('am', 'ለዘመዶቻችንም', raw=True)
[('zemed', [-acc, cnj='m', der=[-ass], -dis, +plr, pos='n',
  poss=[+expl, +p1, -p2, +plr], pp='le', rl=[-acc, +p], v=None))]

anal_file(language, input_file, output_file)
  Options: root=True, gram=True, citation=True, raw=False

>>> l3.anal_file('am', 'l3/Data/Am/am.txt', 'l3/Data/Am/am_out.txt')
Analyzing words in l3/Data/Am/am.txt
Writing analysis to l3/Data/Am/am_out.txt

phon_word(language, word) [Amharic only]
  Options: gram=True

>>> l3.phon_word('am', "ደመታሉ")
yImetal_u yIm_et_al_u

>>> l3.phon_word('am', "ደመታሉ", gram=True)
-- yImetal_u
POS: verb, root: <mt'>
  subject: 3, plur
  grammar: imperfective, aux:alle
-- yIm_et_al_u
POS: verb, root: <mt'>
  subject: 3, plur
  grammar: imperfective, aux:alle, passive

phon_file(language, input_file, output_file) [Amharic only]
  Option: gram=True

>>> l3.phon_file('am', 'l3/Data/Am/am.txt', 'l3/Data/Am/am_phon.txt')
Analyzing words in l3/Data/Am/am.txt
Writing analysis to l3/Data/Am/am_phon.txt

gen(language, root/stem, [grammatical_features])
  Options: roman=False, guess=False [Amharic, Tigrinya only]

>>> l3.gen('am', "mWl'")
ጠላ

>>> l3.gen('am', "mWl'", roman=True)
mola

>>> l3.gen('om', 'sirb')
sirbe

>>> l3.gen('ti', "gWyy")
ጎየየ

>>> l3.gen('am', "mWl'", '[sb=[+p2,+fem],ob=[+plr,+l]]')
ጠላሽላቸው

```

```

>>> 13.gen('am', 'meng^st', '[+plr,+def]')
መንግሥታቱ
>>> 13.gen('am', 'sdb', '[pos=n,v=agt,vc=cs,as=rc]')
አሳዳቢ
>>> 13.gen('am', 'brkt', '[pos=n,v=ins,pp=ke,cnj=m,+def]')
ከመበርከቻውም
>>> 13.gen('am', 'ne', '[+neg, sb=[+pl,+plr]]')
አይደለም
>>> 13.gen('am', 'kongo', '[pp=be]')
This word can't be generated!
>>> 13.gen('am', 'kongo', '[pp=be]', guess=True)
በኮንጎ
>>> 13.gen('am', 'wddr', '[+gen, poss=[+pl,+plr]]')
This word can't be generated!
>>> 13.gen('am', 'wdd_r', '[+gen, poss=[+pl,+plr]]')
የውድድራችን
>>> 13.gen('om', 'sirb', '[sb=[+fem],tm=prf]')
sirbiteerti
>>> 13.gen('om', 'barbaad', '[+inf,cnj=f]')
barbaaduuf
>>> 13.gen('om', 'sob', '[der=[+autoben],sb=[+p2],+neg,tm=prs]')
sobattu
>>> 13.gen('ti', 'HSb', '[sb=[+p2,+fem],ob=[+plr]]')
ሐጸብከዮም
>>> 13.gen('ti', 'n|qTqT', '[vc=ps,tm=imf,sb=[+pl,+plr]]')
ንንቅጥቀጥ
>>> 13.gen('ti', 'gdf', '[tm=j_i,+neg,sb=[+p2],ob=[+plr],vc=ps,as=rc]')
አይትጋደፎም

```