

# PocketSphinx (and Flite)

- **Web site** : <http://cmusphinx.sourceforge.net>

PocketSphinx is one of Carnegie Mellon University's open source large vocabulary, speaker-independent continuous speech recognition engine. CMU Pocketsphinx is the lightweight version of Sphinx-4 the main open source ASR system used in ILA and is optimized for mobile and low-performance hardware like the Raspberry Pi or Android.

## List of requested packages:

- Sphinx Base V0.4.99 : sphinbase-0.4.99-latest.tar.gz → 5prealpha
- Pocket Sphinx : pocketsphinx-0.5.99-latest.tar.gz → 5prealpha
- uniMRCP V1.3.0 : unimrcp-1.3.0.tar.gz
- uniMRCP deps V1.3.0 : unimrcp-deps-1.3.0.tar.gz
- Asterisk 11 : asterisk-11-current.tar.gz
- Asterisk uniMRCP V1.3.1 : asterisk-unimrcp-1.3.1.tar.gz
- Flite V2.0.0 : flite-2.0.0-release.tar

## Build the uniMRCP with PocketSphinx and Flite:

Follow the uniMRCP documented steps : <https://code.google.com/p/unimrcp/wiki/PocketSphinxPlugin>

- On Debian add: python, python-dev, swig.
- Compile SphinxBase (configure + make)
- Compile PocketSphinx (configure + make)
- Compile Flite (configure CFLAGS="-fPIC" + make)
- Compile unimrcp-deps if not already done (script build-dep-libs.sh)
- Patch the uniMRCP with the files (in patches/asterisk-unimrcp CVS module)
  - unimrcp/configure.ac
  - unimrcp/plugins/Makefile.am
  - unimrcp/plugins/mrcp-pocketsphinx (directory)
  - unimrcp/plugins/mrcp-flite (directory)
  - unimrcp/build/acmacros/\*.m4
- Change directory to unimrcp, and execute the bootstrap
- Compile mrcp-pocketsphinx with :
  - ./configure --enable-pocketsphinx-plugin --with-pocketsphinx=/datas/voicebrowser/pocketsphinx-5prealpha --with-sphinxbase=/datas/voicebrowser/sphinxbase-5prealpha
- Compile mrcp-flite with :
  - ./configure --enable-flite-plugin --with-flite=/datas/voicebrowser/flite-2.0.0-release CFLAGS="-fPIC"

## Installation and configuration:

Over the uniMRCP standard installation, create those directories if necessary in /usr/local/unimrcp

- /bin : copy the binaries unimrcpserver and unimrcpclient from unimrcp-x.x.x/platforms/\*.
- /plugin : copy the libraries generated from unimrcp-x.x.x/plugins/\*/.libs/\*/.so to this directory.
- /conf : add the pocketsphinx.xml from mrcp-pocketsphinx/conf and unimrcpserver.xml configuration files (from patches/asterisk-unimrcp CVS module).

- /var : create only.
- /data : Copy the models and the dictionaires.

### UniMRCP Server executable help line:

```
root@borja:~# /usr/local/unimrcp/bin/unimrcpserver --help

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```

#### Usage:

```
unimrcpserver [options]
```

#### Available options:

- r [--root-dir] path : Set the path to the project root directory.
- c [--dir-layout] path : Set the path to the dir layout config file.  
(takes the precedence over --root-dir option)
- l [--log-prio] priority : Set the log priority.  
(0-emergency, ..., 7-debug)
- o [--log-output] mode : Set the log output mode.  
(0-none, 1-console only, 2-file only, 3-both)
- d [--daemon] : Run as a daemon.
- v [--version] : Show the version.
- h [--help] : Show the help.

### Start the uniMRCP server:

For debugging :

```
/usr/local/unimrcp/bin/unimrcpserver -r /usr/local/unimrcp/
```

Run as a daemon:

```
/usr/local/unimrcp/bin/unimrcpserver -r /usr/local/unimrcp/ -d
```

From:

<https://wiki.voximal.com/> - **Voximal documentation**

Permanent link:

<https://wiki.voximal.com/doku.php?id=community:pocketsphinx>

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