```
fi
Directory: intelora-core/intelora.sh
                                                                          }
#!/usr/bin/env bash
                                                                          function restart-intelora {
SOURCE="${BASH SOURCE[0]}"
                                                                            if screen -list | grep -q "quiet";
while [ -h "$SOURCE" ]; do
DIR="$( cd -P "$( dirname "$SOURCE" )" && pwd )"
                                                                             $0 stop
SOURCE="$(readlink "$SOURCE")"
                                                                             sleep 1
[[$SOURCE!=/*]] && SOURCE="$DIR/$SOURCE"
                                                                             $0 start
done
                                                                            elif screen -list | grep -q "cli" &&! screen -list | grep -q
DIR="$( cd -P "$( dirname "$SOURCE" )" && pwd )"
                                                                           "quiet";
SCRIPTS="$DIR/scripts"
                                                                             $0 stop
function usage {
                                                                             sleep 1
echo
                                                                             $0 start -c
echo "Quickly start, stop or restart Intelora's esential
                                                                            elif screen -list | grep -q "voice" &&! screen -list | grep -q
services in detached screens"
                                                                           "quiet";
echo
                                                                            then
echo "usage: $0 [-h] (start [-v|-c]|stop|restart)"
                                                                             $0 stop
echo "
          -h
                    this help message"
                                                                             sleep 1
echo " start
                     starts intelora-service, intelora-skills,
                                                                             $0 start -v
intelora-voice and intelora-cli in quiet mode'
                                                                            else
          start -v
                      starts intelora-service, intelora-skills
                                                                             echo "An error occurred"
and intelora-voice"
                                                                            fi
echo " start -c
                      starts intelora-service, intelora-skills
and intelora-cli"
                      stops intelora-service, intelora-skills
echo "
          stop
                                                                          set -e
and intelora-voice"
echo "
                      restarts intelora-service, intelora-skills
         restart
                                                                          if [[ -z "$1" || "$1" == "-h" ]]
and intelora-voice"
                                                                          then
echo
                                                                           usage
echo "screen tips:"
                                                                           exit 1
echo "
              run 'screen -list' to see all running screens"
                                                                          elif [[ "$1" == "start" && -z "$2" ]]
echo "
              run 'screen -r <screen-name>' (e.g. 'screen -r
                                                                          then
intelora-service') to reatach a screen"
                                                                           start-intelora service
 echo "
              press ctrl + a, ctrl + d to detace the screen
                                                                           start-intelora skills
again"
                                                                           start-intelora voice
echo "
              See the screen man page for more details"
                                                                           start-intelora cli --quiet
echo
                                                                           exit 0
                                                                          elif [[ "$1" == "start" && "$2" == "-v" ]]
                                                                          then
#mkdir -p $SCRIPTS/logs
                                                                           start-intelora service
mkdir -p $DIR/logs
                                                                           start-intelora skills
                                                                           start-intelora voice
function verify-start {
                                                                           exit 0
  if! screen -list | grep -q "$1";
                                                                          elif [[ "$1" == "start" && "$2" == "-c" ]]
  then
                                                                          then
   echo "$1 failed to start. The log is below:"
                                                                           start-intelora service
   echo
                                                                           start-intelora skills
   tail $DIR/logs/$1.log
                                                                           start-intelora cli
  exit 1
                                                                           exit 0
                                                                          elif [[ "$1" == "stop" && -z "$2" ]]
                                                                          then
                                                                           stop-intelora service
function start-intelora {
                                                                           stop-intelora skills
screen -mdS intelora-$1$2 -c $SCRIPTS/intelora-$1.screen
                                                                           stop-intelora voice
$DIR/scripts/start.sh $1 $2
                                                                           stop-intelora cli
sleep 1
                                                                           exit 0
verify-start intelora-$1$2
                                                                          elif [[ "$1" == "restart" && -z "$2" ]]
echo "Intelora $1$2 started"
                                                                          then
                                                                           restart-intelora
                                                                           exit 0
function stop-intelora {
                                                                          else
  if screen -list | grep -q "$1";
                                                                           usage
                                                                           exit 1
   screen -XS intelora-$1 quit
                                                                          fi
   echo "Intelora $1 stopped"
```

Directory: inteloracore/build/build_host_setup_arch.sh

```
#!/usr/bin/env bash
sudo pacman -S \
  git \
  python2 \
  python2-pip \
  python2-setuptools \
  python2-virtualenv \
  python2-gobject \
  python-virtualenvwrapper \
  libtool \
  libffi \
  openssl \
  autoconf \
  bison \
  swig \
  glib2 \
  s3cmd \
  portaudio \
  mpg123 \
  screen \
  flac \
  curl
```

upgrade virtualenv to latest from pypi sudo pip2 install --upgrade virtualenv

Directory: inteloracore/build/build_host_setup_debian.sh

```
#!/usr/bin/env bash
sudo apt-get install -y \
  git \
  python \
  python-dev \
  python-setuptools \
  python-virtualenv \
  python-gobject-dev \
  virtualenvwrapper \
  libtool \
  libffi-dev \
  libssl-dev \
  autoconf \
  bison \
  swig \
  libglib2.0-dev \
  s3cmd \
  portaudio19-dev \
  mpg123 \
  screen \
  flac \
```

Directory: inteloracore/build/build_host_setup_fedora.sh

#!/usr/bin/env bash

curl

```
http://download1.rpmfusion.org/free/fedora/rpmfusion-
free-release-23.noarch.rpm
sudo dnf install -y \
  git \
  python \
  python-devel \
  python-pip \
  python-setuptools \
  python-virtualenv \
  pygobject2-devel \
  python-virtualenvwrapper \
  libtool \
  libffi-devel \
  openssl-devel \
  autoconf \
  bison \
  swig \
  glib2-devel \
  s3cmd \
  portaudio-devel \
  mpg123 \
  screen \
# upgrade virtualenv to latest from pypi
sudo pip install --upgrade virtualenv
```

sudo rpm -Uvh

Directory: inteloracore/doc/generate_sdk_docs.py

```
import os
import pdoc
__author__ = 'seanfitz'
DOCS_NAME = "mycroft-skills-sdk"
DOC_OUTPUT_DIR = "build/doc/%s/html" % DOCS_NAME
documented_sdk_modules = [
  "mycroft.configuration",
  "mycroft.dialog",
  "mycroft.filesystem",
  "mycroft.session",
  "mycroft.util",
  "mycroft.util.log"
def module_to_docpath(module_name):
  module source dir = module name.replace(".", "/")
  module_doc_dir = os.path.join(DOC_OUTPUT_DIR,
module_source_dir)
  base module name =
os.path.basename(module_doc_dir)
  if not os.path.isdir(module_source_dir):
    d = os.path.dirname(module doc dir)
      os.makedirs(d)
    except OSError:
      pass
    return os.path.join(d, base_module_name + '.m.html')
```

```
67, in main
      os.makedirs(module_doc_dir)
                                                                        event thread.exit()
    except OSError:
                                                                     AttributeError: 'Thread' object has no attribute 'exit'
                                                                      Starting cli --quiet
      pass
    return os.path.join(module_doc_dir, 'index.html')
                                                                     2016-12-24 11:40:18,081 - mycroft.configuration - DEBUG -
                                                                     Configuration
                                                                     '/home/paul/Irene/mycroft/configuration/mycroft.conf'
def main():
                                                                      loaded
  for m in documented_sdk_modules:
                                                                     2016-12-24 11:40:18,082 - mycroft.configuration - DEBUG -
    html = pdoc.html(m, allsubmodules=True)
                                                                     Configuration '/etc/mycroft/mycroft.conf' not found
    with open(module_to_docpath(m), 'w') as f:
                                                                     2016-12-24 11:40:18,082 - mycroft.configuration - DEBUG -
      f.write(html)
                                                                     Configuration '/home/paul/.mycroft/mycroft.conf' not
  import mycroft
                                                                     found
  mycroft.__all__ = [m[8:] for m in
                                                                     2016-12-24 11:40:18,405 -
documented_sdk_modules]
                                                                     requests.packages.urllib3.connectionpool - INFO - Starting
  root_module = pdoc.Module(mycroft)
                                                                     new HTTPS connection (1): api.mycroft.ai
  html = root_module.html(external_links=False,
                                                                      2016-12-24 11:40:19,728 -
link_prefix=", source=True)
                                                                      requests.packages.urllib3.connectionpool - DEBUG - "GET
  with open(module_to_docpath("mycroft"), 'w') as f:
                                                                     /v1/device/c14b1936-4458-4859-9cab-
    f.write(html)
                                                                     ebb56da21994/setting HTTP/1.1" 200 2887
                                                                       Carnegie Mellon University, Copyright (c) 1999-2011, all
                                                                      rights reserved
if __name__ == "__main__":
                                                                       version: mimic-2.0.0-release Dec 2014 (http://cmuflite.org)
  main()
                                                                     2016-12-24 11:40:20,016 - mycroft.messagebus.client.ws -
                                                                     INFO - Connected
                                                                     what imt e
                                                                                    tell me about my chemical romance
Directory: intelora-core/logs/intelora-cli.log
                                                                     Input:
                                                                      ^C2016-12-24 11:40:47,760 - CLIClient - ERROR -
Starting cli --quiet
                                                                     Traceback (most recent call last):
2016-12-24 11:38:29,119 - mycroft.configuration - DEBUG -
                                                                       File "/home/paul/Irene/mycroft/client/text/main.py", line
Configuration
                                                                     61, in main
'/home/paul/Irene/mycroft/configuration/mycroft.conf'
                                                                        line = sys.stdin.readline()
loaded
                                                                      KeyboardInterrupt
2016-12-24 11:38:29,126 - mycroft.configuration - DEBUG -
                                                                     Traceback (most recent call last):
Configuration '/etc/mycroft/mycroft.conf' not found
                                                                       File "/home/paul/Irene/mycroft/client/text/main.py", line
```

found 2016-12-24 11:38:29,467 -

requests.packages.urllib3.connectionpool - INFO - Starting new HTTPS connection (1): api.mycroft.ai

2016-12-24 11:38:29,127 - mycroft.configuration - DEBUG -

Configuration '/home/paul/.mycroft/mycroft.conf' not

2016-12-24 11:38:30,818 -

requests.packages.urllib3.connectionpool - DEBUG - "GET /v1/device/c14b1936-4458-4859-9cab-

ebb56da21994/setting HTTP/1.1" 200 2887

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version: mimic-2.0.0-release Dec 2014 (http://cmuflite.org) Input:

2016-12-24 11:38:31,055 - mycroft.messagebus.client.ws -

INFO - Connected what time s

wiiat tiii

else:

Input:

^C2016-12-24 11:38:46,711 - CLIClient - ERROR -

Traceback (most recent call last):

File "/home/paul/Irene/mycroft/client/text/main.py", line 61, in main

line = sys.stdin.readline()

KeyboardInterrupt

Traceback (most recent call last):

File "/home/paul/Irene/mycroft/client/text/main.py", line 72, in <module>

main()

Directory: intelora-core/logs/inteloraservice.log

AttributeError: 'Thread' object has no attribute 'exit'

Starting service

72, in <module>

main()

67, in main

2016-12-24 11:38:26,417 -

event thread.exit()

 $requests.packages.urllib3.connectionpool - INFO - Starting \\ new HTTPS connection (1): api.mycroft.ai$

File "/home/paul/Irene/mycroft/client/text/main.py", line

File "/home/paul/Irene/mycroft/client/text/main.py", line

/home/paul/Irene/init/start.sh: line 26: 28965 Terminated PYTHONPATH=\${TOP} python \${SCRIPT} \$@

Starting service

2016-12-24 11:40:15,424 -

 $requests.packages.urllib3.connectionpool - INFO - Starting \\ new HTTPS connection (1): api.mycroft.ai$

/home/paul/Irene/init/start.sh: line 26: 29461 Terminated PYTHONPATH=\${TOP} python \${SCRIPT} \$@

Directory: intelora-core/logs/intelora-skills.log

Starting skills

2016-12-24 11:38:26,908 - mycroft.configuration - DEBUG - Configuration

```
2016-12-24 11:38:32,016 - Skills - DEBUG - {"type":
'/home/paul/Irene/mycroft/configuration/mycroft.conf'
loaded
                                                                           "register_vocab", "data": {"start": "off", "end":
2016-12-24 11:38:26,909 - mycroft.configuration - DEBUG -
                                                                            "AlarmSkillStopVerb"}, "context": null}
                                                                           2016-12-24 11:38:32,023 - Skills - DEBUG - {"type":
Configuration '/etc/mycroft/mycroft.conf' not found
2016-12-24 11:38:26,910 - mycroft.configuration - DEBUG -
                                                                            "register_vocab", "data": {"start": "end", "end":
Configuration '/home/paul/.mycroft/mycroft.conf' not
                                                                            "AlarmSkillStopVerb"}, "context": null}
                                                                           2016-12-24 11:38:32,025 - Skills - DEBUG - {"type":
found
2016-12-24 11:38:27,204 -
                                                                           "register vocab", "data": {"start": "stop", "end":
                                                                           "AlarmSkillStopVerb"}, "context": null}
requests.packages.urllib3.connectionpool - INFO - Starting
new HTTPS connection (1): api.mycroft.ai
                                                                           2016-12-24 11:38:32,034 - Skills - DEBUG - {"type":
2016-12-24 11:38:28,495 -
                                                                            "register_vocab", "data": {"start": "erase", "end":
requests.packages.urllib3.connectionpool - DEBUG - "GET
                                                                            "AlarmSkillDeleteVerb"}, "context": null}
/v1/device/c14b1936-4458-4859-9cab-
                                                                           2016-12-24 11:38:32,040 - Skills - DEBUG - {"type":
                                                                            "register_vocab", "data": {"start": "cancel", "end":
ebb56da21994/setting HTTP/1.1" 200 2887
2016-12-24 11:38:28,697 - mycroft.messagebus.client.ws -
                                                                            "AlarmSkillDeleteVerb"}, "context": null}
INFO - Connected
                                                                           2016-12-24 11:38:32,047 - Skills - DEBUG - {"type":
                                                                            "register_vocab", "data": {"start": "delete", "end":
** (process:28980): [1;33mWARNING[0m **: Trying to
                                                                            "AlarmSkillDeleteVerb"}, "context": null}
                                                                           2016-12-24 11:38:32,055 - Skills - DEBUG - {"type":
register gtype 'GMountMountFlags' as enum when in fact it
is of type 'GFlags'
                                                                            "register_vocab", "data": {"start": "remove", "end":
                                                                           "AlarmSkillDeleteVerb"}, "context": null}
** (process:28980): [1;33mWARNING[0m **: Trying to
                                                                           2016-12-24 11:38:32,061 - Skills - DEBUG - {"type":
register gtype 'GDriveStartFlags' as enum when in fact it is of
                                                                            "register_vocab", "data": {"start": "timer", "end":
type 'GFlags'
                                                                            "AlarmSkillKeyword"}, "context": null}
                                                                            2016-12-24 11:38:32,067 - Skills - DEBUG - {"type":
                                                                            "register_vocab", "data": {"start": "timers", "end":
** (process:28980): [1;33mWARNING[0m **: Trying to
register gtype 'GSocketMsgFlags' as enum when in fact it is
                                                                            "AlarmSkillKeyword"}, "context": null}
of type 'GFlags'
                                                                           2016-12-24 11:38:32,076 - Skills - DEBUG - {"type":
                                                                           "register_vocab", "data": {"start": "alarm", "end":
2016-12-24 11:38:31,963 - Skills - DEBUG - {"type":
"connected", "data": {}, "context": null}
                                                                            "AlarmSkillKeyword"}, "context": null}
2016-12-24 11:38:31,965 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,082 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "timer", "end":
                                                                            "register_vocab", "data": {"start": "alarms", "end":
"AlarmSkillCreateVerb"}, "context": null}
                                                                            "AlarmSkillKeyword"}, "context": null}
2016-12-24 11:38:31,971 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:38:32,093 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "timers", "end":
                                                                           "register vocab", "data": {"start": "show", "end":
"AlarmSkillCreateVerb"}, "context": null}
                                                                           "AlarmSkillListVerb"}, "context": null}
2016-12-24 11:38:31,979 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:38:32,104 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "alarm", "end":
                                                                            "register vocab", "data": {"start": "list", "end":
"AlarmSkillCreateVerb"}, "context": null}
                                                                            "AlarmSkillListVerb"}, "context": null}
2016-12-24 11:38:31,985 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:38:32,111 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "alarms", "end":
                                                                            "register vocab", "data": {"regex":
"AlarmSkillCreateVerb"}, "context": null}
                                                                           "(?P<AlarmSkillAmount>\\d+)"}, "context": null}
2016-12-24 11:38:31,987 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:38:32,141 - Skills - DEBUG - {"type":
                                                                           "register_intent", "data": {"at_least_one": [], "requires": [["AlarmSkillCreateVerb", "AlarmSkillCreateVerb"]],
"register vocab", "data": {"start": "all", "end":
"AlarmSkillAmount"}, "context": null}
2016-12-24 11:38:31,991 - Skills - DEBUG - {"type":
                                                                            "optional": [], "name": "AlarmSkillCreateIntent"}, "context":
"register vocab", "data": {"start": "all my", "end":
                                                                           null}
"AlarmSkillAmount", "alias of": "all"}, "context": null}
                                                                           2016-12-24 11:38:32,152 - Skills - DEBUG - {"type":
2016-12-24 11:38:31,993 - Skills - DEBUG - {"type":
                                                                           "register_intent", "data": {"at_least_one": [], "requires":
                                                                           [["AlarmSkillListVerb", "AlarmSkillListVerb"], ["AlarmSkillKeyword", "AlarmSkillKeyword"]], "optional": [["AlarmSkillAmount", "AlarmSkillAmount"]], "name":
"register_vocab", "data": {"start": "1", "end":
"AlarmSkillAmount"}, "context": null}
2016-12-24 11:38:31,997 - Skills - DEBUG - {"type":
                                                                            "AlarmSkillListIntent"}, "context": null}
"register_vocab", "data": {"start": "one", "end":
"AlarmSkillAmount", "alias_of": "1"}, "context": null}
                                                                           2016-12-24 11:38:32,155 - Skills - DEBUG - {"type":
2016-12-24 11:38:32,003 - Skills - DEBUG - {"type":
                                                                           "register_intent", "data": {"at_least_one": [], "requires":
"register_vocab", "data": {"start": "2", "end":
                                                                           [["AlarmSkillDeleteVerb", "AlarmSkillDeleteVerb"],
                                                                           ["AlarmSkillKeyword", "AlarmSkillKeyword"]], "optional":
[["AlarmSkillAmount", "AlarmSkillAmount"]], "name":
"AlarmSkillAmount"}, "context": null}
2016-12-24 11:38:32,006 - Skills - DEBUG - {"type":
                                                                            "AlarmSkillDeleteIntent"}, "context": null}
"register_vocab", "data": {"start": "two", "end":
"AlarmSkillAmount", "alias_of": "2"}, "context": null}
                                                                           2016-12-24 11:38:32,159 - Skills - DEBUG - {"type":
2016-12-24 11:38:32,011 - Skills - DEBUG - {"type":
                                                                           "register intent", "data": {"at least one": [], "requires":
                                                                           [["AlarmSkillStopVerb", "AlarmSkillStopVerb"],
"register_vocab", "data": {"start": "the next", "end":
"AlarmSkillAmount"}, "context": null}
                                                                           ["AlarmSkillKeyword", "AlarmSkillKeyword"]], "optional": [],
```

"name": "AlarmSkillStopIntent"}, "context": null}

2016-12-24 11:38:32,014 - Skills - DEBUG - {"type":

"AlarmSkillAmount"}, "context": null}

"register_vocab", "data": {"start": "the following", "end":

```
2016-12-24 11:38:32,163 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,267 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "record", "end":
                                                                            "register vocab", "data": {"start": "config", "end":
"AudioRecordSkillKeyword"}, "context": null}
                                                                             "ConfigurationSkillKeyword"}, "context": null}
2016-12-24 11:38:32,165 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,273 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "recording", "end":
                                                                             "register_vocab", "data": {"start": "configuration", "end":
"AudioRecordSkillKeyword"}, "context": null}
                                                                             "ConfigurationSkillKeyword"}, "context": null}
2016-12-24 11:38:32,168 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32.278 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "end", "end":
                                                                            "register vocab", "data": {"start": "setting", "end":
                                                                             "ConfigurationSkillKeyword"}, "context": null}
"AudioRecordSkillStopVerb"}, "context": null}
2016-12-24 11:38:32,175 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,286 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "stop", "end":
                                                                             "register_vocab", "data": {"start": "update", "end":
                                                                             "ConfigurationSkillUpdateVerb"}, "context": null}
"AudioRecordSkillStopVerb"}, "context": null}
2016-12-24 11:38:32,180 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,292 - Skills - DEBUG - {"type":
                                                                             "register_vocab", "data": {"start": "reload", "end":
"register_vocab", "data": {"start": "cancel", "end":
"AudioRecordSkillStopVerb"}, "context": null}
                                                                             "ConfigurationSkillUpdateVerb"}, "context": null}
2016-12-24 11:38:32,198 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,301 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "run", "end":
                                                                             "register_vocab", "data": {"start": "sync", "end":
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                             "ConfigurationSkillUpdateVerb"}, "context": null}
2016-12-24 11:38:32,201 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,307 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "play", "end":
                                                                             "register_vocab", "data": {"start": "synchronize", "end":
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                            "ConfigurationSkillUpdateVerb"}, "context": null}
2016-12-24 11:38:32,208 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,314 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "replay", "end":
                                                                            "register_intent", "data": {"at_least_one": [], "requires":
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                            [["ConfigurationSkillKeyword", "ConfigurationSkillKeyword"],
2016-12-24 11:38:32,214 - Skills - DEBUG - {"type":
                                                                            ["ConfigurationSkillUpdateVerb",
"register_vocab", "data": {"start": "playback", "end":
                                                                             "ConfigurationSkillUpdateVerb"]], "optional": [], "name":
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                             "UpdateConfigurationIntent"}, "context": null}
2016-12-24 11:38:32,222 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,319 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "reproduce", "end":
                                                                            "register_vocab", "data": {"start": "what time is it", "end":
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                             "TimeKeyword"}, "context": null}
2016-12-24 11:38:32,228 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,323 - Skills - DEBUG - {"type":
                                                                             "register_vocab", "data": {"start": "what is the time", "end":
"register_vocab", "data": {"start": "running", "end":
                                                                             "TimeKeyword"}, "context": null}
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                            2016-12-24 11:38:32.327 - Skills - DEBUG - {"type":
2016-12-24 11:38:32.231 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "playing", "end":
                                                                            "register vocab", "data": {"start": "what's the time", "end":
"AudioRecordSkillPlayVerb"}, "context": null}
                                                                             "TimeKeyword"}, "context": null}
2016-12-24 11:38:32,235 - Skills - DEBUG - {"type":
                                                                            2016-12-24 11:38:32,347 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "replaying", "end":
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"WhenWereYouBornIntent"}, "context": null}

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                                                                          "register_vocab", "data": {"start": "next few hours", "end":
                                                                          "NextHours"}, "context": null}
"register_vocab", "data": {"start": "Lawrence kansas", "end":
"Location"}, "context": null}
                                                                          2016-12-24 11:38:35,141 - Skills - DEBUG - {"type":
                                                                          "register_vocab", "data": {"start": "the next few hours",
                                                                          "end": "NextHours"}, "context": null}
```

```
2016-12-24 11:38:35,144 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:38:36,520 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "in the next few hours",
                                                                        "intent_failure", "data": {"utterance": "what tim"},
"end": "NextHours"}, "context": null}
                                                                        "context": null}
2016-12-24 11:38:35,146 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:38:36,524 - wolfram alpha init - DEBUG -
"register_vocab", "data": {"start": "couple of hours", "end":
                                                                        Could not determine intent, falling back to WolframAlpha
"NextHours"}, "context": null}
2016-12-24 11:38:35,149 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:38:36.536 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "next couple of hours",
                                                                        "enclosure.mouth.think", "data": {}, "context": null}
"end": "NextHours"}, "context": null}
                                                                        2016-12-24 11:38:36,539 -
2016-12-24 11:38:35,151 - Skills - DEBUG - {"type":
                                                                        requests.packages.urllib3.connectionpool - INFO - Starting
"register_vocab", "data": {"start": "the next couple of
                                                                        new HTTPS connection (1): api.mycroft.ai
hours", "end": "NextHours"}, "context": null}
                                                                        2016-12-24 11:38:42,239 -
2016-12-24 11:38:35,155 - Skills - DEBUG - {"type":
                                                                        requests.packages.urllib3.connectionpool - DEBUG - "GET
"register_vocab", "data": {"start": "in the next couple of
                                                                        /v1/wa?input=what+tim HTTP/1.1" 200 5531
hours", "end": "NextHours"}, "context": null}
                                                                        2016-12-24 11:38:42,299 - Skills - DEBUG - {"type": "speak",
2016-12-24 11:38:35,157 - Skills - DEBUG - {"type":
                                                                        "data": {"utterance": "Tim (movie): title, Tim, director,
"register_vocab", "data": {"regex": "(at|in)
                                                                        Michael Pate, release date, September 17, 1981 (35 years 3
(?P<Location>.*)"}, "context": null}
                                                                        months ago), runtime, 109 minutes (1 hour 49 minutes),
2016-12-24 11:38:35,160 - Skills - DEBUG - {"type":
                                                                        writers, Colleen McCullough, Michael Pate, genres, drama,
"register_intent", "data": {"at_least_one": [], "requires":
                                                                        romance"}, "context": null}
[["WeatherKeyword", "WeatherKeyword"]], "optional":
                                                                        2016-12-24 11:38:42,336 - Skills - DEBUG - {"type":
[["Location", "Location"]], "name":
                                                                        "recognizer_loop:audio_output_start", "data": {}, "context":
"CurrentWeatherIntent"}, "context": null}
2016-12-24 11:38:35,164 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:38:44,954 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                        "enclosure.mouth.viseme", "data": {"code": "4"}, "context":
[["WeatherKeyword", "WeatherKeyword"], ["NextHours",
                                                                        null}
"NextHours"]], "optional": [["Location", "Location"]],
                                                                        2016-12-24 11:38:45,178 - Skills - DEBUG - {"type":
"name": "NextHoursWeatherIntent"}, "context": null}
                                                                        "enclosure.mouth.viseme", "data": {"code": "3"}, "context":
2016-12-24 11:38:35,167 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                        2016-12-24 11:38:45,277 - Skills - DEBUG - {"type":
[["WeatherKeyword", "WeatherKeyword"], ["NextDay",
                                                                        "enclosure.mouth.viseme", "data": {"code": "0"}, "context":
"NextDay"]], "optional": [["Location", "Location"]], "name":
"NextDayWeatherIntent"}, "context": null}
                                                                        2016-12-24 11:38:45,325 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "4"}, "context":
2016-12-24 11:38:35.169 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "wiki", "end":
"WikipediaKeyword"}, "context": null}
                                                                        2016-12-24 11:38:45,377 - Skills - DEBUG - {"type":
2016-12-24 11:38:35,172 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "4"}, "context":
"register vocab", "data": {"start": "wikipedia", "end":
"WikipediaKeyword"}, "context": null}
                                                                        2016-12-24 11:38:45,460 - Skills - DEBUG - {"type":
2016-12-24 11:38:35,175 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "2"}, "context":
"register vocab", "data": {"start": "tell me about", "end":
"WikipediaKeyword"}, "context": null}
                                                                        2016-12-24 11:38:45,523 - Skills - DEBUG - {"type":
2016-12-24 11:38:35,178 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "5"}, "context":
"register vocab", "data": {"start": "tell us about", "end":
"WikipediaKeyword"}, "context": null}
                                                                        2016-12-24 11:38:45,600 - Skills - DEBUG - {"type":
2016-12-24 11:38:35,180 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "0"}, "context":
"register vocab", "data": {"start": "what does wikipedia say
about", "end": "WikipediaKeyword"}, "context": null}
                                                                        2016-12-24 11:38:45,792 - Skills - DEBUG - {"type":
2016-12-24 11:38:35,182 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "4"}, "context":
"register_vocab", "data": {"regex": "(tell us about|tell me
about | what does wikipedia say about | wiki | wikipedia)
                                                                        2016-12-24 11:38:45,993 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "3"}, "context":
(?P<ArticleTitle>.*)"}, "context": null}
2016-12-24 11:38:35,184 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                        2016-12-24 11:38:46,091 - Skills - DEBUG - {"type":
[["WikipediaKeyword", "WikipediaKeyword"], ["ArticleTitle",
                                                                        "enclosure.mouth.viseme", "data": {"code": "0"}, "context":
"ArticleTitle"]], "optional": [], "name": "WikipediaIntent"},
                                                                        2016-12-24 11:38:46,238 - Skills - DEBUG - {"type":
"context": null}
2016-12-24 11:38:36,468 - Skills - DEBUG - {"type":
                                                                        "enclosure.mouth.viseme", "data": {"code": "3"}, "context":
"recognizer_loop:utterance", "data": {"utterances": ["what
tim"]}, "context": null}
                                                                        2016-12-24 11:38:46,248 - Skills - DEBUG - {"type":
2016-12-24 11:38:36,490 - intent__init__ - ERROR -
                                                                        "enclosure.mouth.viseme", "data": {"code": "0"}, "context":
Traceback (most recent call last):
File "/home/paul/Irene/mycroft/skills/intent/__init__.py",
                                                                        2016-12-24 11:38:46,363 - Skills - DEBUG - {"type":
line 48, in handle_utterance
                                                                        "enclosure.mouth.viseme", "data": {"code": "3"}, "context":
  utterance, 100))
```

StopIteration

```
2016-12-24 11:38:46,442 - Skills - DEBUG - {"type":
                                                                        /v1/device/c14b1936-4458-4859-9cab-
"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
                                                                        ebb56da21994/setting HTTP/1.1" 200 2887
                                                                        2016-12-24 11:40:17,755 - mycroft.messagebus.client.ws -
null}
2016-12-24 11:38:46,558 - Skills - DEBUG - {"type":
                                                                        INFO - Connected
"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
                                                                        ** (process:29476): [1;33mWARNING[0m **: Trying to
2016-12-24 11:38:46.645 - Skills - DEBUG - {"type":
                                                                        register gtype 'GMountMountFlags' as enum when in fact it
"enclosure.mouth.viseme", "data": {"code": "0"}, "context":
                                                                        is of type 'GFlags'
2016-12-24 11:38:46,815 - Skills - DEBUG - {"type":
                                                                        ** (process:29476): [1;33mWARNING[0m **: Trying to
"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
                                                                        register gtype 'GDriveStartFlags' as enum when in fact it is of
                                                                        type 'GFlags'
2016-12-24 11:38:46,889 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
                                                                        ** (process:29476): [1;33mWARNING[0m **: Trying to
                                                                        register gtype 'GSocketMsgFlags' as enum when in fact it is
2016-12-24 11:38:46,996 - Skills - DEBUG - {"type":
                                                                        of type 'GFlags'
"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
                                                                        2016-12-24 11:40:21,086 - Skills - DEBUG - {"type":
                                                                        "connected", "data": {}, "context": null}
2016-12-24 11:38:47,023 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,095 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "0"}, "context":
                                                                        "register_vocab", "data": {"start": "timer", "end":
                                                                        "AlarmSkillCreateVerb"}, "context": null}
2016-12-24 11:38:47,051 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,097 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "2"}, "context":
                                                                        "register_vocab", "data": {"start": "timers", "end":
null}
                                                                        "AlarmSkillCreateVerb"}, "context": null}
2016-12-24 11:38:47,158 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,104 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "0"}, "context":
                                                                        "register_vocab", "data": {"start": "alarm", "end":
                                                                        "AlarmSkillCreateVerb"}, "context": null}
2016-12-24 11:38:47,254 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,106 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
                                                                        "register_vocab", "data": {"start": "alarms", "end":
                                                                        "AlarmSkillCreateVerb"}, "context": null}
2016-12-24 11:38:47,344 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,110 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
                                                                        "register_vocab", "data": {"start": "all", "end":
                                                                        "AlarmSkillAmount"}, "context": null}
2016-12-24 11:38:47.433 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21.112 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "2"}, "context":
                                                                        "register vocab", "data": {"start": "all my", "end":
                                                                        "AlarmSkillAmount", "alias_of": "all"}, "context": null}
2016-12-24 11:38:47,708 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,114 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
                                                                        "register vocab", "data": {"start": "1", "end":
                                                                        "AlarmSkillAmount"}, "context": null}
null}
2016-12-24 11:38:47,909 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,120 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
                                                                        "register vocab", "data": {"start": "one", "end":
                                                                        "AlarmSkillAmount", "alias_of": "1"}, "context": null}
2016-12-24 11:38:47,953 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,123 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "0"}, "context":
                                                                        "register vocab", "data": {"start": "2", "end":
                                                                        "AlarmSkillAmount"}, "context": null}
2016-12-24 11:38:48,045 - Skills - DEBUG - {"type":
                                                                        2016-12-24 11:40:21,125 - Skills - DEBUG - {"type":
"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
                                                                        "register vocab", "data": {"start": "two", "end":
                                                                        "AlarmSkillAmount", "alias of": "2"}, "context": null}
/home/paul/Irene/init/start.sh: line 26: 28980 Terminated
                                                                        2016-12-24 11:40:21,127 - Skills - DEBUG - {"type":
PYTHONPATH=${TOP} python ${SCRIPT} $@
                                                                        "register_vocab", "data": {"start": "the next", "end":
Starting skills
                                                                        "AlarmSkillAmount"}, "context": null}
2016-12-24 11:40:15,944 - mycroft.configuration - DEBUG -
                                                                        2016-12-24 11:40:21,131 - Skills - DEBUG - {"type":
                                                                        "register_vocab", "data": {"start": "the following", "end":
Configuration
'/home/paul/Irene/mycroft/configuration/mycroft.conf'
                                                                        "AlarmSkillAmount"}, "context": null}
                                                                        2016-12-24 11:40:21,134 - Skills - DEBUG - {"type":
2016-12-24 11:40:15,945 - mycroft.configuration - DEBUG -
                                                                        "register_vocab", "data": {"start": "off", "end":
Configuration '/etc/mycroft/mycroft.conf' not found
                                                                        "AlarmSkillStopVerb"}, "context": null}
2016-12-24 11:40:15,945 - mycroft.configuration - DEBUG -
                                                                        2016-12-24 11:40:21,136 - Skills - DEBUG - {"type":
                                                                        "register_vocab", "data": {"start": "end", "end":
Configuration '/home/paul/.mycroft/mycroft.conf' not
found
                                                                        "AlarmSkillStopVerb"}, "context": null}
2016-12-24 11:40:16,256 -
                                                                        2016-12-24 11:40:21,138 - Skills - DEBUG - {"type":
requests.packages.urllib3.connectionpool - INFO - Starting
                                                                        "register_vocab", "data": {"start": "stop", "end":
new HTTPS connection (1): api.mycroft.ai
                                                                        "AlarmSkillStopVerb"}, "context": null}
2016-12-24 11:40:17,598 -
                                                                        2016-12-24 11:40:21,148 - Skills - DEBUG - {"type":
requests.packages.urllib3.connectionpool - DEBUG - "GET
                                                                        "register_vocab", "data": {"start": "erase", "end":
```

"AlarmSkillDeleteVerb"}, "context": null}

```
2016-12-24 11:40:21,152 - Skills - DEBUG - {"type":
                                                                                                    2016-12-24 11:40:21,354 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "cancel", "end":
                                                                                                     "register vocab", "data": {"start": "cancel", "end":
"AlarmSkillDeleteVerb"}, "context": null}
                                                                                                     "AudioRecordSkillStopVerb"}, "context": null}
2016-12-24 11:40:21,181 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,363 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "delete", "end":
                                                                                                     "register_vocab", "data": {"start": "run", "end":
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
"AlarmSkillDeleteVerb"}, "context": null}
2016-12-24 11:40:21.183 - Skills - DEBUG - {"type":
                                                                                                    2016-12-24 11:40:21.373 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "remove", "end":
                                                                                                     "register vocab", "data": {"start": "play", "end":
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
"AlarmSkillDeleteVerb"}, "context": null}
2016-12-24 11:40:21,190 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,383 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "timer", "end":
                                                                                                     "register_vocab", "data": {"start": "replay", "end":
"AlarmSkillKeyword"}, "context": null}
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
2016-12-24 11:40:21,193 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,394 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "timers", "end":
                                                                                                     "register_vocab", "data": {"start": "playback", "end":
"AlarmSkillKeyword"}, "context": null}
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
                                                                                                     2016-12-24 11:40:21,402 - Skills - DEBUG - {"type":
2016-12-24 11:40:21,196 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "alarm", "end":
                                                                                                     "register_vocab", "data": {"start": "reproduce", "end":
"AlarmSkillKeyword"}, "context": null}
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
2016-12-24 11:40:21,199 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,406 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "alarms", "end":
                                                                                                     "register_vocab", "data": {"start": "running", "end":
"AlarmSkillKeyword"}, "context": null}
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
2016-12-24 11:40:21,204 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,417 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "show", "end":
                                                                                                     "register_vocab", "data": {"start": "playing", "end":
"AlarmSkillListVerb"}, "context": null}
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
2016-12-24 11:40:21,206 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,423 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "list", "end":
                                                                                                     "register_vocab", "data": {"start": "replaying", "end":
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
"AlarmSkillListVerb"}, "context": null}
2016-12-24 11:40:21,215 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,428 - Skills - DEBUG - {"type":
"register vocab", "data": {"regex":
                                                                                                     "register vocab", "data": {"start": "reproducing", "end":
"(?P<AlarmSkillAmount>\\d+)"}, "context": null}
                                                                                                     "AudioRecordSkillPlayVerb"}, "context": null}
2016-12-24 11:40:21,268 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,437 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                                                     "register_intent", "data": {"at_least_one": [], "requires":
[["AlarmSkillCreateVerb", "AlarmSkillCreateVerb"]],
                                                                                                     [["AudioRecordSkillKeyword", "AudioRecordSkillKeyword"]],
"optional": [], "name": "AlarmSkillCreateIntent"}, "context":
                                                                                                     "optional": [], "name": "AudioRecordSkillIntent"}, "context":
                                                                                                    null}
2016-12-24 11:40:21,279 - Skills - DEBUG - {"type":
                                                                                                    2016-12-24 11:40:21,447 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                                                     "register_intent", "data": {"at_least_one": [], "requires":
[["AlarmSkillListVerb", "AlarmSkillListVerb"],
["AlarmSkillKeyword", "AlarmSkillKeyword"]], "optional":
[["AlarmSkillAmount", "AlarmSkillAmount"]], "name":
                                                                                                    "optional": [], "name": "AudioRecordSkillStopIntent"},
"AlarmSkillListIntent"}, "context": null}
                                                                                                     "context": null}
2016-12-24 11:40:21,289 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,454 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                                                     "register intent", "data": {"at least one": [], "requires":
                                                                                                     [ [ "AudioRecordSkillPlayVerb", "AudioRecordSkillPlayVerb" ], \\ [ "AudioRecordSkillKeyword", "AudioRecordSkillKeyword" ]], \\ [ "AudioRecordSkillNeyword", "AudioRecordSkillNeyword" ]], \\ [ "AudioR
[["AlarmSkillDeleteVerb", "AlarmSkillDeleteVerb"],
["AlarmSkillKeyword", "AlarmSkillKeyword"]], "optional":
[["AlarmSkillAmount", "AlarmSkillAmount"]], "name":
                                                                                                     "optional": [], "name": "AudioRecordSkillPlayIntent"},
"AlarmSkillDeleteIntent"}, "context": null}
                                                                                                     "context": null}
2016-12-24 11:40:21,293 - Skills - DEBUG - {"type":
                                                                                                     2016-12-24 11:40:21,469 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                                                     "register_intent", "data": {"at_least_one": [], "requires":
                                                                                                    [["AudioRecordSkillStopVerb", "AudioRecordSkillStopVerb"], ["AudioRecordSkillPlayVerb", "AudioRecordSkillPlayVerb"], ["AudioRecordSkillKeyword", "AudioRecordSkillKeyword"]],
[["AlarmSkillStopVerb", "AlarmSkillStopVerb"],
["AlarmSkillKeyword", "AlarmSkillKeyword"]], "optional": [],
"name": "AlarmSkillStopIntent"}, "context": null}
2016-12-24 11:40:21,301 - Skills - DEBUG - {"type":
                                                                                                     "optional": [], "name": "AudioRecordSkillStopPlayIntent"},
"register_vocab", "data": {"start": "record", "end":
                                                                                                     "context": null}
"AudioRecordSkillKeyword"}, "context": null}
                                                                                                     2016-12-24 11:40:21,473 - Skills - DEBUG - {"type":
2016-12-24 11:40:21,312 - Skills - DEBUG - {"type":
                                                                                                     "register_vocab", "data": {"start": "config", "end":
"register_vocab", "data": {"start": "recording", "end":
                                                                                                     "ConfigurationSkillKeyword"}, "context": null}
"AudioRecordSkillKeyword"}, "context": null}
                                                                                                     2016-12-24 11:40:21,480 - Skills - DEBUG - {"type":
                                                                                                     "register_vocab", "data": {"start": "configuration", "end":
2016-12-24 11:40:21,324 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "end", "end":
                                                                                                     "ConfigurationSkillKeyword"}, "context": null}
"AudioRecordSkillStopVerb"}, "context": null}
                                                                                                     2016-12-24 11:40:21,485 - Skills - DEBUG - {"type":
2016-12-24 11:40:21,341 - Skills - DEBUG - {"type":
                                                                                                     "register_vocab", "data": {"start": "setting", "end":
"register_vocab", "data": {"start": "stop", "end":
                                                                                                     "ConfigurationSkillKeyword"}, "context": null}
"AudioRecordSkillStopVerb"}, "context": null}
                                                                                                     2016-12-24 11:40:21,496 - Skills - DEBUG - {"type":
                                                                                                     "register_vocab", "data": {"start": "update", "end":
```

"ConfigurationSkillUpdateVerb"}, "context": null}

```
2016-12-24 11:40:21,503 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:40:21,657 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "reload", "end":
                                                                           "register vocab", "data": {"start": "amazon", "end":
"ConfigurationSkillUpdateVerb"}, "context": null}
                                                                           "Website"}, "context": null}
2016-12-24 11:40:21,510 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:40:21,664 - Skills - DEBUG - {"type":
"register_vocab", "data": {"start": "sync", "end":
                                                                           "register_vocab", "data": {"start": "youtube", "end":
"ConfigurationSkillUpdateVerb"}, "context": null}
                                                                           "Website"}, "context": null}
2016-12-24 11:40:21,517 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:40:21,668 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "synchronize", "end":
                                                                           "register vocab", "data": {"start": "yahoo", "end":
"ConfigurationSkillUpdateVerb"}, "context": null}
                                                                           "Website"}, "context": null}
2016-12-24 11:40:21,531 - Skills - DEBUG - {"type":
                                                                           2016-12-24 11:40:21,672 - Skills - DEBUG - {"type":
"register_intent", "data": {"at_least_one": [], "requires":
                                                                           "register_vocab", "data": {"start": "wikipedia", "end":
[["ConfigurationSkillKeyword", "ConfigurationSkillKeyword"],
                                                                           "Website"}, "context": null}
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2016-12-24 11:40:24.334 - Skills - DEBUG - {"type":
"register vocab", "data": {"start": "in the next hours", "end":
                                                                         "ArticleTitle"]], "optional": [], "name": "WikipediaIntent"},
"NextHours"}, "context": null}
                                                                         "context": null}
2016-12-24 11:40:24,338 - Skills - DEBUG - {"type":
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"register vocab", "data": {"start": "few hours", "end":
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"NextHours"}, "context": null}
                                                                         about my chemical romance"]}, "context": null}
2016-12-24 11:40:24,346 - Skills - DEBUG - {"type":
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"register vocab", "data": {"start": "next few hours", "end":
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2016-12-24 11:40:24,349 - Skills - DEBUG - {"type":
                                                                         "tell me about", "intent_type": "WikipediaIntent",
"register_vocab", "data": {"start": "the next few hours",
                                                                         "ArticleTitle": "my chemical romance", "utterance": "tell me
"end": "NextHours"}, "context": null}
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2016-12-24 11:40:24,355 - Skills - DEBUG - {"type":
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                                                                         "data": {"utterance": "Okay, I am searching for my chemical
"end": "NextHours"}, "context": null}
                                                                         romance"}, "context": null}
2016-12-24 11:40:24,363 - Skills - DEBUG - {"type":
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"register_vocab", "data": {"start": "couple of hours", "end":
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"NextHours"}, "context": null}
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2016-12-24 11:40:24,365 - Skills - DEBUG - {"type":
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"end": "NextHours"}, "context": null}
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2016-12-24 11:40:24,371 - Skills - DEBUG - {"type":
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"register_vocab", "data": {"start": "the next couple of
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hours", "end": "NextHours"}, "context": null}
                                                                         /w/api.php?format=json&srsearch=my+chemical+romance&
2016-12-24 11:40:24,380 - Skills - DEBUG - {"type":
                                                                         list=search&srlimit=5&srprop=&limit=5&action=query
"register_vocab", "data": {"start": "in the next couple of
                                                                         HTTP/1.1" 301 0
hours", "end": "NextHours"}, "context": null}
                                                                         2016-12-24 11:40:36,968 -
2016-12-24 11:40:24,386 - Skills - DEBUG - {"type":
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"register_vocab", "data": {"regex": "(at|in)
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(?P<Location>.*)"}, "context": null}
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2016-12-24 11:40:37,749 - Skills - DEBUG - {"type":
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2016-12-24 11:40:38,064 -
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requests.packages.urllib3.connectionpool - DEBUG - "GET
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/w/api.php?format=ison&srsearch=my+chemical+romance&
list=search&srlimit=5&srprop=&limit=5&action=query
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HTTP/1.1" 200 248
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2016-12-24 11:40:38,089 - Skills - DEBUG - {"type":
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null}
2016-12-24 11:40:38,092 -
requests.packages.urllib3.connectionpool - INFO - Starting
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new HTTP connection (1): en.wikipedia.org
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"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
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2016-12-24 11:40:38,225 - Skills - DEBUG - {"type":
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2016-12-24 11:40:38,323 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "2"}, "context":
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2016-12-24 11:40:38,412 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
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null}
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2016-12-24 11:40:38,497 -
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ance&format=json&srlimit=1&list=search&srprop=&limit=1
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&action=query HTTP/1.1" 301 0
2016-12-24 11:40:38.511 -
requests.packages.urllib3.connectionpool - INFO - Starting
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new HTTPS connection (1): en.wikipedia.org
2016-12-24 11:40:38,544 - Skills - DEBUG - {"type":
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null}
2016-12-24 11:40:38,610 - Skills - DEBUG - {"type":
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2016-12-24 11:40:38,867 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "6"}, "context":
                                                                      sambiguation \&prop=info\%7 Cpage props \&titles=My+Chemica
                                                                      I+Romance&action=query HTTP/1.1" 301 0
2016-12-24 11:40:38,928 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "2"}, "context":
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null}
                                                                      new HTTPS connection (1): en.wikipedia.org
```

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2016-12-24 11:40:44,643 - Skills - DEBUG - {"type":
2016-12-24 11:40:40,267 - Skills - DEBUG - {"type":
"recognizer_loop:audio_output_end", "data": {}, "context":
                                                                       "enclosure.mouth.viseme", "data": {"code": "2"}, "context":
null}
2016-12-24 11:40:41,344 -
                                                                       2016-12-24 11:40:44,691 - Skills - DEBUG - {"type":
requests.packages.urllib3.connectionpool - DEBUG - "GET
                                                                       "enclosure.mouth.viseme", "data": {"code": "2"}, "context":
/w/api.php?inprop=url&redirects=&format=json&ppprop=di
sambiguation&prop=info%7Cpageprops&titles=My+Chemica
                                                                       2016-12-24 11:40:44.740 - Skills - DEBUG - {"type":
I+Romance&action=query HTTP/1.1" 200 280
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2016-12-24 11:40:41,364 -
requests.packages.urllib3.connectionpool - INFO - Starting
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2016-12-24 11:40:41,780 -
requests.packages.urllib3.connectionpool - DEBUG - "GET
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/w/api.php?format=json&exsentences=2&prop=extracts&tit
                                                                       "enclosure.mouth.viseme", "data": {"code": "3"}, "context":
les=My+Chemical+Romance&action=query&explaintext=
HTTP/1.1" 301 0
                                                                       2016-12-24 11:40:44,932 - Skills - DEBUG - {"type":
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2016-12-24 11:40:42,860 -
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requests.packages.urllib3.connectionpool - DEBUG - "GET
/w/api.php?format=json&exsentences=2&prop=extracts&tit
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les=My+Chemical+Romance&action=query&explaintext=
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HTTP/1.1" 200 277
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2016-12-24 11:40:42,878 - Skills - DEBUG - {"type": "speak",
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"data": {"utterance": "My Chemical Romance was an
                                                                       "enclosure.mouth.viseme", "data": {"code": "3"}, "context":
American rock band from New Jersey, active from 2001 to
2013. The band's best-known lineup consisted of lead
                                                                       2016-12-24 11:40:45,178 - Skills - DEBUG - {"type":
vocalist Gerard Way, guitarists Ray Toro and Frank Iero,
                                                                       "enclosure.mouth.viseme", "data": {"code": "0"}, "context":
bassist Mikey Way and drummer Bob Bryar."}, "context":
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2016-12-24 11:40:42,885 - Skills - DEBUG - {"type":
"recognizer_loop:audio_output_start", "data": {}, "context":
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2016-12-24 11:40:44,172 - Skills - DEBUG - {"type":
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2016-12-24 11:40:44,412 - Skills - DEBUG - {"type":
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null}
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2016-12-24 11:40:47,881 - Skills - DEBUG - {"type":
2016-12-24 11:40:46,015 - Skills - DEBUG - {"type":
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null}
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2016-12-24 11:40:46,044 - Skills - DEBUG - {"type":
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2016-12-24 11:40:46,925 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "3"}, "context":
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null}
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2016-12-24 11:40:47,036 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "4"}, "context":
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2016-12-24 11:40:47,459 - Skills - DEBUG - {"type":
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2016-12-24 11:40:47,542 - Skills - DEBUG - {"type":
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2016-12-24 11:40:47,653 - Skills - DEBUG - {"type":
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"enclosure.mouth.viseme", "data": {"code": "0"}, "context":
                                                                       PYTHONPATH=${TOP} python ${SCRIPT} $@
2016-12-24 11:40:47,684 - Skills - DEBUG - {"type":
                                                                       Directory: intelora-core/logs/intelora-voice.log
"enclosure.mouth.viseme", "data": {"code": "5"}, "context":
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2016-12-24 11:40:47,738 - Skills - DEBUG - {"type":
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2016-12-24 11:40:47,821 - Skills - DEBUG - {"type": "enclosure.mouth.viseme", "data": {"code": "2"}, "context":

null}

null}

2016-12-24 11:38:27,963 - mycroft.configuration - DEBUG -Configuration

'/home/paul/Irene/mycroft/configuration/mycroft.conf'

2016-12-24 11:38:27,964 - mycroft.configuration - DEBUG - Configuration '/etc/mycroft/mycroft.conf' not found 2016-12-24 11:38:27,965 - mycroft.configuration - DEBUG - Configuration '/home/paul/.mycroft/mycroft.conf' not found

2016-12-24 11:38:28,265 -

requests.packages.urllib3.connectionpool - INFO - Starting new HTTPS connection (1): api.mycroft.ai 2016-12-24 11:38:29,542 -

requests.packages.urllib3.connectionpool - DEBUG - "GET /v1/device/c14b1936-4458-4859-9cab-

ebb56da21994/setting HTTP/1.1" 200 2887

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version: mimic-2.0.0-release Dec 2014 (http://cmuflite.org) ALSA lib pcm_dsnoop.c:618:(snd_pcm_dsnoop_open) unable to open slave

ALSA lib pcm_dmix.c:1041:(snd_pcm_dmix_open) unable to open slave

ALSA lib pcm.c:2450:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.rear

ALSA lib pcm.c:2450:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.center_lfe

ALSA lib pcm.c:2450:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.side

ALSA lib pcm_dmix.c:1041:(snd_pcm_dmix_open) unable to open slave

connect(2) call to /dev/shm/jack-1000/default/jack_0 failed (err=No such file or directory)

attempt to connect to server failed

2016-12-24 11:38:31,411 - mycroft.messagebus.client.ws - INFO - Connected

2016-12-24 11:38:32,391 - mycroft.client.speech.mic - DEBUG - Waiting for wake word...

2016-12-24 11:38:42,338 - SpeechClient - INFO - Speak: Tim (movie): title, Tim, director, Michael Pate, release date, September 17, 1981 (35 years 3 months ago), runtime, 109 minutes (1 hour 49 minutes), writers, Colleen McCullough, Michael Pate, genres, drama, romance

Playing WAVE '/tmp/tts.wav' : Signed 16 bit Little Endian, Rate 16000 Hz, Mono

/home/paul/Irene/init/start.sh: line 26: 28995 Terminated PYTHONPATH=\${TOP} python \${SCRIPT} \$@ Starting voice

2016-12-24 11:40:17,030 - mycroft.configuration - DEBUG - Configuration

'/home/paul/Irene/mycroft/configuration/mycroft.conf'

2016-12-24 11:40:17,031 - mycroft.configuration - DEBUG - Configuration '/etc/mycroft/mycroft.conf' not found 2016-12-24 11:40:17,031 - mycroft.configuration - DEBUG - Configuration '/home/paul/.mycroft/mycroft.conf' not found

2016-12-24 11:40:17,323 -

requests.packages.urllib3.connectionpool - INFO - Starting new HTTPS connection (1): api.mycroft.ai 2016-12-24 11:40:18,677 -

requests.packages.urllib3.connectionpool - DEBUG - "GET /v1/device/c14b1936-4458-4859-9cab-

ebb56da21994/setting HTTP/1.1" 200 2887

Carnegie Mellon University, Copyright (c) 1999-2011, all rights reserved

version: mimic-2.0.0-release Dec 2014 (http://cmuflite.org) ALSA lib pcm_dsnoop.c:618:(snd_pcm_dsnoop_open) unable to open slave

ALSA lib pcm_dmix.c:1041:(snd_pcm_dmix_open) unable to open slave

ALSA lib pcm.c:2450:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.rear

ALSA lib pcm.c:2450:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.center_lfe

ALSA lib pcm.c:2450:(snd_pcm_open_noupdate) Unknown PCM cards.pcm.side

ALSA lib pcm_dmix.c:1041:(snd_pcm_dmix_open) unable to open slave

connect(2) call to /dev/shm/jack-1000/default/jack_0 failed (err=No such file or directory)

attempt to connect to server failed

2016-12-24 11:40:20,597 - mycroft.messagebus.client.ws - INFO - Connected

2016-12-24 11:40:21,599 - mycroft.client.speech.mic -

DEBUG - Waiting for wake word...

2016-12-24 11:40:36,524 - SpeechClient - INFO - Speak:

Okay, I am searching for my chemical romance

Playing WAVE '/tmp/tts.wav' : Signed 16 bit Little Endian, Rate 16000 Hz, Mono

2016-12-24 11:40:42,880 - SpeechClient - INFO - Speak: My Chemical Romance was an American rock band from New Jersey, active from 2001 to 2013.

Playing WAVE '/tmp/tts.wav' : Signed 16 bit Little Endian, Rate 16000 Hz, Mono

/home/paul/Irene/init/start.sh: line 26: 29491 Terminated PYTHONPATH=\${TOP} python \${SCRIPT} \$@

Directory: inteloracore/misc/backup/google_tts (forslund).py

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#

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<a href="http://www.gnu.org/licenses/">http://www.gnu.org/licenses/>.</a>
                                                                        # You should have received a copy of the GNU General
from gtts import gTTS
                                                                        Public License
                                                                        # along with Mycroft Core. If not, see
from mycroft.tts import TTS, TTSValidator
                                                                        <a href="http://www.gnu.org/licenses/">http://www.gnu.org/licenses/>.</a>
from mycroft.util import play_mp3
                                                                        from mycroft.configuration import ConfigurationManager
__author__ = 'jdorleans'
                                                                        from mycroft.tts import TTS, TTSValidator
                                                                        from mycroft.util import play_mp3
NAME = 'gtts'
                                                                        import os
                                                                         __author__ = 'jcasoft'
class GoogleTTS(TTS):
                                                                        core_config = ConfigurationManager.get().get('core')
  def __init__(self, lang, voice):
    super(GoogleTTS, self).__init__(lang, voice)
                                                                        NAME = 'gtts'
  def execute(self, sentence, client):
                                                                        class GoogleTTS(TTS):
    for s in sentence.split('.'):
                                                                           def __init__(self, lang, voice):
     tts = gTTS(text=s)
                                                                             super(GoogleTTS, self).__init__(lang, voice)
                                                                                    self.language = core_config.get('lang')
      tts.save('/tmp/gtts.mp3')
      play_mp3('/tmp/gtts.mp3')
                                                                           def execute(self, sentence, client):
                                                                                    lang = self.language
class GoogleTTSValidator(TTSValidator):
  def init (self):
                                                                                    get sentence = 'wget -q -U Mozilla -O
    super(GoogleTTSValidator, self).__init__()
                                                                        /tmp/gtts.mp3
                                                                         "https://translate.google.com/translate_tts?tl=' + lang +
  def validate lang(self, lang):
                                                                         '&q='+ sentence +'&client=tw-ob'+'"'
    #TODO
                                                                                    os.system(get sentence)
    pass
                                                                                    play_mp3("/tmp/gtts.mp3")
  def validate_connection(self, tts):
                                                                        class GoogleTTSValidator(TTSValidator):
                                                                           def __init__(self):
      gTTS(text='Hi').save(tts.filename)
                                                                             super(GoogleTTSValidator, self). init ()
    except:
      raise Exception(
                                                                           def validate_lang(self, lang):
         'GoogleTTS server could not be verified. Please
                                                                             # TODO
check your '
                                                                             pass
         'internet connection.')
                                                                           def validate_connection(self, tts):
  def get instance(self):
                                                                             try:
    return GoogleTTS
                                                                                    pass
                                                                             except:
                                                                               raise Exception(
                                                                                  'GTTS not connected. Please check your internet
Directory: intelora-
                                                                        connection.')
core/misc/backup/google_tts (jcasoft).py
                                                                           def get_instance(self):
# Copyright 2016 Mycroft AI, Inc.
                                                                             return GoogleTTS
# This file is part of Mycroft Core.
                                                                        Directory: intelora-
                                                                        core/misc/backup/google_tts (original).py
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and/or modify
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published by
```

```
# This file is part of Mycroft Core.
                                                                        Directory: intelora-
                                                                        core/mycroft/api/__init__.py
# Mycroft Core is free software: you can redistribute it
and/or modify
                                                                        import requests
# it under the terms of the GNU General Public License as
                                                                        from requests import HTTPError
published by
# the Free Software Foundation, either version 3 of the
                                                                        from mycroft.configuration import ConfigurationManager
License, or
                                                                        from mycroft.identity import IdentityManager
# (at your option) any later version.
                                                                        from mycroft.version import VersionManager
# Mycroft Core is distributed in the hope that it will be
                                                                         __author__ = 'jdorleans'
# but WITHOUT ANY WARRANTY; without even the implied
warranty of
                                                                        class Api(object):
# MERCHANTABILITY or FITNESS FOR A PARTICULAR
                                                                           def __init__(self, path):
PURPOSE. See the
                                                                            self.path = path
# GNU General Public License for more details.
                                                                             config = ConfigurationManager().get()
                                                                             config_server = config.get("server")
# You should have received a copy of the GNU General
                                                                             self.url = config_server.get("url")
Public License
                                                                             self.version = config server.get("version")
# along with Mycroft Core. If not, see
                                                                             self.identity = IdentityManager.get()
<a href="http://www.gnu.org/licenses/">http://www.gnu.org/licenses/>.</a>
                                                                           def check token(self):
from gtts import gTTS
                                                                             if self.identity.refresh and self.identity.is expired():
                                                                               self.identity = IdentityManager.load()
from mycroft.tts import TTS, TTSValidator
                                                                               if self.identity.is_expired():
from mycroft.util import play_wav
                                                                                 data = self.send({
                                                                                    "path": "auth/token",
__author__ = 'jdorleans'
                                                                                    "headers": {
                                                                                      "Authorization": "Bearer " +
NAME = 'gtts'
                                                                        self.identity.refresh
class GoogleTTS(TTS):
                                                                                 IdentityManager.save(data)
  def init (self, lang, voice):
    super(GoogleTTS, self).__init__(lang, voice)
                                                                           def send(self, params):
                                                                             method = params.get("method", "GET")
  def execute(self, sentence, client):
                                                                             headers = self.build_headers(params)
    tts = gTTS(text=sentence, lang=self.lang)
                                                                             data = self.build_data(params)
    tts.save(self.filename)
                                                                            json = self.build_json(params)
    play wav(self.filename)
                                                                             query = self.build_query(params)
                                                                             url = self.build_url(params)
                                                                             response = requests.request(method, url,
class GoogleTTSValidator(TTSValidator):
                                                                        headers=headers, params=query,
  def __init__(self):
                                                                                            data=data, json=json)
    super(GoogleTTSValidator, self).__init__()
                                                                             return self.get_response(response)
  def validate lang(self, lang):
                                                                           def request(self, params):
    #TODO
                                                                             self.check_token()
    pass
                                                                             self.build_path(params)
                                                                             return self.send(params)
  def validate_connection(self, tts):
                                                                           def get_response(self, response):
      gTTS(text='Hi').save(tts.filename)
                                                                             data = self.get data(response)
    except:
                                                                             if 200 <= response.status_code < 300:
      raise Exception(
                                                                               return data
         'GoogleTTS server could not be verified. Please
                                                                             raise HTTPError(data, response=response)
check your
         'internet connection.')
                                                                           def get_data(self, response):
                                                                             try:
  def get instance(self):
                                                                               return response.json()
    return GoogleTTS
                                                                             except:
                                                                               return response.text
                                                                           def build_headers(self, params):
```

```
headers = params.get("headers", {})
                                                                              "path": "/" + self.identity.uuid
    self.add_content_type(headers)
    self.add_authorization(headers)
    params["headers"] = headers
                                                                         def find setting(self):
    return headers
                                                                           return self.request({
                                                                              "path": "/" + self.identity.uuid + "/setting"
  def add_content_type(self, headers):
    if not headers. contains ("Content-Type"):
      headers["Content-Type"] = "application/json"
                                                                       class STTApi(Api):
  def add authorization(self, headers):
                                                                         def init (self):
    if not headers.__contains__("Authorization"):
                                                                           super(STTApi, self).__init__("stt")
      headers["Authorization"] = "Bearer" +
                                                                         def stt(self, audio, language, limit):
self.identity.access
                                                                            return self.request({
  def build_data(self, params):
                                                                              "method": "POST",
                                                                              "headers": {"Content-Type": "audio/x-flac"},
    return params.get("data")
                                                                              "query": {"lang": language, "limit": limit},
  def build_json(self, params):
                                                                              "data": audio
    json = params.get("json")
                                                                           })
    if json and params["headers"]["Content-Type"] ==
"application/json":
                                                                       Directory: intelora-
      for k, v in json.iteritems():
                                                                       core/mycroft/client/enclore/__init__.py
        if v == "":
          json[k] = None
                                                                       import subprocess
      params["json"] = json
                                                                       import time
    return json
                                                                       from Queue import Queue
                                                                       from alsaaudio import Mixer
  def build_query(self, params):
                                                                       from threading import Thread, Timer
    return params.get("query")
                                                                       import serial
  def build_path(self, params):
    path = params.get("path", "")
                                                                       from mycroft.client.enclosure.arduino import
    params["path"] = self.path + path
                                                                       EnclosureArduino
    return params["path"]
                                                                       from mycroft.client.enclosure.eyes import EnclosureEyes
                                                                       from mycroft.client.enclosure.mouth import
  def build_url(self, params):
                                                                       EnclosureMouth
    path = params.get("path", "")
                                                                       from mycroft.client.enclosure.weather import
    version = params.get("version", self.version)
                                                                       EnclosureWeather
    return self.url + "/" + version + "/" + path
                                                                       from mycroft.configuration import ConfigurationManager
                                                                       from mycroft.messagebus.client.ws import WebsocketClient
                                                                       from mycroft.messagebus.message import Message
class DeviceApi(Api):
                                                                       from \ mycroft.util \ import \ play\_wav, \ create\_signal
  def init (self):
                                                                       from mycroft.util.audio_test import record
    super(DeviceApi, self).__init__("device")
                                                                       from mycroft.util.log import getLogger
  def get code(self, state):
                                                                        __author__ = 'aatchison', 'jdorleans', 'iward'
    IdentityManager.update()
    return self.request({
                                                                       LOG = getLogger("EnclosureClient")
      "path": "/code?state=" + state
                                                                       class EnclosureReader(Thread):
  def activate(self, state, token):
    version = VersionManager.get()
                                                                         Reads data from Serial port.
    return self.request({
      "method": "POST",
                                                                         Listens to all commands sent by Arduino that must be be
      "path": "/activate",
                                                                       performed on
      "json": {"state": state,
                                                                         Mycroft Core.
           "token": token,
           "coreVersion": version.get("coreVersion"),
                                                                         E.g. Mycroft Stop Feature
           "enclosureVersion":
                                                                           #. Arduino sends a Stop command after a button press
version.get("enclosureVersion")}
                                                                       on a Mycroft unit
    })
                                                                           #. "EnclosureReader" captures the Stop command
                                                                           #. Notify all Mycroft Core processes (e.g. skills) to be
  def find(self):
                                                                       stopped
    return self.request({
```

```
Note: A command is identified by a line break
                                                                               self.ws.emit(
                                                                                 Message("enclosure.eyes.timedspin",
                                                                                     {'length': 12000}))
  def __init__(self, serial, ws):
                                                                               self.ws.emit(Message("enclosure.mouth.reset"))
    super(EnclosureReader, self).__init__(target=self.read)
                                                                               subprocess.call('systemctl poweroff -i', shell=True)
    self.alive = True
    self.daemon = True
                                                                            if "unit.reboot" in data:
    self.serial = serial
                                                                               self.ws.emit(
    self.ws = ws
                                                                                 Message("enclosure.eyes.spin"))
    self.start()
                                                                               self.ws.emit(Message("enclosure.mouth.reset"))
                                                                               subprocess.call('systemctl reboot -i', shell=True)
  def read(self):
    while self.alive:
                                                                            if "unit.setwifi" in data:
                                                                               self.ws.emit(Message("mycroft.wifi.start"))
      try:
         data = self.serial.readline()[:-2]
                                                                            if "unit.factory-reset" in data:
        if data:
           self.process(data)
                                                                               subprocess.call(
           LOG.info("Reading: " + data)
                                                                                 'rm ~/.mycroft/identity/identity.json',
      except Exception as e:
                                                                                 shell=True)
         LOG.error("Reading error: {0}".format(e))
                                                                               self.ws.emit(
                                                                                 Message("enclosure.eyes.spin"))
  def process(self, data):
                                                                               self.ws.emit(Message("enclosure.mouth.reset"))
    self.ws.emit(Message(data))
                                                                               subprocess.call('systemctl reboot -i', shell=True)
    if "Command: system.version" in data:
                                                                          def stop(self):
                                                                            self.alive = False
      self.ws.emit(Message("enclosure.start"))
    if "mycroft.stop" in data:
      create_signal('buttonPress') # FIXME - Must use WS
                                                                        class EnclosureWriter(Thread):
instead
      self.ws.emit(Message("mycroft.stop"))
                                                                          Writes data to Serial port.
                                                                            #. Enqueues all commands received from Mycroft
    if "volume.up" in data:
                                                                        enclosures
      self.ws.emit(
                                                                              implementation
         Message("IncreaseVolumeIntent", {'play_sound':
                                                                             #. Process them on the received order by writing on the
True}))
                                                                        Serial port
    if "volume.down" in data:
                                                                          E.g. Displaying a text on Mycroft's Mouth
                                                                             #. "EnclosureMouth" sends a text command
      self.ws.emit(
                                                                             #. "EnclosureWriter" captures and enqueue the
         Message("DecreaseVolumeIntent", {'play_sound':
True}))
                                                                            #. ``EnclosureWriter`` removes the next command from
    if "system.test.begin" in data:
                                                                        the aueue
      self.ws.emit(Message('recognizer_loop:sleep'))
                                                                             #. ``EnclosureWriter`` writes the command to Serial port
    if "system.test.end" in data:
                                                                          Note: A command has to end with a line break
      self.ws.emit(Message('recognizer loop:wake up'))
    if "mic.test" in data:
                                                                          def __init__(self, serial, ws, size=16):
                                                                            super(EnclosureWriter, self).__init__(target=self.flush)
      mixer = Mixer()
      prev_vol = mixer.getvolume()[0]
                                                                            self.alive = True
      mixer.setvolume(35)
                                                                            self.daemon = True
      self.ws.emit(Message("speak", {
                                                                            self.serial = serial
         'utterance': "I am testing one two three"}))
                                                                            self.ws = ws
                                                                            self.commands = Queue(size)
      time.sleep(0.5) # Prevents recording the loud button
                                                                            self.start()
press
      record("/tmp/test.wav", 3.0)
                                                                           def flush(self):
      mixer.setvolume(prev_vol)
                                                                            while self.alive:
      play_wav("/tmp/test.wav").communicate()
                                                                               try:
                                                                                 cmd = self.commands.get()
      # Test audio muting on arduino
                                                                                 self.serial.write(cmd + '\n')
      subprocess.call('speaker-test -P 10 -l 0 -s 1',
                                                                                 LOG.info("Writing: " + cmd)
shell=True)
                                                                                 self.commands.task_done()
                                                                               except Exception as e:
```

if "unit.shutdown" in data:

```
LOG.error("Writing error: {0}".format(e))
                                                                            self.ws.on('enclosure.mouth.events.deactivate',
                                                                                   self.__remove_mouth_events)
  def write(self, command):
                                                                            self.__register_mouth_events()
    self.commands.put(str(command))
                                                                          def __register_mouth_events(self, event=None):
  def stop(self):
                                                                            self.ws.on('recognizer_loop:record_begin',
    self.alive = False
                                                                        self.mouth.listen)
                                                                            self.ws.on('recognizer_loop:record_end',
                                                                        self.mouth.reset)
                                                                            self.ws.on('recognizer_loop:audio_output_start',
class Enclosure(object):
                                                                        self.mouth.talk)
  Serves as a communication interface between Arduino
                                                                             self.ws.on('recognizer_loop:audio_output_end',
and Mycroft Core.
                                                                        self.mouth.reset)
  "Enclosure" initializes and aggregates all enclosures
                                                                          def __remove_mouth_events(self, event=None):
implementation.
                                                                             self.ws.remove('recognizer_loop:record_begin',
                                                                        self.mouth.listen)
  E.g. "EnclosureEyes", "EnclosureMouth" and
                                                                            self.ws.remove('recognizer_loop:record_end',
`EnclosureArduino`
                                                                        self.mouth.reset)
                                                                            self.ws.remove('recognizer_loop:audio_output_start',
  It also listens to the basis events in order to perform those
                                                                                     self.mouth.talk)
core actions
                                                                            self.ws.remove('recognizer_loop:audio_output_end',
                                                                                     self.mouth.reset)
  on the unit.
  E.g. Start and Stop talk animation
                                                                          def speak(self, text):
                                                                            self.ws.emit(Message("speak", {'utterance': text}))
  def __init__(self):
                                                                          def run(self):
    self.ws = WebsocketClient()
                                                                            try:
                                                                               self.ws.run_forever()
    ConfigurationManager.init(self.ws)
    self.config =
                                                                            except Exception as e:
ConfigurationManager.get().get("enclosure")
                                                                               LOG.error("Error: {0}".format(e))
    self.__init_serial()
                                                                               self.stop()
    self.reader = EnclosureReader(self.serial, self.ws)
    self.writer = EnclosureWriter(self.serial, self.ws)
                                                                          def stop(self):
    self.writer.write("system.version")
                                                                            if not self.started:
    self.ws.on("enclosure.start", self.start)
                                                                               self.writer.stop()
    self.started = False
                                                                               self.reader.stop()
    Timer(5, self.stop).start()
                                                                               self.serial.close()
                                                                               self.ws.close()
  def start(self, event=None):
    self.eyes = EnclosureEyes(self.ws, self.writer)
                                                                        Directory: intelora-
    self.mouth = EnclosureMouth(self.ws, self.writer)
                                                                        core/mycroft/client/enclore/api.py
    self.system = EnclosureArduino(self.ws, self.writer)
    self.weather = EnclosureWeather(self.ws, self.writer)
                                                                        from mycroft.messagebus.message import Message
    self.__register_events()
                                                                        from mycroft.util.log import getLogger
    self.started = True
                                                                        __author__ = 'jdorleans'
  def __init_serial(self):
    try:
                                                                        LOGGER = getLogger(__name__)
      self.port = self.config.get("port")
      self.rate = self.config.get("rate")
      self.timeout = self.config.get("timeout")
                                                                        class EnclosureAPI:
      self.serial = serial.serial_for_url(
        url=self.port, baudrate=self.rate,
                                                                          This API is intended to be used to interface with the
timeout=self.timeout)
                                                                        hardware
      LOG.info("Connected to: %s rate: %s timeout: %s" %
                                                                          that is running Mycroft. It exposes all possible commands
           (self.port, self.rate, self.timeout))
                                                                        which
                                                                          can be sent to a Mycroft enclosure implementation.
      LOG.error("Impossible to connect to serial port: " +
self.port)
      raise
                                                                          def __init__(self, ws):
                                                                            self.ws = ws
  def __register_events(self):
    self.ws.on('enclosure.mouth.events.activate',
                                                                          def system_reset(self):
          self.__register_mouth_events)
```

```
self.ws.emit(Message("enclosure.system.reset"))
                                                                         def mouth_text(self, text=""):
  def system mute(self):
                                                                          self.ws.emit(Message("enclosure.mouth.text", {'text':
    self.ws.emit(Message("enclosure.system.mute"))
                                                                      text}))
                                                                         def weather_display(self, img_code, temp):
  def system_unmute(self):
    self.ws.emit(Message("enclosure.system.unmute"))
                                                                           self.ws.emit(Message("enclosure.weather.display",
                                                                                      {'img_code': img_code, 'temp': temp}))
  def system_blink(self, times):
    self.ws.emit(Message("enclosure.system.blink", {'times':
                                                                         def activate_mouth_events(self):
times}))
                                                                      self.ws.emit(Message('enclosure.mouth.events.activate'))
  def eyes_on(self):
    self.ws.emit(Message("enclosure.eyes.on"))
                                                                         def deactivate_mouth_events(self):
  def eyes_off(self):
                                                                      self.ws.emit(Message('enclosure.mouth.events.deactivate'))
    self.ws.emit(Message("enclosure.eyes.off"))
  def eyes_blink(self, side):
                                                                      Directory: intelora-
    self.ws.emit(Message("enclosure.eyes.blink", {'side':
                                                                      core/mycroft/client/enclore/arduino.py
side}))
                                                                      from mycroft.util.log import getLogger
  def eyes_narrow(self):
    self.ws.emit(Message("enclosure.eyes.narrow"))
                                                                       __author__ = 'jdorleans'
  def eyes_look(self, side):
                                                                      LOGGER = getLogger(__name__)
    self.ws.emit(Message("enclosure.eyes.look", {'side':
side}))
                                                                      class EnclosureArduino:
  def eyes_color(self, r=255, g=255, b=255):
    self.ws.emit(Message("enclosure.eyes.color",
                                                                         Listens to enclosure commands for Mycroft's Arduino.
               {'r': r, 'g': g, 'b': b}))
                                                                         Performs the associated command on Arduino by writing
  def eyes brightness(self, level=30):
                                                                      on the Serial port.
    self.ws.emit(Message("enclosure.eyes.level", {'level':
level}))
                                                                         def __init__(self, ws, writer):
  def eyes reset(self):
                                                                           self.ws = ws
    self.ws.emit(Message("enclosure.eyes.reset"))
                                                                           self.writer = writer
                                                                           self.__init_events()
  def eyes timed spin(self, length):
    self.ws.emit(Message("enclosure.eyes.timedspin",
                                                                         def __init_events(self):
               {'length': length}))
                                                                           self.ws.on('enclosure.system.reset', self.reset)
                                                                           self.ws.on('enclosure.system.mute', self.mute)
  def eyes_volume(self, volume):
                                                                           self.ws.on('enclosure.system.unmute', self.unmute)
    self.ws.emit(Message("enclosure.eyes.volume",
                                                                           self.ws.on('enclosure.system.blink', self.blink)
{'volume': volume}))
                                                                         def reset(self, event=None):
  def mouth_reset(self):
                                                                           self.writer.write("system.reset")
    self.ws.emit(Message("enclosure.mouth.reset"))
                                                                         def mute(self, event=None):
  def mouth talk(self):
                                                                           self.writer.write("system.mute")
    self.ws.emit(Message("enclosure.mouth.talk"))
                                                                         def unmute(self, event=None):
  def mouth_think(self):
                                                                           self.writer.write("system.unmute")
    self.ws.emit(Message("enclosure.mouth.think"))
                                                                         def blink(self, event=None):
  def mouth_listen(self):
                                                                           times = 1
    self.ws.emit(Message("enclosure.mouth.listen"))
                                                                           if event and event.data:
                                                                             times = event.data.get("times", times)
  def mouth smile(self):
                                                                           self.writer.write("system.blink=" + str(times))
    self.ws.emit(Message("enclosure.mouth.smile"))
                                                                      Directory: intelora-
  def mouth_viseme(self, code):
                                                                      core/mycroft/client/enclore/eyes.py
    self.ws.emit(Message("enclosure.mouth.viseme",
```

{'code': code}))

```
from mycroft.util.log import getLogger
                                                                            self.writer.write("eyes.level=" + str(level))
__author__ = 'jdorleans'
                                                                          def volume(self, event=None):
                                                                            volume = 4
                                                                            if event and event.data:
LOGGER = getLogger(__name__)
                                                                               volume = event.data.get("volume", volume)
                                                                            self.writer.write("eyes.volume=" + str(volume))
class EnclosureEyes:
                                                                          def reset(self, event=None):
  Listens to enclosure commands for Mycroft's Eyes.
                                                                            self.writer.write("eyes.reset")
  Performs the associated command on Arduino by writing
                                                                          def spin(self, event=None):
                                                                            self.writer.write("eyes.spin")
on the Serial port.
                                                                          def timed_spin(self, event=None):
  def __init__(self, ws, writer):
                                                                            length = 5000
    self.ws = ws
                                                                            if event and event.data:
    self.writer = writer
                                                                               length = event.data.get("length", length)
    self.__init_events()
                                                                            self.writer.write("eyes.spin=" + str(length))
  def init events(self):
                                                                        Directory: intelora-
    self.ws.on('enclosure.eyes.on', self.on)
                                                                        core/mycroft/client/enclore/main.py
    self.ws.on('enclosure.eyes.off', self.off)
    self.ws.on('enclosure.eyes.blink', self.blink)
                                                                        import sys
    self.ws.on('enclosure.eyes.narrow', self.narrow)
    self.ws.on('enclosure.eyes.look', self.look)
                                                                        from mycroft.client.enclosure import Enclosure
    self.ws.on('enclosure.eyes.color', self.color)
    self.ws.on('enclosure.eyes.level', self.brightness)
    self.ws.on('enclosure.eyes.volume', self.volume)
                                                                        def main():
    self.ws.on('enclosure.eyes.spin', self.spin)
                                                                          enclosure = Enclosure()
    self.ws.on('enclosure.eyes.timedspin', self.timed_spin)
                                                                          try:
    self.ws.on('enclosure.eyes.reset', self.reset)
                                                                            enclosure.run()
                                                                          except Exception as e:
  def on(self, event=None):
                                                                            print(e)
    self.writer.write("eyes.on")
                                                                          finally:
                                                                            sys.exit()
  def off(self, event=None):
    self.writer.write("eyes.off")
                                                                        if __name__ == "__main__":
  def blink(self, event=None):
                                                                          main()
    side = "b"
    if event and event.data:
                                                                        Directory: intelora-
      side = event.data.get("side", side)
                                                                        core/mycroft/client/enclore/mouth.py
    self.writer.write("eyes.blink=" + side)
  def narrow(self, event=None):
                                                                        from mycroft.util.log import getLogger
    self.writer.write("eyes.narrow")
                                                                        author = 'jdorleans'
  def look(self, event=None):
    if event and event.data:
                                                                        LOG = getLogger(__name__)
      side = event.data.get("side", "")
      self.writer.write("eyes.look=" + side)
                                                                        class EnclosureMouth:
  def color(self, event=None):
    r, g, b = 255, 255, 255
                                                                          Listens to enclosure commands for Mycroft's Mouth.
    if event and event.data:
      r = int(event.data.get("r"), r)
                                                                          Performs the associated command on Arduino by writing
      g = int(event.data.get("g"), g)
                                                                        on the Serial port.
      b = int(event.data.get("b"), b)
    color = (r * 65536) + (g * 256) + b
    self.writer.write("eyes.color=" + str(color))
                                                                          def __init__(self, ws, writer):
                                                                            self.ws = ws
  def brightness(self, event=None):
                                                                            self.writer = writer
    level = 30
                                                                            self.__init_events()
    if event and event.data:
      level = event.data.get("level", level)
                                                                          def __init_events(self):
```

```
self.ws.on('enclosure.mouth.reset', self.reset)
                                                                             temp = event.data.get("temp", None)
    self.ws.on('enclosure.mouth.talk', self.talk)
                                                                             if img_code is not None and temp is not None:
    self.ws.on('enclosure.mouth.think', self.think)
                                                                               msg = "weather.display=" + str(img_code) +
                                                                      str(temp)
    self.ws.on('enclosure.mouth.listen', self.listen)
    self.ws.on('enclosure.mouth.smile', self.smile)
                                                                               self.writer.write(msg)
    self.ws.on('enclosure.mouth.viseme', self.viseme)
    self.ws.on('enclosure.mouth.text', self.text)
                                                                      Directory: intelora-
                                                                      core/mycroft/client/speech/listener.py
  def reset(self, event=None):
    self.writer.write("mouth.reset")
                                                                      import time
                                                                      from Queue import Queue
  def talk(self, event=None):
                                                                      from threading import Thread
    self.writer.write("mouth.talk")
                                                                      import speech recognition as sr
  def think(self, event=None):
                                                                      from pyee import EventEmitter
    self.writer.write("mouth.think")
                                                                      from requests import HTTPError
  def listen(self, event=None):
                                                                      from mycroft.client.speech.local_recognizer import
    self.writer.write("mouth.listen")
                                                                      LocalRecognizer
                                                                      from mycroft.client.speech.mic import MutableMicrophone,
  def smile(self, event=None):
                                                                      ResponsiveRecognizer
    self.writer.write("mouth.smile")
                                                                      from mycroft.configuration import ConfigurationManager
                                                                      from mycroft.messagebus.message import Message
  def viseme(self, event=None):
                                                                      from mycroft.metrics import MetricsAggregator
    if event and event.data:
                                                                      from mycroft.session import SessionManager
      code = event.data.get("code")
                                                                      from mycroft.stt import STTFactory
      if code:
                                                                      from mycroft.util import connected
        self.writer.write("mouth.viseme=" + code)
                                                                      from mycroft.util.log import getLogger
  def text(self, event=None):
                                                                      LOG = getLogger(__name__)
    text = ""
    if event and event.data:
      text = event.data.get("text", text)
                                                                      class AudioProducer(Thread):
    self.writer.write("mouth.text=" + text)
                                                                         AudioProducer
Directory: intelora-
                                                                         given a mic and a recognizer implementation,
core/mycroft/client/enclore/weather.py
                                                                      continuously listens to the
                                                                         mic for potential speech chunks and pushes them onto
from mycroft.util.log import getLogger
                                                                      the queue.
__author__ = 'iward'
                                                                         def __init__(self, state, queue, mic, recognizer, emitter):
LOGGER = getLogger(__name__)
                                                                           super(AudioProducer, self).__init__()
                                                                           self.daemon = True
                                                                           self.state = state
class EnclosureWeather:
                                                                           self.queue = queue
                                                                           self.mic = mic
  Listens to enclosure commands to display indicators of the
                                                                           self.recognizer = recognizer
weather.
                                                                           self.emitter = emitter
  Performs the associated command on Arduino by writing
                                                                         def run(self):
                                                                           with self.mic as source:
on the Serial port.
                                                                             self.recognizer.adjust_for_ambient_noise(source)
                                                                             while self.state.running:
  def __init__(self, ws, writer):
    self.ws = ws
                                                                                 audio = self.recognizer.listen(source, self.emitter)
    self.writer = writer
                                                                                 self.queue.put(audio)
    self.__init_events()
                                                                                except IOError, ex:
                                                                                 # NOTE: Audio stack on raspi is slightly different,
  def init events(self):
                                                                      throws
    self.ws.on('enclosure.weather.display', self.display)
                                                                                 # IOError every other listen, almost like it can't
                                                                      handle
  def display(self, event=None):
                                                                                  # buffering audio between listen loops.
    if event and event.data:
                                                                                 # The internet was not helpful.
      img_code = event.data.get("img_code", None)
```

```
LOG.warn("Audio too short to be processed")
http://stackoverflow.com/questions/10733903/pyaudio-
                                                                            elif connected():
input-overflowed
                                                                              self.transcribe(audio)
          self.emitter.emit("recognizer loop:ioerror", ex)
                                                                                    _speak("Mycroft seems not to be connected to
                                                                              self._
                                                                       the Internet")
class AudioConsumer(Thread):
                                                                          def transcribe(self, audio):
  AudioConsumer
                                                                            text = None
  Consumes AudioData chunks off the queue
                                                                            try:
                                                                              text = self.stt.execute(audio).lower().strip()
                                                                              LOG.debug("STT: " + text)
  # In seconds, the minimum audio size to be sent to
                                                                            except sr.RequestError as e:
                                                                              LOG.error("Could not request Speech Recognition
remote STT
  MIN_AUDIO_SIZE = 0.5
                                                                       {0}".format(e))
                                                                            except HTTPError as e:
                                                                              if e.response.status_code == 401:
  def __init__(self, state, queue, emitter, stt,
         wakeup_recognizer, mycroft_recognizer):
                                                                                text = "pair my device"
    super(AudioConsumer, self).__init__()
                                                                                LOG.warn("Access Denied at mycroft.ai")
    self.daemon = True
                                                                            except Exception as e:
    self.queue = queue
                                                                              LOG.error(e)
    self.state = state
                                                                              LOG.error("Speech Recognition could not understand
    self.emitter = emitter
                                                                       audio")
                                                                              self.__speak("Sorry, I didn't catch that")
    self.stt = stt
    self.wakeup_recognizer = wakeup_recognizer
                                                                            if text:
    self.mycroft_recognizer = mycroft_recognizer
                                                                              payload = {
    self.metrics = MetricsAggregator()
                                                                                'utterances': [text],
                                                                                 'session': SessionManager.get().session_id
  def run(self):
    while self.state.running:
                                                                              self.emitter.emit("recognizer_loop:utterance",
      self.read()
                                                                       payload)
                                                                              self.metrics.attr('utterances', [text])
  def read(self):
                                                                          def __speak(self, utterance):
    audio = self.queue.get()
                                                                            payload = {
    if self.state.sleeping:
                                                                              'utterance': utterance,
      self.wake_up(audio)
                                                                              'session': SessionManager.get().session_id
    else:
                                                                            self.emitter.emit("speak", Message("speak", payload))
      self.process(audio)
  # TODO: Localization
  def wake_up(self, audio):
                                                                       class RecognizerLoopState(object):
                                                                          def __init__(self):
self.wakeup_recognizer.is_recognized(audio.frame_data,
                                                                            self.running = False
                          self.metrics):
                                                                            self.sleeping = False
      SessionManager.touch()
      self.state.sleeping = False
      self. speak("I'm awake.")
                                                                       class RecognizerLoop(EventEmitter):
      self.metrics.increment("mycroft.wakeup")
                                                                          def __init__(self):
                                                                            super(RecognizerLoop, self).__init__()
  @staticmethod
                                                                            config = ConfigurationManager.get()
  def audio length(audio):
                                                                            lang = config.get('lang')
    return float(len(audio.frame_data)) / (
                                                                            self.config = config.get('listener')
      audio.sample_rate * audio.sample_width)
                                                                            rate = self.config.get('sample_rate')
                                                                            device_index = self.config.get('device_index')
  # TODO: Localization
  def process(self, audio):
                                                                            self.microphone = MutableMicrophone(device_index,
    SessionManager.touch()
                                                                       rate)
    payload = {
                                                                            # FIXME - channels are not been used
      'utterance': self.mycroft_recognizer.key_phrase,
                                                                            self.microphone.CHANNELS = self.config.get('channels')
      'session': SessionManager.get().session_id,
                                                                            self.mycroft recognizer =
                                                                       self.create_mycroft_recognizer(rate, lang)
    self.emitter.emit("recognizer_loop:wakeword",
                                                                            # TODO - localization
                                                                            self.wakeup_recognizer =
payload)
                                                                       self.create_wakeup_recognizer(rate, lang)
```

if self._audio_length(audio) < self.MIN_AUDIO_SIZE:

```
self.remote recognizer =
                                                                       BASEDIR = dirname(abspath( file ))
ResponsiveRecognizer(self.mycroft_recognizer)
    self.state = RecognizerLoopState()
                                                                       class LocalRecognizer(object):
  def create_mycroft_recognizer(self, rate, lang):
                                                                         def __init__(self, key_phrase, phonemes, threshold,
                                                                       sample_rate=16000,
    wake_word = self.config.get('wake_word')
    phonemes = self.config.get('phonemes')
                                                                                lang="en-us"):
    threshold = self.config.get('threshold')
                                                                           self.lang = str(lang)
                                                                           self.key_phrase = str(key_phrase)
    return LocalRecognizer(wake_word, phonemes,
threshold, rate, lang)
                                                                           self.sample_rate = sample_rate
                                                                           self.threshold = threshold
  @staticmethod
                                                                           self.phonemes = phonemes
  def create_wakeup_recognizer(rate, lang):
                                                                           dict_name = self.create_dict(key_phrase, phonemes)
    return LocalRecognizer("wake up", "W EY K . AH P", 1e-
                                                                           self.decoder = Decoder(self.create_config(dict_name))
10, rate, lang)
                                                                         def create_dict(self, key_phrase, phonemes):
                                                                           (fd, file_name) = tempfile.mkstemp()
  def start_async(self):
    self.state.running = True
                                                                           words = key_phrase.split()
    queue = Queue()
                                                                           phoneme_groups = phonemes.split('.')
    AudioProducer(self.state, queue, self.microphone,
                                                                           with os.fdopen(fd, 'w') as f:
            self.remote recognizer, self).start()
                                                                             for word, phoneme in zip(words, phoneme groups):
    AudioConsumer(self.state, queue, self,
                                                                                f.write(word + ' ' + phoneme + '\n')
STTFactory.create(),
                                                                           return file_name
            self.wakeup_recognizer,
self.mycroft_recognizer).start()
                                                                         def create_config(self, dict_name):
                                                                           config = Decoder.default_config()
  def stop(self):
                                                                           config.set_string('-hmm', join(BASEDIR, 'model',
    self.state.running = False
                                                                       self.lang, 'hmm'))
                                                                           config.set_string('-dict', dict_name)
                                                                           config.set_string('-keyphrase', self.key_phrase)
  def mute(self):
                                                                           config.set_float('-kws_threshold', self.threshold)
    if self.microphone:
      self.microphone.mute()
                                                                           config.set_float('-samprate', self.sample_rate)
                                                                           config.set_int('-nfft', 2048)
  def unmute(self):
                                                                           config.set_string('-logfn', '/dev/null')
    if self.microphone:
                                                                           return config
      self.microphone.unmute()
                                                                         def transcribe(self, byte_data, metrics=None):
  def sleep(self):
                                                                           start = time.time()
    self.state.sleeping = True
                                                                           self.decoder.start utt()
                                                                           self.decoder.process_raw(byte_data, False, False)
  def awaken(self):
                                                                           self.decoder.end utt()
    self.state.sleeping = False
                                                                           if metrics:
                                                                             metrics.timer("mycroft.stt.local.time_s", time.time() -
  def run(self):
                                                                       start)
    self.start_async()
                                                                           return self.decoder.hyp()
    while self.state.running:
                                                                         def is_recognized(self, byte_data, metrics):
      try:
        time.sleep(1)
                                                                           hyp = self.transcribe(byte data, metrics)
      except KeyboardInterrupt as e:
                                                                           return hyp and self.key_phrase in hyp.hypstr.lower()
        LOG.error(e)
        self.stop()
                                                                         def found wake word(self, hypothesis):
                                                                           return hypothesis and self.key phrase in
Directory: intelora-
                                                                       hypothesis.hypstr.lower()
core/mycroft/client/speech/local_recognizer.p
                                                                       Directory: intelora-
                                                                       core/mycroft/client/speech/main.py
import os
import tempfile
                                                                       import re
import time
                                                                       import sys
from os.path import join, dirname, abspath
                                                                       from threading import Thread, Lock
```

from mycroft.client.enclosure.api import EnclosureAPI from mycroft.client.speech.listener import RecognizerLoop from mycroft.configuration import ConfigurationManager

from mycroft.identity import IdentityManager

from pocketsphinx import Decoder

__author__ = 'seanfitz, jdorleans'

```
from mycroft.messagebus.client.ws import WebsocketClient
from mycroft.messagebus.message import Message
from mycroft.tts import TTSFactory
                                                                    def handle_wake_up(event):
from mycroft.util import kill
                                                                      loop.awaken()
from mycroft.util.log import getLogger
logger = getLogger("SpeechClient")
                                                                    def handle stop(event):
                                                                      kill([config.get('tts').get('module')])
ws = None
tts = TTSFactory.create()
                                                                      kill(["aplay"])
lock = Lock()
loop = None
                                                                    def handle_paired(event):
config = ConfigurationManager.get()
                                                                      IdentityManager.update(event.data)
def handle_record_begin():
                                                                    def handle_open():
 logger.info("Begin Recording...")
                                                                      EnclosureAPI(ws).system_reset()
 ws.emit(Message('recognizer_loop:record_begin'))
                                                                    def connect():
def handle record end():
                                                                      ws.run_forever()
 logger.info("End Recording...")
 ws.emit(Message('recognizer_loop:record_end'))
                                                                    def main():
                                                                      global ws
def handle_wakeword(event):
                                                                      global loop
 logger.info("Wakeword Detected: " + event['utterance'])
                                                                      ws = WebsocketClient()
 ws.emit(Message('recognizer_loop:wakeword', event))
                                                                      tts.init(ws)
                                                                      ConfigurationManager.init(ws)
                                                                      loop = RecognizerLoop()
def handle_utterance(event):
                                                                      loop.on('recognizer_loop:utterance', handle_utterance)
  logger.info("Utterance: " + str(event['utterances']))
                                                                      loop.on('recognizer_loop:record_begin',
 ws.emit(Message('recognizer_loop:utterance', event))
                                                                    handle_record_begin)
                                                                      loop.on('recognizer loop:wakeword', handle wakeword)
                                                                      loop.on('recognizer loop:record end',
def mute_and_speak(utterance):
                                                                    handle_record_end)
 lock.acquire()
                                                                      loop.on('speak', handle_speak)
 ws.emit(Message("recognizer loop:audio output start"))
                                                                      ws.on('open', handle open)
                                                                      ws.on('speak', handle speak)
    logger.info("Speak: " + utterance)
    loop.mute()
                                                                         'multi utterance intent failure',
    tts.execute(utterance)
                                                                        handle_multi_utterance_intent_failure)
                                                                      ws.on('recognizer_loop:sleep', handle_sleep)
  finally:
    loop.unmute()
                                                                      ws.on('recognizer loop:wake up', handle wake up)
    lock.release()
                                                                      ws.on('mycroft.stop', handle_stop)
                                                                      ws.on("mycroft.paired", handle_paired)
ws.emit(Message("recognizer_loop:audio_output_end"))
                                                                      event thread = Thread(target=connect)
                                                                      event thread.setDaemon(True)
                                                                      event_thread.start()
def handle_multi_utterance_intent_failure(event):
  logger.info("Failed to find intent on multiple intents.")
                                                                      try:
 # TODO: Localize
                                                                        loop.run()
 mute_and_speak("Sorry, I didn't catch that. Please
                                                                      except KeyboardInterrupt, e:
                                                                        logger.exception(e)
rephrase your request.")
                                                                        event_thread.exit()
                                                                        sys.exit()
def handle_speak(event):
 utterance = event.data['utterance']
                                                                    if __name__ == "__main__":
 z]\.)(?<=\.|\?)\s', utterance)
                                                                      main()
 for chunk in chunks:
    mute_and_speak(chunk)
                                                                    Directory: intelora-
                                                                    core/mycroft/client/speech/mic.py
def handle_sleep(event):
                                                                    import audioop
```

loop.sleep()

```
import collections
                                                                        def stop stream(self):
from time import sleep
                                                                          return self.wrapped_stream.stop_stream()
import pyaudio
import speech_recognition
                                                                     class MutableMicrophone(Microphone):
from speech_recognition import (
                                                                        def __init__(self, device_index=None,
  Microphone.
                                                                     sample_rate=16000, chunk_size=1024):
  AudioSource,
                                                                          Microphone. init (
  AudioData
                                                                            self, device_index=device_index,
                                                                     sample_rate=sample_rate,
                                                                            chunk_size=chunk_size)
from mycroft.configuration import ConfigurationManager
                                                                          self.muted = False
from mycroft.util import check_for_signal
from mycroft.util.log import getLogger
                                                                        def __enter__(self):
from mycroft.util import play_wav
                                                                          assert self.stream is None, \
                                                                            "This audio source is already inside a context
listener_config = ConfigurationManager.get().get('listener')
                                                                     manager"
logger = getLogger(__name__)
                                                                          self.audio = pyaudio.PyAudio()
__author__ = 'seanfitz'
                                                                          self.stream = MutableStream(self.audio.open(
                                                                            input_device_index=self.device_index, channels=1,
                                                                            format=self.format, rate=self.SAMPLE RATE,
class MutableStream(object):
                                                                            frames_per_buffer=self.CHUNK,
  def __init__(self, wrapped_stream, format, muted=False):
                                                                            input=True, # stream is an input stream
    assert wrapped_stream is not None
                                                                          ), self.format, self.muted)
    self.wrapped_stream = wrapped_stream
                                                                          return self
    self.muted = muted
    self.SAMPLE_WIDTH =
                                                                        def __exit__(self, exc_type, exc_value, traceback):
pyaudio.get_sample_size(format)
                                                                          if not self.stream.is_stopped():
    self.muted_buffer = b".join([b'\x00' *
                                                                            self.stream.stop_stream()
self.SAMPLE_WIDTH])
                                                                          self.stream.close()
                                                                          self.stream = None
  def mute(self):
                                                                          self.audio.terminate()
    self.muted = True
                                                                        def mute(self):
  def unmute(self):
                                                                          self.muted = True
    self.muted = False
                                                                          if self.stream:
                                                                            self.stream.mute()
  def read(self, size):
    frames = collections.deque()
                                                                        def unmute(self):
                                                                          self.muted = False
    remaining = size
    while remaining > 0:
                                                                          if self.stream:
      to_read =
                                                                            self.stream.unmute()
min(self.wrapped_stream.get_read_available(), remaining)
      if to read == 0:
        sleep(.01)
        continue
                                                                      ResponsiveRecognizer(speech_recognition.Recognizer):
      result = self.wrapped_stream.read(to_read)
                                                                        # The maximum audio in seconds to keep for transcribing
      frames.append(result)
                                                                      a phrase
                                                                        # The wake word must fit in this time
      remaining -= to_read
                                                                        SAVED_WW_SEC = 1.0
    if self.muted:
                                                                        # Padding of silence when feeding to pocketsphinx
      return self.muted buffer
    input_latency =
                                                                        SILENCE_SEC = 0.01
self.wrapped_stream.get_input_latency()
    if input_latency > 0.2:
                                                                        # The minimum seconds of noise before a
      logger.warn("High input latency: %f" % input_latency)
                                                                        # phrase can be considered complete
    audio = b"".join(list(frames))
                                                                        MIN_LOUD_SEC_PER_PHRASE = 0.1
    return audio
                                                                        # The maximum length a phrase can be recorded,
  def close(self):
                                                                        # provided there is noise the entire time
    self.wrapped stream.close()
                                                                        RECORDING_TIMEOUT = 30.0
    self.wrapped_stream = None
                                                                        # The maximum time it will continue to record silence
  def is_stopped(self):
                                                                        # when not enough noise has been detected
    return self.wrapped_stream.is_stopped()
                                                                        RECORDING_TIMEOUT_WITH_SILENCE = 3.0
```

```
# Time between pocketsphinx checks for the wake word
                                                                        max chunks of silence =
 SEC BETWEEN WW CHECKS = 0.2
                                                                    int(self.RECORDING_TIMEOUT_WITH_SILENCE /
                                                                                       sec_per_buffer)
 def init (self, wake word recognizer):
    speech_recognition.Recognizer.__init__(self)
                                                                        # bytearray to store audio in
    self.wake_word_recognizer = wake_word_recognizer
                                                                        byte_data = '\0' * source.SAMPLE_WIDTH
    self.audio = pyaudio.PyAudio()
    self.multiplier = listener config.get('multiplier')
                                                                        phrase complete = False
    self.energy_ratio = listener_config.get('energy_ratio')
                                                                        while num_chunks < max_chunks and not
                                                                    phrase_complete:
  @staticmethod
                                                                          chunk = self.record_sound_chunk(source)
  def record_sound_chunk(source):
                                                                          byte_data += chunk
    return source.stream.read(source.CHUNK)
                                                                          num_chunks += 1
                                                                          energy = self.calc_energy(chunk,
  @staticmethod
 def calc_energy(sound_chunk, sample_width):
                                                                    source.SAMPLE_WIDTH)
                                                                          test_threshold = self.energy_threshold *
    return audioop.rms(sound_chunk, sample_width)
                                                                    self.multiplier
  def wake_word_in_audio(self, frame_data):
                                                                          is_loud = energy > test_threshold
                                                                          if is_loud:
    hyp =
self.wake_word_recognizer.transcribe(frame_data)
                                                                            noise = increase noise(noise)
                                                                             num_loud_chunks += 1
self.wake_word_recognizer.found_wake_word(hyp)
                                                                            noise = decrease_noise(noise)
  def record_phrase(self, source, sec_per_buffer):
                                                                             self.adjust_threshold(energy, sec_per_buffer)
    This attempts to record an entire spoken phrase.
                                                                          was_loud_enough = num_loud_chunks >
Essentially,
                                                                    min_loud_chunks
    this waits for a period of silence and then returns the
                                                                          quiet_enough = noise <= min_noise
audio
                                                                          recorded_too_much_silence = num_chunks >
                                                                    max_chunks_of_silence
    :rtype: bytearray
                                                                          if quiet_enough and (was_loud_enough or
    :param source: AudioSource
                                                                    recorded_too_much_silence):
    :param sec per buffer: Based on source.SAMPLE RATE
                                                                            phrase complete = True
    :return: bytearray representing the frame data of the
                                                                          if check for signal('buttonPress'):
recorded phrase
                                                                             phrase_complete = True
    num loud chunks = 0
                                                                        return byte data
    noise = 0
                                                                      @staticmethod
    max noise = 25
                                                                      def sec to bytes(sec, source):
    min_noise = 0
                                                                        return sec * source.SAMPLE_RATE *
                                                                    source.SAMPLE_WIDTH
    def increase noise(level):
      if level < max_noise:
                                                                      def wait_until_wake_word(self, source, sec_per_buffer):
        return level + 200 * sec_per_buffer
                                                                        num_silent_bytes = int(self.SILENCE_SEC *
      return level
                                                                    source.SAMPLE RATE *
                                                                                    source.SAMPLE WIDTH)
    def decrease_noise(level):
                                                                        silence = '\0' * num_silent_bytes
      if level > min_noise:
        return level - 100 * sec per buffer
      return level
                                                                        # bytearray to store audio in
                                                                        byte_data = silence
    # Smallest number of loud chunks required to return
                                                                        buffers_per_check = self.SEC_BETWEEN_WW_CHECKS /
    min loud chunks =
int(self.MIN_LOUD_SEC_PER_PHRASE / sec_per_buffer)
                                                                    sec_per_buffer
                                                                        buffers_since_check = 0.0
    # Maximum number of chunks to record before timing
out
                                                                        # Max bytes for byte_data before audio is removed
    max_chunks = int(self.RECORDING_TIMEOUT /
                                                                    from the front
sec_per_buffer)
                                                                        max_size = self.sec_to_bytes(self.SAVED_WW_SEC,
    num_chunks = 0
                                                                    source)
    # Will return if exceeded this even if there's not enough
                                                                        said_wake_word = False
loud chunks
                                                                        while not said_wake_word:
                                                                          if check_for_signal('buttonPress'):
```

```
said wake word = True
                                                                         return audio data
        continue
                                                                       def adjust_threshold(self, energy, seconds_per_buffer):
      chunk = self.record_sound_chunk(source)
                                                                         if self.dynamic energy threshold and energy > 0:
                                                                           # account for different chunk sizes and rates
      energy = self.calc_energy(chunk,
                                                                           damping = (
source.SAMPLE WIDTH)
                                                                             self.dynamic_energy_adjustment_damping **
      if energy < self.energy threshold * self.multiplier:
                                                                     seconds per buffer)
        self.adjust_threshold(energy, sec_per_buffer)
                                                                           target_energy = energy * self.energy_ratio
                                                                           self.energy_threshold = (
      needs_to_grow = len(byte_data) < max_size
                                                                             self.energy_threshold * damping +
      if needs_to_grow:
                                                                             target_energy * (1 - damping))
        byte_data += chunk
      else: # Remove beginning of audio and add new
                                                                     Directory: intelora-
                                                                     core/mycroft/client/speech/recognizer_warpp
        byte_data = byte_data[len(chunk):] + chunk
                                                                     er.py
      buffers_since_check += 1.0
                                                                     import json
      if buffers_since_check < buffers_per_check:
        buffers_since_check -= buffers_per_check
                                                                     import requests
        said wake word =
                                                                     from speech_recognition import UnknownValueError
self.wake_word_in_audio(byte_data + silence)
                                                                     from mycroft.configuration import ConfigurationManager
  @staticmethod
                                                                     from mycroft.identity import IdentityManager
  def create_audio_data(raw_data, source):
                                                                     from mycroft.metrics import Stopwatch
                                                                     from mycroft.util import CerberusAccessDenied
    Constructs an AudioData instance with the same
                                                                     from mycroft.util.log import getLogger
                                                                     from mycroft.util.setup_base import get_version
    as the source and the specified frame_data
                                                                     __author__ = 'seanfitz'
    return AudioData(raw_data, source.SAMPLE_RATE,
source.SAMPLE_WIDTH)
                                                                     log = getLogger("RecognizerWrapper")
  def listen(self, source, emitter):
                                                                     config = ConfigurationManager.get().get('speech_client')
    Listens for audio that Mycroft should respond to
                                                                     class GoogleRecognizerWrapper(object):
    :param source: an "AudioSource" instance for reading
                                                                       def __init__(self, recognizer):
from
                                                                         self.recognizer = recognizer
    :param emitter: a pyee EventEmitter for sending when
the wakeword
                                                                       def transcribe(
            has been found
                                                                           self, audio, language="en-US", show_all=False,
                                                                     metrics=None):
    assert isinstance(source, AudioSource), "Source must be
                                                                         key = config.get('goog api key')
an AudioSource"
                                                                         return self.recognizer.recognize_google(
                                                                           audio, key=key, language=language,
    bytes per sec = source.SAMPLE RATE *
                                                                     show_all=show_all)
source.SAMPLE WIDTH
    sec_per_buffer = float(source.CHUNK) / bytes_per_sec
                                                                     class WitRecognizerWrapper(object):
    logger.debug("Waiting for wake word...")
                                                                       def __init__(self, recognizer):
    self.wait_until_wake_word(source, sec_per_buffer)
                                                                         self.recognizer = recognizer
    play_wav('/tmp/beep_hi.wav')
                                                                       def transcribe(
    logger.debug("Listening...")
                                                                           self, audio, language="en-US", show_all=False,
                                                                     metrics=None):
    emitter.emit("recognizer_loop:record_begin")
                                                                         assert language == "en-US", \
    frame_data = self.record_phrase(source,
                                                                           "language must be default, language parameter not
sec_per_buffer)
                                                                     supported.'
    audio_data = self.create_audio_data(frame_data,
                                                                         key = config.get('wit_api_key')
source)
                                                                         return self.recognizer.recognize_wit(audio, key,
    emitter.emit("recognizer_loop:record_end")
                                                                     show_all=show_all)
    play_wav('/tmp/beep_lo.wav')
    logger.debug("Thinking...")
                                                                     class IBMRecognizerWrapper(object):
```

```
def init (self, recognizer):
                                                                            for entry in alternatives:
    self.recognizer = recognizer
                                                                              if "transcript" in entry:
                                                                                return entry["transcript"]
  def transcribe(
      self, audio, language="en-US", show_all=False,
                                                                            if len(alternatives) > 0:
metrics=None):
                                                                              log.error(
                                                                                "Found %d entries, but none with a transcript." %
    username = config.get('ibm_username')
    password = config.get('ibm password')
                                                                       len(
    return self.recognizer.recognize_ibm(
                                                                                  alternatives))
      audio, username, password, language=language,
show_all=show_all)
                                                                            # no transcriptions available
                                                                            raise UnknownValueError()
class CerberusGoogleProxy(object):
  def __init__(self, _):
                                                                       RECOGNIZER_IMPLS = {
                                                                          'google': GoogleRecognizerWrapper,
    self.version = get_version()
                                                                          'google_proxy': CerberusGoogleProxy,
  def transcribe(
                                                                          'wit': WitRecognizerWrapper,
      self, audio, language="en-US", show_all=False,
                                                                         'ibm': IBMRecognizerWrapper
metrics=None):
    timer = Stopwatch()
    timer.start()
    identity = IdentityManager().get()
                                                                       class RemoteRecognizerWrapperFactory(object):
    headers = {}
                                                                          @staticmethod
    if identity.token:
                                                                          def wrap_recognizer(recognizer,
      headers['Authorization'] = 'Bearer %s:%s' % (
                                                                       impl=config.get('recognizer_impl')):
                                                                            if impl not in RECOGNIZER_IMPLS.keys():
        identity.device_id, identity.token)
                                                                              raise NotImplementedError("%s recognizer not
    response = requests.post(config.get("proxy_host") +
                                                                       implemented." % impl)
"/stt/google_v2?language=%s&version=%s"
                                                                            impl_class = RECOGNIZER_IMPLS.get(impl)
                  % (language, self.version),
                                                                            return impl_class(recognizer)
                  audio.get_flac_data(),
                  headers=headers)
                                                                       Directory: intelora-
                                                                       core/mycroft/client/speech/word_extractor.py
    if metrics:
      t = timer.stop()
                                                                       from speech_recognition import AudioData
      metrics.timer("mycroft.cerberus.proxy.client.time s",
t)
                                                                        __author__ = 'jdorleans'
      metrics.timer("mycroft.stt.remote.time_s", t)
    if response.status_code == 401:
                                                                       class WordExtractor:
      raise CerberusAccessDenied()
                                                                         SILENCE SECS = 0.1
                                                                         PRECISION_RATE = 0.01
    try:
      actual_result = response.json()
                                                                         def __init__(self, audio, recognizer, metrics):
    excent:
                                                                            self.audio = audio
      raise UnknownValueError()
                                                                            self.recognizer = recognizer
                                                                            self.audio_size = len(self.audio.frame_data)
    log.info("STT JSON: " + json.dumps(actual_result))
                                                                            self.delta = int(self.audio_size / 2)
    if show all:
                                                                            self.begin = 0
      return actual_result
                                                                            self.end = self.audio size
                                                                            self.precision = int(self.audio_size *
    # return the best guess
                                                                       self.PRECISION RATE)
    if "alternative" not in actual_result:
                                                                            self.silence_data =
      raise UnknownValueError()
                                                                       self.create_silence(self.SILENCE_SECS,
    alternatives = actual_result["alternative"]
                                                                                                  self.audio.sample_rate,
    if len([alt for alt in alternatives if alt.get('confidence')]) >
                                                                                                  self.audio.sample_width)
0:
                                                                            self.metrics = metrics
      # if there is at least one element with confidence,
force it to
                                                                         def add(self, is begin, value):
      # the front
                                                                            if is_begin:
      alternatives.sort(
                                                                              self.begin += value
        key=lambda e: e.get('confidence', 0.0),
reverse=True)
                                                                              self.end += value
```

```
def __calculate_marker(self, is_begin):
                                                                      def connect():
    dt = self.delta
                                                                        client.run_forever()
    sign = 1 if is begin else -1
    while dt > self.precision:
                                                                      def main():
      self. add(is begin, dt * sign)
                                                                        global client
      segment = self.audio.frame data[self.begin:self.end]
                                                                        client = WebsocketClient()
      found = self.recognizer.is_recognized(segment,
                                                                        if '--quiet' not in sys.argv:
self.metrics)
                                                                          client.on('speak', handle_speak)
      if not found:
                                                                        event_thread = Thread(target=connect)
        self.__add(is_begin, dt * -sign)
                                                                        event_thread.setDaemon(True)
      dt = int(dt / 2)
                                                                        event_thread.start()
                                                                        try:
  def calculate_range(self):
                                                                          while True:
    self.__calculate_marker(False)
                                                                             print("Input:")
    self.__calculate_marker(True)
                                                                             line = sys.stdin.readline()
                                                                             client.emit(
  @staticmethod
                                                                               Message("recognizer_loop:utterance",
  def create_silence(seconds, sample_rate, sample_width):
                                                                                   metadata={'utterances': [line.strip()]}))
    return '\0' * int(seconds * sample_rate * sample_width)
                                                                        except KeyboardInterrupt, e:
                                                                          logger.exception(e)
  def get_audio_data_before(self):
                                                                          event_thread.exit()
    byte_data = self.audio.frame_data[0:self.begin] +
                                                                          sys.exit()
self.silence_data
    return AudioData(byte_data, self.audio.sample_rate,
             self.audio.sample_width)
                                                                      if __name__ == "__main__":
                                                                        main()
  def get_audio_data_after(self):
    byte_data = self.silence_data +
                                                                      Directory: intelora-
self.audio.frame_data[self.end:
                                                                      core/mycroft/client/text/main.py
                                 self.audio_size]
    return AudioData(byte_data, self.audio.sample_rate,
                                                                      import sys
             self.audio.sample_width)
                                                                      from threading import Thread, Lock
Directory: intelora-
                                                                      from mycroft.messagebus.client.ws import WebsocketClient
core/mycroft/client/text/cli.py
                                                                      from mycroft.messagebus.message import Message
                                                                      from mycroft.tts import TTSFactory
import sys
                                                                      from mycroft.util.log import getLogger
from threading import Thread, Lock
                                                                      tts = TTSFactory.create()
from mycroft.messagebus.client.ws import WebsocketClient
                                                                      ws = None
from mycroft.messagebus.message import Message
                                                                      mutex = Lock()
from mycroft.tts import tts_factory
                                                                      logger = getLogger("CLIClient")
from mycroft.util.log import getLogger
tts = tts_factory.create()
                                                                      def handle_speak(event):
client = None
                                                                        mutex.acquire()
mutex = Lock()
                                                                        ws.emit(Message("recognizer_loop:audio_output_start"))
logger = getLogger("CLIClient")
                                                                          utterance = event.data.get('utterance')
                                                                          logger.info("Speak: " + utterance)
def handle_speak(event):
                                                                          tts.execute(utterance)
  mutex.acquire()
                                                                          mutex.release()
client.emit(Message("recognizer_loop:audio_output_start"))
                                                                      ws.emit(Message("recognizer loop:audio output end"))
    utterance = event.metadata.get('utterance')
    logger.info("Speak: " + utterance)
    tts.execute(utterance)
                                                                      def connect():
  finally:
                                                                        ws.run_forever()
    mutex.release()
client.emit(Message("recognizer loop:audio output end"))
                                                                      def main():
                                                                        global ws
```

```
def cli(*args):
  ws = WebsocketClient()
  tts.init(ws)
                                                                        "Invoke a command line, then log and return result "
                                                                        LOG.info("Command: %s" % list(args))
  if '--quiet' not in sys.argv:
    ws.on('speak', handle speak)
                                                                        proc = Popen(args=args, stdout=PIPE, stderr=PIPE)
  event_thread = Thread(target=connect)
                                                                        stdout, stderr = proc.communicate()
  event_thread.setDaemon(True)
                                                                        result = {'code': proc.returncode, 'stdout': stdout, 'stderr':
  event_thread.start()
                                                                      stderr}
                                                                        LOG.info("Command result: %s" % result)
  try:
    while True:
                                                                        return result
      print("Input:")
      line = sys.stdin.readline()
                                                                      def wpa(*args):
        Message("recognizer_loop:utterance",
                                                                        idx = 0
            {'utterances': [line.strip()]}))
                                                                        result = cli('wpa_cli', '-i', *args)
  except KeyboardInterrupt, e:
                                                                        out = result.get("stdout", "\n")
    logger.exception(e)
                                                                        if "interface" in out:
    event_thread.exit()
                                                                          idx = 1
    sys.exit()
                                                                        return str(out.split("\n")[idx])
if __name__ == "__main__":
                                                                      def sysctrl(*args):
  main()
                                                                        return cli('systemctl', *args)
Directory: intelora-
core/mycroft/client/wifisetup/main.py
                                                                      CaptiveHTTPRequestHandler(SimpleHTTPRequestHandler):
                                                                        "Serve a single website, 303 redirecting all other
import os
                                                                      requests to it "
import sys
import threading
                                                                        def do HEAD(self):
import time
                                                                          LOG.info("do_HEAD being called....")
import traceback
                                                                          if not self.redirect():
from \ Simple HTTP Server \ import \ Simple HTTP Request Handler
                                                                            SimpleHTTPRequestHandler.do_HEAD(self)
from SocketServer import TCPServer
from os.path import dirname, realpath
                                                                        def do GET(self):
from shutil import copyfile
                                                                          LOG.info("do_GET being called....")
from subprocess import Popen, PIPE
                                                                          if not self.redirect():
from threading import Thread
                                                                            SimpleHTTPRequestHandler.do GET(self)
from time import sleep
                                                                        def redirect(self):
from pyric import pyw
                                                                          try:
                                                                            LOG.info("*****************")
from wifi import Cell
                                                                            LOG.info("** HTTP Request ***")
from mycroft.client.enclosure.api import EnclosureAPI
                                                                            LOG.info("**************")
from mycroft.configuration import ConfigurationManager
                                                                            LOG.info("Requesting: " + self.path)
from mycroft.messagebus.client.ws import WebsocketClient
                                                                            LOG.info("REMOTE_ADDR:" + self.client_address[0])
from mycroft.messagebus.message import Message
                                                                            LOG.info("SERVER NAME:" +
from mycroft.util import connected
                                                                      self.server.server address[0])
from mycroft.util.log import getLogger
                                                                            LOG.info("SERVER_PORT:" +
                                                                      str(self.server.server_address[1]))
author = 'aatchison and penrods'
                                                                            LOG.info("SERVER PROTOCOL:" +
                                                                      self.request_version)
LOG = getLogger("WiFiClient")
                                                                            LOG.info("HEADERS...")
                                                                            LOG.info(self.headers)
SCRIPT DIR = dirname(realpath( file ))
                                                                            LOG.info("***************")
                                                                            # path = self.translate_path(self.path)
def cli no output(*args):
                                                                            if "mycroft.ai" in self.headers['host']:
  "Invoke a command line and return result "
                                                                              LOG.info("No redirect")
  LOG.info("Command: %s" % list(args))
                                                                              return False
  proc = Popen(args=args, stdout=PIPE, stderr=PIPE)
                                                                            else:
  stdout, stderr = proc.communicate()
                                                                              LOG.info("303 redirect to http://start.mycroft.ai")
  return {'code': proc.returncode, 'stdout': stdout, 'stderr':
                                                                              self.send_response(303)
stderr}
                                                                              self.send_header("Location",
                                                                      "http://start.mycroft.ai")
                                                                              self.end_headers()
```

```
return True
    except:
                                                                           def down(self):
      tb = traceback.format exc()
                                                                             sysctrl('stop', 'dnsmasq.service')
      LOG.info("exception caught")
                                                                             sysctrl('disable', 'dnsmasq.service')
      LOG.info(tb)
                                                                             wpa(self.wiface, 'p2p_group_remove', self.iface)
      return False
                                                                             copyfile('/tmp/dnsmasq-bk.conf', '/etc/dnsmasq.conf')
                                                                           def save(self):
class WebServer(Thread):
                                                                             data = {
  " Web server for devices connected to the temporary
                                                                                "interface": self.iface,
access point "
                                                                                "server": self.ip,
                                                                                "dhcp_range_start": self.ip_start,
  def __init__(self, host, port):
                                                                                "dhcp_range_end": self.ip_end
    super(WebServer, self).__init__()
    self.daemon = True
                                                                             try:
    LOG.info("Creating TCPServer...")
                                                                               LOG.info("Writing to: /etc/dnsmasq.conf")
    self.server = TCPServer((host, port),
                                                                               with open('/etc/dnsmasq.conf', 'w') as f:
CaptiveHTTPRequestHandler)
                                                                                  f.write(self.template.format(**data))
    LOG.info("Created TCPServer")
                                                                             except Exception as e:
                                                                               LOG.error("Fail to write: /etc/dnsmasq.conf")
  def run(self):
                                                                               raise e
    LOG.info("Starting Web Server at %s:%s" %
self.server.server_address)
    LOG.info("Serving from: %s" % os.path.join(SCRIPT_DIR,
                                                                         class WiFi:
                                                                           def __init__(self):
    os.chdir(os.path.join(SCRIPT_DIR, 'web'))
                                                                             self.iface = pyw.winterfaces()[0]
                                                                             self.ap = AccessPoint(self.iface)
    self.server.serve_forever()
    LOG.info("Web Server stopped!")
                                                                             self.server = None
                                                                             self.ws = WebsocketClient()
                                                                             ConfigurationManager.init(self.ws)
                                                                             self.enclosure = EnclosureAPI(self.ws)
class AccessPoint:
  template = """interface={interface}
                                                                             self.init_events()
                                                                             self.conn_monitor = None
bind-interfaces
                                                                             self.conn_monitor_stop = threading.Event()
server={server}
domain-needed
bogus-priv
                                                                           def init_events(self):
dhcp-range={dhcp_range_start}, {dhcp_range_end}, 12h
address=/#/{server}
                                                                               Register handlers for various websocket events used
                                                                               to communicate with outside systems.
  def __init__(self, wiface):
    self.wiface = wiface
                                                                             # This event is generated by an outside mechanism. On
    self.iface = 'p2p-wlan0-0'
    self.subnet = '172.24.1'
                                                                             # Holmes unit this comes from the Enclosure's menu
    self.ip = self.subnet + '.1'
                                                                         item
    self.ip_start = self.subnet + '.50'
                                                                             # being selected.
    self.ip end = self.subnet + '.150'
                                                                             self.ws.on('mycroft.wifi.start', self.start)
    self.password = None
                                                                             # These events are generated by Javascript in the
  def up(self):
                                                                         captive
    try:
      card = pyw.getcard(self.iface)
                                                                             self.ws.on('mycroft.wifi.stop', self.stop)
                                                                             self.ws.on('mycroft.wifi.scan', self.scan)
                                                                             self.ws.on('mycroft.wifi.connect', self.connect)
      wpa(self.wiface, 'p2p_group_add', 'persistent=0')
      self.iface = self.get_iface()
      self.password = wpa(self.iface, 'p2p_get_passphrase')
                                                                           def start(self, event=None):
      card = pyw.getcard(self.iface)
    pyw.inetset(card, self.ip)
                                                                               Fire up the MYCROFT access point for the user to
    copyfile('/etc/dnsmasq.conf', '/tmp/dnsmasq-bk.conf')
                                                                         connect to
    self.save()
                                                                              with a phone or computer.
    sysctrl('restart', 'dnsmasq.service')
                                                                             LOG.info("Starting access point...")
  def get_iface(self):
    for iface in pyw.winterfaces():
                                                                             # Fire up our access point
      if "p2p" in iface:
                                                                             self.ap.up()
                                                                             if not self.server:
         return iface
```

```
LOG.info("Creating web server...")
                                                                           while not self.conn monitor stop.isSet():
      self.server = WebServer(self.ap.ip, 80)
                                                                             # do our monitoring...
      LOG.info("Starting web server...")
                                                                             mtime =
      self.server.start()
                                                                       os.path.getmtime('/var/lib/misc/dnsmasq.leases')
      LOG.info("Created web server.")
                                                                             if mtimeLast != mtime:
                                                                                # Something changed in the dnsmasq lease file -
    LOG.info("Access point started!\n%s" %
                                                                                # presumably a (re)new lease
self.ap. dict )
                                                                                bHasConnected = True
    self._start_connection_monitor()
                                                                                cARPFailures = 0
                                                                               mtimeLast = mtime
  def _connection_prompt(self, prefix):
                                                                               timeStarted = time.time() # reset start time after
    # let the user know to connect to it...
                                                                       connection
    passwordSpelled = ", ".join(self.ap.password)
                                                                                timeLastAnnounced = time.time() - 45 # announce
    self._speak_and_show(
                                                                       how to connect
      prefix + " Use your mobile device or computer to "
           "connect to the wifi network "
                                                                             if time.time() - timeStarted > 60 * 5:
           "'MYCROFT'; Then enter the uppercase "
                                                                               # After 5 minutes, shut down the access point
           "password" + passwordSpelled,
                                                                               LOG.info("Auto-shutdown of access point after 5
      self.ap.password)
                                                                       minutes")
                                                                               self.stop()
  def speak and show(self, speak, show):
                                                                               continue
    "Communicate with the user throughout the process "
    self.ws.emit(Message("speak", {'utterance': speak}))
                                                                             if time.time() - timeLastAnnounced >= 45:
    if show is None:
                                                                                if bHasConnected:
      return
                                                                                  self._speak_and_show(
                                                                                    "Now you can open your browser and go to
    # TODO: This sleep should not be necessary, but
                                                                       start dot "
without it the
                                                                                    "mycroft dot A I, then follow the instructions
         text to be displayed by enclosure.mouth_text()
                                                                       given "
                                                                                    " there".
gets
    #
         wiped out immediately when the utterance above
                                                                                    "start.mycroft.ai")
                                                                                  self._connection_prompt("Allow me to walk you
    #
         begins processing.
         Remove the sleep once this behavior is corrected.
                                                                       through the "
                                                                                               " wifi setup process; ")
    self.enclosure.mouth_text(show)
                                                                               timeLastAnnounced = time.time()
  def start connection monitor(self):
                                                                             if bHasConnected:
    LOG.info("Starting monitor thread...\n")
                                                                                # Flush the ARP entries associated with our access
    if self.conn monitor is not None:
                                                                       point
      LOG.info("Killing old thread...\n")
                                                                                # This will require all network hardware to re-
      self.conn_monitor_stop.set()
                                                                       register
                                                                               # with the ARP tables if still present.
      self.conn_monitor_stop.wait()
                                                                               if cARPFailures == 0:
    self.conn_monitor = threading.Thread(
                                                                                  res = cli_no_output('ip', '-s', '-s', 'neigh', 'flush',
      target=self._do_connection_monitor,
                                                                                             self.ap.subnet + '.0/24')
      args={})
                                                                                  # Give ARP system time to re-register hardware
    self.conn monitor.daemon = True
                                                                                  sleep(5)
    self.conn_monitor.start()
    LOG.info("Monitor thread setup complete.\n")
                                                                                # now look at the hardware that has responded, if
                                                                       no entry
  def _stop_connection_monitor(self):
                                                                               # shows up on our access point after 2*5=10
    "Set flag that will let monitoring thread close "
                                                                       seconds, the user
    self.conn_monitor_stop.set()
                                                                                # has disconnected
                                                                                if not self._is_ARP_filled():
  def _do_connection_monitor(self):
                                                                                  cARPFailures += 1
    LOG.info("Invoked monitor thread...\n")
                                                                                  if cARPFailures > 2:
                                                                                    self._connection_prompt("Connection lost,")
    mtimeLast =
os.path.getmtime('/var/lib/misc/dnsmasq.leases')
                                                                                    bHasConnected = False
    bHasConnected = False
                                                                                else:
    cARPFailures = 0
                                                                                  cARPFailures = 0
    timeStarted = time.time()
                                                                             sleep(5) # wait a bit to prevent thread from hogging
                                                                      CPU
    timeLastAnnounced = 0 # force first announcement to
now
    self.conn_monitor_stop.clear()
                                                                           LOG.info("Exiting monitor thread...\n")
                                                                           self.conn_monitor_stop.clear()
```

```
wpa(self.iface, 'set_network', nid, 'psk', psk)
  def_is_ARP_filled(self):
    res = cli_no_output('/usr/sbin/arp', '-n')
                                                                                     wpa(self.iface, 'set_network', nid, 'key_mgmt',
                                                                          'NONE')
    out = str(res.get("stdout"))
    if out:
      # Parse output, skipping header
                                                                                   wpa(self.iface, 'enable', nid)
      for o in out.split("\n")[1:]:
                                                                                   connected = self.get_connected(ssid)
         if o[0:len(self.ap.subnet)] == self.ap.subnet:
                                                                                   if connected:
           if "(incomplete)" in o:
                                                                                     wpa(self.iface, 'save_config')
             # ping the IP to get the ARP table entry
reloaded
                                                                                 self.ws.emit(Message("mycroft.wifi.connected",
             ip_disconnected = o.split(" ")[0]
                                                                                             {'connected': connected}))
             cli_no_output('/bin/ping', '-c', '1', '-W', 3,
                                                                                 LOG.info("Connection status for %s = %s" % (ssid,
                     ip_disconnected)
                                                                          connected))
             return True # something on subnet is
                                                                                 if connected:
connected!
                                                                                   self.ws.emit(Message("speak", {
    return False
                                                                                     'utterance': "Thank you, I'm now connected to
                                                                          the "
  def scan(self, event=None):
                                                                                             "internet and ready for use"}))
    LOG.info("Scanning wifi connections...")
                                                                                   # TODO: emit something that triggers a pairing
    networks = {}
                                                                          check
    status = self.get_status()
                                                                            def disconnect(self):
    for cell in Cell.all(self.iface):
                                                                              status = self.get_status()
      update = True
                                                                              nid = status.get("id")
      ssid = cell.ssid
                                                                              if nid:
      quality = self.get_quality(cell.quality)
                                                                                 ssid = status.get("ssid")
                                                                                 wpa(self.iface, 'disable', nid)
                                                                                 LOG.info("Disconnecting %s id: %s" % (ssid, nid))
      # If there are duplicate network IDs (e.g. repeaters)
only
      # report the strongest signal
                                                                            def get_status(self):
                                                                              res = cli('wpa_cli', '-i', self.iface, 'status')
      if networks.__contains__(ssid):
         update = networks.get(ssid).get("quality") < quality
                                                                              out = str(res.get("stdout"))
      if update and ssid:
         networks[ssid] = {
                                                                                 return dict(o.split("=") for o in out.split("\n")[:-1])
           'quality': quality,
                                                                              return {}
           'encrypted': cell.encrypted,
           'connected': self.is_connected(ssid, status)
                                                                            def get connected(self, ssid, retry=5):
                                                                              connected = self.is_connected(ssid)
    self.ws.emit(Message("mycroft.wifi.scanned",
                                                                              while not connected and retry > 0:
                {'networks': networks}))
                                                                                 sleep(2)
    LOG.info("Wifi connections scanned!\n%s" % networks)
                                                                                 retry -= 1
                                                                                 connected = self.is connected(ssid)
  @staticmethod
                                                                              return connected
  def get_quality(quality):
    values = quality.split("/")
                                                                            def is_connected(self, ssid, status=None):
    return float(values[0]) / float(values[1])
                                                                              status = status or self.get status()
                                                                              state = status.get("wpa_state")
  def connect(self, event=None):
                                                                              return status.get("ssid") == ssid and state ==
    if event and event.data:
                                                                          "COMPLETED"
      ssid = event.data.get("ssid")
      connected = self.is_connected(ssid)
                                                                            def stop(self, event=None):
                                                                              LOG.info("Stopping access point...")
                                                                              self._stop_connection_monitor()
         LOG.warn("Mycroft is already connected to %s" %
                                                                              self.ap.down()
ssid)
                                                                              if self.server:
      else:
                                                                                 self.server.server.shutdown()
         self.disconnect()
                                                                                 self.server.server_close()
         LOG.info("Connecting to: %s" % ssid)
                                                                                 self.server.join()
         nid = wpa(self.iface, 'add network')
                                                                                 self.server = None
         wpa(self.iface, 'set_network', nid, 'ssid', '"' + ssid +
                                                                              LOG.info("Access point stopped!")
'''')
                                                                            def _do_net_check(self):
         if event.data.__contains__("pass"):
                                                                              # give system 5 seconds to resolve network or get
           psk = "" + event.data.get("pass") + ""
                                                                          plugged in
```

```
sleep(5)
                                                                        /* A bug in Safari (as of 10-10-2016) breaks password input
    LOG.info("Checking internet connection again")
                                                                        when
    if not connected() and self.conn monitor is None:
                                                                          user-select:none is used. This prevents that bug by
      # TODO: Enclosure/localization
                                                                        allowing
      self._speak_and_show(
                                                                          text selection for all input fields (which is probably
         "This device is not connected to the Internet. Either
                                                                        expected
plug '
                                                                          by users anyway). */
         "in a network cable or hold the button on top for
                                                                        input {
two "
                                                                          user-select: text;
         "seconds, then select wifi from the menu", None)
                                                                          -moz-user-select: text;
                                                                           -webkit-user-select: text;
  def run(self):
                                                                          -ms-user-select: text;
      # When the system first boots up, check for a valid
internet
                                                                        .panel {
      # connection.
                                                                          border-radius: 15px;
      LOG.info("Checking internet connection")
                                                                          box-shadow: 0 0 10px #AAA;
      if not connected():
                                                                          max-width: 500px;
        LOG.info("No connection initially, waiting 20...")
                                                                          min-width: 300px;
        self.net check = threading.Thread(
           target=self._do_net_check,
                                                                        .panel .title {
          args={})
         self.net_check.daemon = True
                                                                          background: #2b3344;
         self.net_check.start()
                                                                          border-top-left-radius: 15px;
      else:
                                                                          border-top-right-radius: 15px;
         LOG.info("Connection found!")
                                                                          padding: 30px 20px;
                                                                          text-align: center;
      self.ws.run_forever()
                                                                          color: #FFF;
    except Exception as e:
                                                                          font-weight: bold;
      LOG.error("Error: {0}".format(e))
                                                                          font-size: 20px;
      self.stop()
                                                                        .panel .body {
def main():
                                                                          min-height: 520px;
  wifi = WiFi()
                                                                          display: table;
                                                                          list-style: none;
  try:
    wifi.run()
                                                                          padding: 0;
  except Exception as e:
                                                                          margin: 0;
    print (e)
                                                                          width: 100%;
  finally:
    sys.exit()
                                                                        .panel .body li {
                                                                          width: 100%;
if __name__ == "__main__":
                                                                          display: table;
  main()
                                                                          border-bottom: 1px solid #DDD;
                                                                          padding: 10px;
                                                                          box-sizing: border-box;
Directory: intelora-
                                                                          cursor: pointer;
core/mycroft/client/wifisetup/web/css/style.c
                                                                          height: 61px;
                                                                          overflow: hidden;
  font-family: sans-serif;
                                                                        .panel .body li div {
  user-select: none;
                                                                          width: 100%;
  -moz-user-select: none;
                                                                          height: 40px;
  -webkit-user-select: text:
                                                                          transition: 500ms;
  -ms-user-select: none;
                                                                          display: none;
/* Prevent ridiculously long network names from screwing
                                                                        .panel .body li div.show {
up the layout
                                                                          transition: 500ms;
 by forcing them to wrap. */
                                                                          display: table;
.ssid {
  max-width: 280px;
                                                                        .panel .body li span {
```

```
float: left;
  font-size: 18px;
                                                                         #success span img {
  margin: 9px 0;
                                                                            position: relative;
  width: calc(100% - 60px);
                                                                            top: 4px;
  text-overflow: ellipsis;
  word-wrap: break-word;
                                                                         #success small {
                                                                            text-align: left;
.panel .body li img {
                                                                            width: 80%;
  width: 40px;
                                                                            margin: 35px auto;
  float: right;
                                                                            font-size: 18px;
                                                                            display: table;
                                                                            color: #777;
.panel .body li img.lock {
  width: 11px;
  position: relative;
                                                                         div.connected span {
                                                                            padding: 0 !important;
  right: 0;
  bottom: 0;
                                                                            margin: 0 !important;
  top: 24px;
 left: 40px;
                                                                         div.connected span:not(.connected) {
                                                                            color: #488fe2;
.panel .body li .connect-item img, .panel .body li .error-item
img {
  width: 20px;
                                                                         div.connected .lock {
  height: 20px;
                                                                            top: 3px !important;
  padding: 10px;
                                                                         span.connected {
.panel .body li .connect-item label {
                                                                            display: table;
  color: #488fe2;
                                                                            margin: 0 !important;
  padding: 9.5px 10px 9.5px 0;
                                                                            padding: 0 !important;
  display: table;
                                                                            font-size: 14px !important;
  float: left:
                                                                            color: #777;
  font-size: 18px;
  width: 80px;
                                                                          .backButton {
  text-align: left;
                                                                            color: #4b90e2;
                                                                            font-weight: bold;
.panel .body li .connect-item label.public {
                                                                            display: table;
                                                                            width: 100%;
  width: calc(100% - 60px);
                                                                            padding: 10px;
                                                                            box-sizing: border-box;
.panel .body li .connect-item input {
                                                                            cursor: pointer;
  padding: 5px;
  height: 26px;
  border: 1px solid #DDD;
                                                                          .backButton img {
  width: calc(100% - 160px);
                                                                            width: 15px;
  font-size: 16px;
                                                                            float: left;
                                                                            margin: 2.5px 0;
.panel .body li .error-item span {
  color: #ff6565;
                                                                          .backButton span {
  font-weight: bold;
                                                                            float: left;
  padding: 2px;
                                                                            padding: 0 3px;
  display: table;
                                                                            display: table;
  float: left;
                                                                            font-size: 20px;
  font-size: 16px;
  text-align: left;
  width: calc(100% - 60px);
                                                                          .message {
                                                                            width: 100%;
                                                                            display: table;
#success .title {
                                                                            text-align: center;
  background: #b8e986;
                                                                            margin: 30px 0 40px 0;
  color: #2b3344;
                                                                            box-sizing: border-box;
                                                                            padding: 10px 20px;
```

```
}
                                                                       .alert.show {
                                                                         border: 1px solid #ff9595;
.passForm {
                                                                         padding: 10px;
  display: table;
                                                                         height: 40px;
  width: 280px;
                                                                         transition: 500ms;
  box-sizing: border-box;
  margin: 0 auto 50px auto;
                                                                       .hide {
                                                                         display: none;
.passForm label {
  color: #444;
                                                                       #home span, #success span {
                                                                         color: #4a4a4a;
.passForm label input {
                                                                         font-weight: bold;
  width: 100%;
                                                                         font-size: 22px;
  display: table;
                                                                         text-align: left;
                                                                         width: 80%;
  height: 40px;
  border: 1px solid #444;
                                                                         margin: 80px auto 0 auto;
  border-radius: 5px;
                                                                         display: table;
  margin: 8px 0;
  box-sizing: border-box;
  padding: 10px;
                                                                       #home img {
                                                                         width: 100%;
                                                                         margin: 60px 0;
.button {
  margin: 0 auto;
  display: table;
                                                                       @media (min-width: 500px) {
  background: #4a90e2;
                                                                         .panel {
  border: none;
                                                                           margin: 0 auto;
  padding: 10px;
                                                                         }
  border-radius: 5px;
  color: #FFF;
                                                                       /* loading */
  cursor: pointer;
  text-decoration: none;
                                                                       .loader {
                                                                         color: #4a90e2;
                                                                         font-size: 20px;
#centered {
                                                                         margin: 150px auto;
  margin-right:auto;
                                                                         width: 1em;
  margin-left:auto;
                                                                         height: 1em;
                                                                         border-radius: 50%;
#footer {
                                                                         position: relative;
  position:fixed;
                                                                         text-indent: -9999em;
  bottom:10px;
                                                                         -webkit-animation: load4 1.3s infinite linear;
  width:100%;
                                                                         animation: load4 1.3s infinite linear;
                                                                         -webkit-transform: translateZ(0);
#cancelBtn {
                                                                         -ms-transform: translateZ(0);
  background: white;
                                                                         transform: translateZ(0);
  z-index: 999;
  color: #ff6666;
  padding: 7px; /* 10px of .button -3px to account for the
                                                                       @-webkit-keyframes load4 {
thick border */
                                                                         0%,
  border: 3px solid #ff6666;
                                                                         100% {
                                                                           box-shadow: 0 -3em 0 0.2em, 2em -2em 0 0em, 3em 0 0
                                                                       -1em, 2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 -1em, -
                                                                       3em 0 0 -1em, -2em -2em 0 0;
.alert {
  width: 100%;
                                                                         }
  text-align: center;
                                                                         12.5% {
  box-sizing: border-box;
                                                                           box-shadow: 0 -3em 0 0, 2em -2em 0 0.2em, 3em 0 0 0,
  margin-bottom: 10px;
                                                                       2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 -1em, -3em 0 0
  color: #ff9595;
                                                                       -1em, -2em -2em 0 -1em;
  font-weight: bold;
  height: 0;
                                                                         25% {
  overflow: hidden;
                                                                           box-shadow: 0 -3em 0 -0.5em, 2em -2em 0 0, 3em 0 0
  transition: 500ms;
                                                                       0.2em, 2em 2em 0 0, 0 3em 0 -1em, -2em 2em 0 -1em, -3em
                                                                       0 0 -1em, -2em -2em 0 -1em;
                                                                         }
```

```
box-shadow: 0em -3em 0 0, 2em -2em 0 -1em, 3em 0 0
    box-shadow: 0 -3em 0 -1em, 2em -2em 0 -1em, 3em
                                                                     -1em, 2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 0, -3em
0em 0 0, 2em 2em 0 0.2em, 0 3em 0 0em, -2em 2em 0 -
                                                                    0em 0 0, -2em -2em 0 0.2em;
1em, -3em 0em 0 -1em, -2em -2em 0 -1em;
                                                                      }
                                                                    }
  50% {
    box-shadow: 0 -3em 0 -1em, 2em -2em 0 -1em, 3em 0 0
                                                                     Directory: intelora-
-1em, 2em 2em 0 0em, 0 3em 0 0.2em, -2em 2em 0 0, -3em
                                                                     core/mycroft/client/wifisetup/web/js/main.js
0em 0 -1em, -2em -2em 0 -1em;
                                                                     function getImagePath(strength) {
  62.5% {
                                                                       if (strength > 0.8) {
    box-shadow: 0 -3em 0 -1em, 2em -2em 0 -1em, 3em 0 0
                                                                         return "img/wifi_4.png";
-1em, 2em 2em 0 -1em, 0 3em 0 0, -2em 2em 0 0.2em, -3em
                                                                       extrm{}{} else if (strength > 0.6) {
0 0 0, -2em -2em 0 -1em;
                                                                         return "img/wifi_3.png";
 }
                                                                       extrm{}{} else if (strength > 0.4) {
  75% {
                                                                         return "img/wifi_2.png";
    box-shadow: 0em -3em 0 -1em, 2em -2em 0 -1em, 3em
                                                                       } else if (strength > 0.2) {
0em 0 -1em, 2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 0,
                                                                         return "img/wifi 1.png";
-3em 0em 0 0.2em, -2em -2em 0 0;
                                                                       } else {
                                                                         return "img/wifi_0.png";
  87.5% {
    box-shadow: 0em -3em 0 0, 2em -2em 0 -1em, 3em 0 0
-1em, 2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 0, -3em
0em 0 0, -2em -2em 0 0.2em;
                                                                     function showPanel(id) {
 }
                                                                       var panels = document.querySelectorAll(".panel");
                                                                       for (var i=0; i < panels.length; i++)
@keyframes load4 {
                                                                         panels[i].classList.add("hide");
  0%.
  100% {
                                                                       document.querySelector("#" +
    box-shadow: 0 -3em 0 0.2em, 2em -2em 0 0em, 3em 0 0
                                                                     id).classList.remove("hide");
-1em, 2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 -1em, -
3em 0 0 -1em, -2em -2em 0 0;
                                                                     var WifiSetup = {
  12.5% {
    box-shadow: 0 -3em 0 0, 2em -2em 0 0.2em, 3em 0 0 0,
                                                                         selectedNetword: null,
2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 -1em, -3em 0 0
-1em, -2em -2em 0 -1em;
                                                                         setListeners: function () {
                                                                           WS.addMessageListener("mycroft.wifi.connected",
  25% {
                                                                     this.onConnected.bind(this));
    box-shadow: 0 -3em 0 -0.5em, 2em -2em 0 0, 3em 0 0
                                                                           WS.addMessageListener("mycroft.wifi.scanned",
0.2em, 2em 2em 0 0, 0 3em 0 -1em, -2em 2em 0 -1em, -3em
                                                                     this.onScanned.bind(this));
0 0 -1em, -2em -2em 0 -1em;
                                                                         },
                                                                         onConnected: function (data) {
    box-shadow: 0 -3em 0 -1em, 2em -2em 0 -1em, 3em
                                                                           if (data.connected) {
0em 0 0, 2em 2em 0 0.2em, 0 3em 0 0em, -2em 2em 0 -
                                                                             // NOTE: Once we send the "mycroft.wifi.stop", the
1em, -3em 0em 0 -1em, -2em -2em 0 -1em;
                                                                     unit will
                                                                             // be shutting down the wifi access point. So the
  50% {
                                                                     device
    box-shadow: 0 -3em 0 -1em, 2em -2em 0 -1em, 3em 0 0
                                                                             // hosting the browser session is probably being
-1em, 2em 2em 0 0em, 0 3em 0 0.2em, -2em 2em 0 0, -3em
                                                                     disconnected
0em 0 -1em, -2em -2em 0 -1em;
                                                                             // and hopefully automatically reconnecting to the
 }
                                                                     internet.
    box-shadow: 0 -3em 0 -1em, 2em -2em 0 -1em, 3em 0 0
                                                                             // Until the reconnect happens, the user cannot
-1em, 2em 2em 0 -1em, 0 3em 0 0, -2em 2em 0 0.2em, -3em
                                                                     actually
0 0 0, -2em -2em 0 -1em;
                                                                             // follow the link to http://home.mycroft.ai to
                                                                     register
  75% {
                                                                             // their device. That is part of why we are doing
    box-shadow: 0em -3em 0 -1em, 2em -2em 0 -1em, 3em
                                                                     this 2 sec
0em 0 -1em, 2em 2em 0 -1em, 0 3em 0 -1em, -2em 2em 0 0,
                                                                             // delay.
-3em 0em 0 0.2em, -2em -2em 0 0;
                                                                             WS.send("mycroft.wifi.stop");
  87.5% {
                                                                             WS.close();
```

```
setTimeout(function () {
                                                                                listItem.appendChild(imgLock);
           var btnCancel =
document.querySelector("#cancelBtn");
                                                                              return listItem;
           btnCancel.classList.add("hide");
                                                                            },
          showPanel("success");
                                                                            ItemDefaultState: function () {
           startPing();
                                                                              var li = document.querySelector(".list-
        }, 2000);
                                                                       item:not(.show)");
      } else {
                                                                              if (!li) {
        showPanel("list-panel");
                                                                                return:
        this.renderErrorItem(this.selectedNetword.el);
                                                                              var divs = li.parentNode.childNodes;
    },
                                                                              Object.keys(divs).forEach(function (div) {
    onScanned: function (data) {
                                                                                divs[div].classList.remove("show");
      var networks = data.networks,
                                                                                if (divs[div].classList.contains("list-item")) {
                                                                                  divs[div].classList.add("show");
        fragment = document.createDocumentFragment(),
        list = document.querySelector("#list"),
        item = null,
                                                                              });
        li = null;
                                                                           },
      showPanel("list-panel");
                                                                            renderConnectItem: function (li) {
                                                                              var connect = li.querySelector(".connect-item");
      Object.keys(networks).sort(function (a, b) {
                                                                              if (!connect) {
         if (networks[a].quality < networks[b].quality) {
                                                                                connect = document.createElement("div");
           return 1;
                                                                                var imgArrow = document.createElement("img");
                                                                                var label = document.createElement("label");
        return 0;
                                                                                connect.className = "connect-item";
      }).forEach(function (network) {
                                                                                imgArrow.src = "img/next.png";
                                                                                img Arrow. add Event Listener ("click",\\
        li = document.createElement("li");
        networks[network].ssid = network;
                                                                       this.clickConnect.bind(this));
        networks[network].el = li;
                                                                                connect.appendChild(label);
        item = this.renderListItem(networks[network]);
                                                                                if (this.selectedNetword.encrypted) {
                                                                                  connect.passwordInput =
        li.appendChild(item):
        fragment.appendChild(li);
                                                                       document.createElement("input");
      }.bind(this));
                                                                                  label.textContent = "Password: ";
                                                                                  connect.passwordInput.type = "password";
      list.innerHTML = null;
                                                                                  connect.appendChild(connect.passwordInput);
      list.appendChild(fragment);
                                                                                } else {
                                                                                  label.className = "public";
    },
                                                                                  label.textContent = this.selectedNetword.ssid;
    renderListItem: function (network) {
      var listItem = document.createElement("div"),
                                                                                connect.appendChild(imgArrow);
        span = document.createElement("span"),
        imgSignal = document.createElement("img");
                                                                                li.appendChild(connect);
      listItem.className = "list-item show";
      span.textContent = network.ssid:
                                                                              li.querySelector(".list-
      span.className = "ssid";
                                                                       item").classList.remove("show");
      imgSignal.src = getImagePath(network.quality);
                                                                              connect.classList.add("show");
      imgSignal.className = "wifi";
                                                                              if ('passwordInput' in connect)
      listItem.appendChild(span);
                                                                                               connect.passwordInput.focus();
      listItem.appendChild(imgSignal);
                                                                           },
      if (network.connected) {
        var connected = document.createElement("span");
                                                                            renderErrorItem: function (li) {
        connected.className = "connected";
                                                                              var error = li.querySelector(".error-item");
        connected.textContent = "Connected";
                                                                              if (error) {
        listItem.classList.add("connected");
                                                                                li.querySelector(".connect-
        listItem.appendChild(connected);
                                                                       item").classList.remove("show");
      } else {
                                                                                error.classList.add("show");
        listItem.addEventListener("click",
                                                                                return:
this.clickNetwork.bind(this, network));
                                                                              }
                                                                              error = document.createElement("div");
      if (network.encrypted) {
                                                                              var imgClose = document.createElement("img");
        var imgLock = document.createElement("img");
                                                                              error.classList.add("error-item");
        imgLock.src = "img/lock.png";
                                                                              imgClose.src = "img/error.png";
        imgLock.className = "lock";
                                                                              var message = document.createElement("span");
```

```
message.textContent = "Try again or connect to a
                                                                                                                                                    }, 2000);
diferent wifi.";
                                                                                                                                                });
           error.appendChild(message);
           error.appendChild(imgClose);
                                                                                                                                    document.guerySelector("#cancelBtn").addEventListener("cl
           li.appendChild(error);
                                                                                                                                    ick", this.cancelSetup);
           li.querySelector(".connect-
item").classList.remove("show");
                                                                                                                                        };
           error.classList.add("show");
            error.addEventListener("click", this.ItemDefaultState);
                                                                                                                                    function startPing() {
        },
                                                                                                                                        ping("home.mycroft.ai",
                                                                                                                                            function(status,e) {
        clickNetwork: function (network) {
                                                                                                                                                if (status == 'responded') {
           this.selectedNetword = network;
                                                                                                                                                    // Un-hide the register button once we detect an
           this.ItemDefaultState();
                                                                                                                                                    // active internet connection.
           this.renderConnectItem(network.el);
                                                                                                                                    document.query Selector ("\#registerBtn"). class List.remove ("house a constant of the consta
                                                                                                                                    ide");
        sendScan: function () {
                                                                                                                                                else
           showPanel("loading");
                                                                                                                                                     setTimeout(function() { startPing(); }, 1000);
                                                                                                                                            });
document.querySelector("#cancelBtn").classList.remove("hi
                                                                                                                                    }
de");
            WS.send("mycroft.wifi.scan");
                                                                                                                                    function ping(domain, callback) {
                                                                                                                                         if (!this.inUse) {
                                                                                                                                            this.status = 'unchecked';
                                                                                                                                            this.inUse = true;
                                                                                                                                            this.callback = callback;
         * @param data is a object with ssid and pass
                                                                                                                                            this.ip = domain;
                                                                                                                                            var _that = this;
        sendConnect: function (data) {
                                                                                                                                            this.img = new Image();
           WS.send("mycroft.wifi.connect", data);
                                                                                                                                            this.img.onload = function () {
                                                                                                                                                 _that.inUse = false;
                                                                                                                                                 _that.callback('responded');
        clickConnect: function () {
                                                                                                                                            this.img.onerror = function (e) {
           showPanel("connecting");
            var network = {
                                                                                                                                                if ( that.inUse) {
                ssid: this.selectedNetword.ssid
                                                                                                                                                     that.inUse = false;
                                                                                                                                                     _that.callback('responded', e);
           if (this.selectedNetword.encrypted) {
                                                                                                                                                }
this.selectedNetword.el.querySelector("input");
                                                                                                                                            this.start = new Date().getTime();
               network.pass = pass.value;
                                                                                                                                            this.img.src = "http://" + domain;
           this.sendConnect(network);
                                                                                                                                            this.timer = setTimeout(function () {
                                                                                                                                                if ( that.inUse) {
        }
                                                                                                                                                     that.inUse = false;
                                                                                                                                                    _that.callback('timeout');
        cancelSetup: function () {
           WS.send("mycroft.wifi.stop");
                                                                                                                                            }, 1500);
           WS.close();
                                                                                                                                    window.addEventListener("load", function () {
        init: function () {
                                                                                                                                        WS.connect();
                                                                                                                                        WS.setOnOpenListener(function () {
           this.setListeners();
           showPanel("home");
                                                                                                                                            WifiSetup.init();
                                                                                                                                        });
document.querySelector("#connectBtn").addEventListener("
                                                                                                                                    });
click", this.sendScan);
                                                                                                                                    Directory: intelora-
document.querySelector("#registerBtn").addEventListener("
                                                                                                                                    core/mycroft/client/wifisetup/web/js/Config.j
click", function () {
                                                                                                                                    s
                setTimeout(function() {
```

location.href="https://home.mycroft.ai";

```
var Config = {
  wsUrl: "ws://172.24.1.1:8181/core"
                                                                      <!DOCTYPE html>
                                                                      <html lang="en">
                                                                       <head>
                                                                         <meta charset="UTF-8">
Directory: intelora-
                                                                         <title>Wifi Setup</title>
core/mycroft/client/wifisetup/web/js/WS.js
                                                                         <link rel="stylesheet" href="css/style.css">
                                                                         <meta name="viewport" content="width=device-width,
var WS = {
                                                                       initial-scale=1">
  ws: null,
                                                                         <script type="application/javascript"</pre>
  wsConnected: false,
                                                                      src="js/Config.js"></script>
  listeners: {},
                                                                         <script type="application/javascript"</pre>
  onOpenListeners: [],
                                                                      src="js/WS.js"></script>
                                                                         <script type="application/javascript"</pre>
  connect: function () {
                                                                      src="js/main.js"></script>
    this.ws = new WebSocket(Config.wsUrl);
                                                                       </head>
    this.setWSListeners();
                                                                      <body>
  },
                                                                       <div id="home" class="panel hide">
  setWSListeners: function () {
                                                                         <div class="title">HI, MYCROFT HERE</div>
    this.ws.onmessage = this.onMessage.bind(this);
                                                                         <div class="body">
    this.ws.onopen = this.onOpen.bind(this);
                                                                           <span>This process is for connecting me to the internet
                                                                      through your wifi.</span>
                                                                           <img src="img/connect.png"/>
  setOnOpenListener: function (cb) {
                                                                           <a id="connectBtn" class="button">LET'S CONNECT</a>
    this.onOpenListeners.push(cb);
                                                                         </div>
                                                                       </div>
  onMessage: function (evt) {
                                                                       <div id="list-panel" class="panel hide">
    var msg = JSON.parse(evt.data);
                                                                         <div class="title">CHOOSE YOUR USUAL WIFI</div>
    if (this.listeners[msg.type]) {
                                                                         ul id="list" class="body">
      this.listeners[msg.type].forEach(function (cb) {
        cb(msg.data);
      });
                                                                      <div id="loading" class="panel">
    }
                                                                         <div class="title">LOADING</div>
  },
                                                                         <div class="body">
                                                                           <div class="loader"></div>
  onOpen: function () {
                                                                         </div>
    this.wsConnected = true;
                                                                       </div>
    this.onOpenListeners.forEach(function (cb) {
      cb();
                                                                      <div id="connecting" class="panel hide">
    });
                                                                         <div class="title">CONNECTING</div>
                                                                         <div class="body">
                                                                          <div class="loader"></div>
  send: function (type, data) {
                                                                         </div>
    this.ws.send(JSON.stringify({
                                                                       </div>
      type: type,
      data: data
                                                                      <div id="success" class="panel hide">
    }));
                                                                         <div class="title">CONNECTED</div>
  },
                                                                         <div class="body">
                                                                           <span>I'm connected to the internet now. Feels goood
  close: function () {
                                                                       <img src="img/love.png"/></span>
    this.ws.close();
                                                                           <small>If I am registered with your account, I'm ready
    this.wsConnected = false;
                                                                      to roll. If not, go ahead and register me at
    this.ws = null;
                                                                      home.mycroft.ai.</small>
                                                                           <a class="button hide" id="registerBtn">REGISTER
                                                                      ME</a>
  addMessageListener: function (type, callback) {
                                                                        </div>
    this.listeners[type] = this.listeners[type] || [];
                                                                       </div>
    this.listeners[type].push(callback);
  }
                                                                       <a class="button" id="cancelBtn">CANCEL SETUP</a>
};
```

</body>

</html>

Directory: intelora-

core/mycroft/client/wifisetup/web/index.html

Directory: intelora-core/scripts/start.sh

```
#!/usr/bin/env bash
TOP=$(cd $(dirname $0) && cd .. && pwd -L)
VIRTUALENV_ROOT=${VIRTUALENV_ROOT:-
"${HOME}/.virtualenvs/mycroft"}
case $1 in
          "service")
SCRIPT=${TOP}/mycroft/messagebus/service/main.py;;
           "skills") SCRIPT=${TOP}/mycroft/skills/main.py;;
           "skill_container")
SCRIPT=${TOP}/mycroft/skills/container.py;;
          "voice")
SCRIPT=${TOP}/mycroft/client/speech/main.py;;
          "cli") SCRIPT=${TOP}/mycroft/client/text/main.py
          "audiotest")
SCRIPT=${TOP}/mycroft/util/audio_test.py;;
          "collector")
SCRIPT=${TOP}/mycroft_data_collection/cli.py;;
          "unittest") SCRIPT=${TOP}/test/main.py ;;
          "audioaccuracytest") SCRIPT=${TOP}/test/audio-
accuracy-test/audio_accuracy_test.py;;
          "sdkdoc")
SCRIPT=${TOP}/doc/generate_sdk_docs.py;;
  "enclosure")
SCRIPT=${TOP}/mycroft/client/enclosure/main.py;;
  "wifi") SCRIPT=${TOP}/mycroft/client/wifisetup/main.py;;
          *) echo "Usage: start.sh [service | skills |
skill_container | voice | cli | audiotest | collector | unittest |
enclosure | sdkdoc | wifi]"; exit ;;
esac
echo "Starting $@"
shift
source ${VIRTUALENV ROOT}/bin/activate
PYTHONPATH=${TOP} python ${SCRIPT} $@
```

Directory: intelora-core/scripts/install-mimic.sh

```
#!/usr/bin/env bash
# exit on any error
set -Ee
MIMIC DIR=mimic
CORES=$(nproc)
# download and install mimic
if [!-d ${MIMIC DIR}]; then
 git clone https://github.com/MycroftAI/mimic.git
 cd ${MIMIC_DIR}
  ./configure --with-audio=alsa
 make #-j$CORES
else
 # ensure mimic is up to date
 cd ${MIMIC_DIR}
 git pull
 make clean
  ./configure --with-audio=alsa
```

make #-j\$CORES

Directory: inteloracore/scripts/pocketsphinx.sh

```
#!/usr/bin/env bash
# exit on any error
set -Ee
#TOP="."
function enable_local {
sed -i -- 's/from pocketsphinx.pocketsphinx import
Decoder/from pocketsphinx import Decoder/g'
mycroft/client/speech/local recognizer.py
function disable_local {
sed -i -- 's/from pocketsphinx import Decoder/from
pocketsphinx.pocketsphinx import Decoder/g'
mycroft/client/speech/local_recognizer.py
function install pocketsphinx {
 # clone pocketsphinx-python at HEAD (fix to a constant
version later)
if [!-d${TOP}/pocketsphinx-python]; then
 # build sphinxbase and pocketsphinx if we haven't already
  git clone --recursive
https://github.com/cmusphinx/pocketsphinx-python
  pushd ./pocketsphinx-python/sphinxbase
  ./autogen.sh
  ./configure
  make -j$CORES
  popd
  pushd ./pocketsphinx-python/pocketsphinx
  ./autogen.sh
  ./configure
  make -j$CORES
  popd
# build and install pocketsphinx python bindings
 cd ${TOP}/pocketsphinx-python
 python setup.py install
if [ "$1" = "-q" ]; then
 enable local
install pocketsphinx
 exit 0
echo "This script will checkout, compile, and install
pocketsphinx locally if the debian package python-
pocketsphinx is not available"
PS3='Please enter your choice: '
options=("Enable local checkout, compile and install"
"Disable local checkout and exit" "Do nothing and quit")
select opt in "${options[@]}"
  case $opt in
```

```
"Enable local checkout, compile and install")
      echo "you chose choice 1"
      enable_local
      install pocketsphinx
    "Disable local checkout and exit")
      echo "you chose choice 2"
      disable local
      exit 0
    "Do nothing and quit")
      echo "you chose choice 3"
      exit 0
           *) echo invalid option;;
 esac
done
```

Directory: intelora-core/scripts/install-pygtk.sh

```
#!/usr/bin/env bash
# Ensure we're in a virtualenv.
if [ "$VIRTUAL_ENV" == "" ]
then
  echo "ERROR: not in a virtual environment."
  exit -1
# Setup variables.
CACHE="/tmp/install-pygtk-$$"
CORES=$(nproc)
# Make temp directory.
mkdir -p $CACHE
# Test for py2cairo.
echo -e "\E[1m * Checking for cairo...\E[0m"
python -c "
try: import cairo; raise SystemExit(0)
except ImportError: raise SystemExit(-1)"
if [ $? == 255 ]
then
  echo -e "\E[1m * Installing cairo...\E[0m"
  # Fetch, build, and install py2cairo.
  ( cd $CACHE
    curl 'https://www.cairographics.org/releases/py2cairo-
1.10.0.tar.bz2' > "py2cairo.tar.bz2"
    tar -xvf py2cairo.tar.bz2
    ( cd py2cairo*
      autoreconf -ivf
      ./configure --prefix=$VIRTUAL_ENV --disable-
dependency-tracking
      make -j$CORES
      make install
 )
fi
# Test for gobject.
echo -e "\E[1m * Checking for gobject...\E[0m"
python -c "
try: import gobject; raise SystemExit(0)
except ImportError: raise SystemExit(-1)"
if [ $? == 255 ]
```

```
then
  echo -e "\E[1m * Installing gobject...\E[0m"
  # Fetch, build, and install gobject.
  ( cd $CACHE
    curl
'http://ftp.gnome.org/pub/GNOME/sources/pygobject/2.28
/pygobject-2.28.6.tar.bz2' > 'pygobject.tar.bz2'
    tar -xvf pygobject.tar.bz2
    ( cd pygobject*
       ./configure --prefix=$VIRTUAL_ENV --disable-
introspection
      make -j$CORES
      make install
  )
fi
# Test for gtk.
echo -e "\E[1m * Checking for gtk...\E[0m"
python -c "
try: import gtk; raise SystemExit(0)
except ImportError: raise SystemExit(-1)" 2&> /dev/null
if [ $? == 255 ]
  echo -e "\E[1m * Installing gtk...\E[0m"
  # Fetch, build, and install gtk.
  ( cd $CACHE
    curl
'https://pypi.python.org/packages/source/P/PyGTK/pygtk-
2.24.0.tar.bz2' > 'pygtk.tar.bz2'
    tar -xvf pygtk.tar.bz2
    ( cd pygtk*
       ./configure --prefix=$VIRTUAL ENV
PKG CONFIG PATH=/usr/local/lib/pkgconfig:$VIRTUAL ENV
/lib/pkgconfig
      make -j$CORES
      make install
  )
Fi
Directory: intelora-core/setup/dev_setup.sh
```

```
set -Ee
if [$(id -u) -eq 0]; then
 echo "This script should not be run as root or with sudo."
 exit 1
fi
TOP=$(cd $(dirname $0) && pwd -L)
VIRTUALENV_ROOT=${VIRTUALENV_ROOT:-
"${HOME}/.virtualenvs/mycroft"}
# create virtualenv, consistent with virtualenv-wrapper
conventions
if [ ! -d ${VIRTUALENV_ROOT}]; then
 mkdir -p $(dirname ${VIRTUALENV_ROOT})
 virtualenv -p python2.7 ${VIRTUALENV_ROOT}
source ${VIRTUALENV_ROOT}/bin/activate
cd ${TOP}
easy_install pip==7.1.2 # force version of pip
sudo pip install --upgrade virtualenv
```

```
# install requirements (except pocketsphinx)
pip2 install -r requirements.txt

CORES=$(nproc)
echo Building with $CORES cores.

TOP=$(cd $(dirname $0) && cd .. && pwd -L)
cd ${TOP}

# build and install pocketsphinx
#${TOP}/scripts/install-pocketsphinx.sh -q

# build and install mimic
${TOP}/scripts/install-mimic.sh

# install pygtk for desktop_launcher skill
${TOP}/scripts/install-pygtk.sh
```

Directory: intelora-core/setup/mycroft-base-MANIFEST.in

```
recursive-include mycroft/client/speech/model * include requirements.txt include mycroft/configuration/*.conf recursive-include mycroft/skills/*/dialog * recursive-include mycroft/skills/*/vocab * recursive-include mycroft/skills/*/regex * include mycroft/skills/alarm/alarm.mp3 include mycroft/skills/volume/blop-mark-diangelo.wav #include mycroft/tts/mycroft_voice_4.0.flitevox recursive-include mycroft/client/wifisetup/web/* * include mycroft/client/wifisetup/web/index.html
```

Directory: intelora-core/setup/mycroft-base-setup.py

```
from setuptools import setup
```

```
from mycroft.util.setup_base import (
  find all packages,
  required,
  get_version,
  place manifest
 _author__ = 'seanfitz'
place_manifest('mycroft-base-MANIFEST.in')
  name="mycroft-core",
  version=get_version(),
  install_requires=[required('requirements.txt'), 'wifi'],
  packages=find_all_packages("mycroft"),
  include_package_data=True,
  entry_points={
    'console_scripts': [
      'mycroft-speech-
client=mycroft.client.speech.main:main',
      'mycroft-
messagebus=mycroft.messagebus.service.main:main',
      'mycroft-skills=mycroft.skills.main:main',
      'mycroft-echo-
observer=mycroft.messagebus.client.ws:echo',
```

Directory: intelora-core/setup/requirement.txt

```
shortuuid==0.4.3
pystache==0.5.4
configobj==5.0.6
wikipedia==1.4.0
requests==2.8.1
pyOpenSSL==16.0.0
ndg-httpsclient==0.4.0
pvasn1==0.1.9
gTTS==1.0.7
backports.ssl-match-hostname==3.4.0.2
certifi==2016.2.28
PyAudio==0.2.8
pyee = = 1.0.1
SpeechRecognition==3.1.3
tornado==4.2.1
websocket-client==0.32.0
adapt-parser==0.2.7
pyowm==2.2.1
wolframalpha==1.4
futures==3.0.3
requests-futures==0.9.5
astral==0.9
tzlocal==1.2
parsedatetime==1.5
pdoc==0.3.2
pyyaml==3.11
feedparser==5.2.1
pyalsaaudio==0.8.2
xmlrunner==1.7.7
pyserial==3.0
netifaces==0.10.4
pyjokes==0.5.0
psutil==4.1.0
pep8==1.7.0
multi_key_dict==2.0.3
pocketsphinx==0.1.0
wifi==0.3.8
pyroute2==0.4.5
urllib5==5.0.0
pyric==0.1.6
inflection==0.3.1
```

Directory: intelora-core/setup/skills-sdk-MANIFEST.in

include requirements.txt include mycroft/configuration/*.conf include mycroft/util/setup_base.py include mycroft/__version__.py include skills-sdk-MANIFEST.in

Directory: intelora-core/setup/skills-sdk-setup.py

```
from setuptools import setup
from mycroft.util.setup_base import get_version,
place manifest
__author__ = 'seanfitz'
place_manifest("skills-sdk-MANIFEST.in")
setup(
  name="mycroft-skills-sdk",
  version=get_version(),
  install requires=[
    "mustache==0.1.4",
    "configobj==5.0.6",
    "pyee==1.0.1",
    "adapt-parser==0.2.1".
    "websocket-client==0.32.0"
  packages=[
    "mycroft.configuration",
    "mycroft.dialog",
    "mycroft.filesystem",
    "mycroft.messagebus",
    "mycroft.messagebus.client",
    "mycroft.session",
    "mycroft.skills.intent",
    "mycroft.skills",
    "mycroft.util",
    "mycroft"
  include_package_data=True,
  entry_points={
    'console_scripts': [
      'mycroft-skill-container=mycroft.skills.container:main'
```

Directory: intelora-core/setup/testrequirement.txt

```
pep8
xmlrunner==1.7.7
```

}

Directory: intelora-core/test/mycroft.con

```
{
    "server": {
        "metrics": false
    }
}
```

Directory: intelora-core/test/main.py

```
import sys
from unittest import TestLoader
from os.path import dirname
```

```
from xmlrunner import XMLTestRunner
```

```
from mycroft.configuration import ConfigurationManager
```

```
__author__ = 'seanfitz, jdorleans'

if __name__ == "__main__":
    fail_on_error = "--fail-on-error" in sys.argv
    ConfigurationManager.load_local(['mycroft.conf'],
    keep_user_config=False)

tests = TestLoader().discover(dirname(__file__), "*.py")
    result = XMLTestRunner("./build/report/tests").run(tests)

if fail_on_error and len(result.failures + result.errors) > 0:
    sys.exit(1)
```

Directory: intelora-core/test/test_runner.py

```
import sys
import unittest

from os.path import dirname
from xmlrunner import XMLTestRunner

from mycroft.configuration import ConfigurationManager

__author__ = 'seanfitz, jdorleans'
if __name__ == "__main__":
    fail_on_error = "--fail-on-error" in sys.argv
    ConfigurationManager.load_local(['mycroft.ini'])

    tests = unittest.TestLoader().discover(dirname(__file__),
    "*.py")
    runner = XMLTestRunner("./build/report/tests")
    result = runner.run(tests)

if fail_on_error and len(result.failures + result.errors) > 0:
    sys.exit(1)
```

Directory: intelora-core/test/aidio-accuracy-test

```
import os
import time
import wave
from glob import glob
from os.path import dirname, join
import pyee
from speech_recognition import AudioSource
from mycroft.client.speech.listener import RecognizerLoop
from mycroft.client.speech.mic import
ResponsiveRecognizer
from mycroft.client.speech.mic import logger as
speech logger
from mycroft.util.log import getLogger
 __author__ = 'wolfgange3311999'
logger = getLogger('audio_test_runner')
def to_percent(val):
  return "{0:.2f}".format(100.0 * val) + "%"
```

```
def test_audio(self, file_name):
class FileStream(object):
                                                                           source = FileMockMicrophone(file name)
  MIN S TO DEBUG = 5.0
                                                                           ee = pyee.EventEmitter()
  # How long between printing debug info to screen
                                                                           class SharedData:
  UPDATE INTERVAL S = 1.0
                                                                             times_found = 0
  def __init__(self, file_name):
                                                                           def on_found_wake_word():
    self.file = wave.open(file_name, 'rb')
                                                                             SharedData.times_found += 1
    self.size = self.file.getnframes()
    self.sample_rate = self.file.getframerate()
                                                                           ee.on('recognizer_loop:record_begin',
    self.sample_width = self.file.getsampwidth()
                                                                       on_found_wake_word)
    self.last_update_time = 0.0
                                                                           try:
    self.total_s = self.size / self.sample_rate /
                                                                             while True:
self.sample_width
                                                                               self.listener.listen(source, ee)
    if self.total_s > self.MIN_S_TO_DEBUG:
                                                                           except EOFError:
      self.debug = True
                                                                             pass
    else:
      self.debug = False
                                                                           return SharedData.times_found
  def calc_progress(self):
    return float(self.file.tell()) / self.size
                                                                       class Color:
                                                                         BOLD = '\033[1m']
  def read(self, chunk_size):
                                                                         NORMAL = '\033[0m'
                                                                         GREEN = '\033[92m'
    progress = self.calc_progress()
                                                                         RED = '\033[91m'
    if progress == 1.0:
      raise EOFError
                                                                       def bold_str(val):
    if self.debug:
                                                                         return Color.BOLD + str(val) + Color.NORMAL
      cur_time = time.time()
      dt = cur time - self.last update time
      if dt > self.UPDATE INTERVAL S:
                                                                       def get root dir():
        self.last_update_time = cur_time
                                                                         return dirname(dirname(__file__))
        print(to_percent(progress))
                                                                       def get_file_names(folder):
    return self.file.readframes(chunk size)
                                                                         query = join(folder, '*.wav')
                                                                         root dir = get root dir()
  def close(self):
    self.file.close()
                                                                         full_path = join(root_dir, query)
                                                                         file_names = sorted(glob(full_path))
class FileMockMicrophone(AudioSource):
                                                                         if len(file_names) < 1:
  def __init__(self, file_name):
                                                                           raise IOError
    self.stream = FileStream(file name)
    self.SAMPLE RATE = self.stream.sample rate
                                                                         return file names
    self.SAMPLE_WIDTH = self.stream.sample_width
    self.CHUNK = 1024
                                                                       def test audio files(tester, file names, on file finish):
  def close(self):
                                                                         num found = 0
    self.stream.close()
                                                                         for file_name in file_names:
                                                                           short_name = os.path.basename(file_name)
                                                                           times_found = tester.test_audio(file_name)
class AudioTester(object):
  def __init__(self, samp_rate):
                                                                           num found += times found
    print # Pad debug messages
                                                                           on_file_finish(short_name, times_found)
    self.ww_recognizer =
RecognizerLoop.create_mycroft_recognizer(
                                                                         return num_found
      samp_rate, 'en-us')
    self.listener =
ResponsiveRecognizer(self.ww_recognizer)
                                                                       def file_frame_rate(file_name):
                                                                         wf = wave.open(file_name, 'rb')
    speech_logger.setLevel(100) # Disables logging to clean
                                                                         frame_rate = wf.getframerate()
                                                                         wf.close()
output
```

```
return frame rate
                                                                           print(bold str("Warning: No wav files found in " +
                                                                       false_neg_dir))
def print ww found status(word, short name):
  print("Wake word " + bold_str(word) + " - " + short_name)
                                                                           test_false_positive(false_pos_dir)
                                                                         except IOError:
                                                                           print(bold str("Warning: No wav files found in " +
def test false negative(directory):
                                                                       false_pos_dir))
  file_names = get_file_names(directory)
                                                                         print("Complete!")
  # Grab audio format info from first file
  tester = AudioTester(file_frame_rate(file_names[0]))
                                                                       if __name__ == "__main__":
  def on_file_finish(short_name, times_found):
                                                                         run_test()
    not_found_str = Color.RED + "Not found"
    found_str = Color.GREEN + "Detected "
                                                                       Directory: intelora-
    status_str = not_found_str if times_found == 0 else
                                                                       core/test/client/audio_consumer_test.py
found_str
    print_ww_found_status(status_str, short_name)
                                                                       import unittest
                                                                       from Queue import Queue
  num_found = test_audio_files(tester, file_names,
on_file_finish)
                                                                       import speech_recognition
  total = len(file_names)
                                                                       from os.path import dirname, join
                                                                       from speech recognition import WavFile, AudioData
  print("Found " + bold_str(num_found) + " out of " +
                                                                       from mycroft.client.speech.listener import AudioConsumer,
bold_str(total))
                                                                       RecognizerLoop
  print(bold_str(to_percent(float(num_found) / total)) + "
                                                                       from mycroft.client.speech.local_recognizer import
accuracy.")
                                                                       LocalRecognizer
  print
                                                                       from mycroft.stt import GoogleSTT
                                                                       __author__ = 'seanfitz'
def test_false_positive(directory):
  file_names = get_file_names(directory)
                                                                       class MockRecognizer(object):
  # Grab audio format info from first file
                                                                         def __init__(self):
  tester = AudioTester(file\_frame\_rate(file\_names[0]))
                                                                           self.transcriptions = []
  def on_file_finish(short_name, times_found):
                                                                         def recognize_google(self, audio, key=None,
    not_found_str = Color.GREEN + "Not found"
                                                                       language=None, show_all=False):
    found str = Color.RED + "Detected "
                                                                           if len(self.transcriptions) > 0:
    status_str = not_found_str if times_found == 0 else
                                                                             return self.transcriptions.pop(0)
found str
                                                                           else:
    print ww found status(status str, short name)
                                                                             raise speech_recognition.UnknownValueError()
  num_found = test_audio_files(tester, file_names,
                                                                         def\ set\_transcriptions (self,\ transcriptions):
on file finish)
                                                                           self.transcriptions = transcriptions
  total = len(file names)
  print
                                                                       class AudioConsumerTest(unittest.TestCase):
  print("Found" + bold str(num found) + " false positives")
  print("in " + bold_str(str(total)) + " files")
                                                                         AudioConsumerTest
  print
                                                                         def setUp(self):
def run_test():
                                                                           self.loop = RecognizerLoop()
  directory = join('audio-accuracy-test', 'data')
                                                                           self.queue = Queue()
                                                                           self.recognizer = MockRecognizer()
  false_neg_dir = join(directory, 'with_wake_word',
'query_after')
                                                                           self.consumer = AudioConsumer(
  false_pos_dir = join(directory, 'without_wake_word')
                                                                             self.loop.state, self.queue, self.loop, GoogleSTT(),
  try:
                                                                       LocalRecognizer(self.loop.wakeup_recognizer.key_phrase,
    test_false_negative(false_neg_dir)
                                                                                      self.loop.wakeup recognizer.phonemes,
  except IOError:
                                                                       "1e-16"),
```

```
self.loop.mycroft_recognizer)
                                                                       self.queue.put(self.__create_sample_from_test_file('weathe
  def __create_sample_from_test_file(self, sample_name):
                                                                       r mvcroft'))
    root dir = dirname(dirname( file )))
                                                                           self.recognizer.set transcriptions(["what's the weather
                                                                       next week"])
    filename = join(
      root_dir, 'test', 'client', 'data', sample_name + '.wav')
                                                                           monitor = {}
    wavfile = WavFile(filename)
    with wavfile as source:
                                                                           def callback(message):
      return AudioData(
                                                                              monitor['utterances'] = message.get('utterances')
        source.stream.read(), wavfile.SAMPLE_RATE,
        wavfile.SAMPLE_WIDTH)
                                                                           self.loop.once('recognizer_loop:utterance', callback)
                                                                           self.consumer.read()
  def test_word_extraction(self):
                                                                           utterances = monitor.get('utterances')
    This is intended to test the extraction of the word:
                                                                           self.assertIsNotNone(utterances)
``mvcroft``.
                                                                           self.assertTrue(len(utterances) == 1)
    The values for ``ideal_begin`` and ``ideal_end`` were
                                                                           self.assertEquals("what's the weather next week",
found using an
                                                                       utterances[0])
    audio tool like Audacity and they represent a sample
                                                                         def test_wakeword(self):
value position of
    the audio. "tolerance" is an acceptable margin error for
                                                                       self.queue.put(self.__create_sample_from_test_file('mycrof
the distance
    between the ideal and actual values found by the
                                                                       t'))
``WordExtractor`
                                                                            self.recognizer.set_transcriptions(["silence"])
                                                                           monitor = {}
    # TODO: implement WordExtractor test without relying
                                                                           def callback(message):
on the listener
                                                                              monitor['utterances'] = message.get('utterances')
    return
                                                                           self.loop.once('recognizer_loop:utterance', callback)
    audio =
                                                                           self.consumer.read()
self.__create_sample_from_test_file('weather_mycroft')
                                                                           utterances = monitor.get('utterances')
    self.queue.put(audio)
    tolerance = 4000
                                                                           self.assertIsNotNone(utterances)
    ideal begin = 70000
                                                                           self.assertTrue(len(utterances) == 1)
    ideal\_end = 92000
                                                                           self.assertEquals("silence", utterances[0])
    monitor = {}
                                                                         def test ignore wakeword when sleeping(self):
    self.recognizer.set transcriptions(["what's the weather
next week"])
                                                                       self.queue.put(self. create sample from test file('mycrof
                                                                       t'))
    def wakeword_callback(message):
                                                                           self.recognizer.set_transcriptions(["not detected"])
      monitor['pos_begin'] = message.get('pos_begin')
                                                                           self.loop.sleep()
      monitor['pos end'] = message.get('pos end')
                                                                           monitor = {}
    self.loop.once('recognizer_loop:wakeword',
                                                                           def wakeword_callback(message):
wakeword callback)
                                                                              monitor['wakeword'] = message.get('utterance')
    self.consumer.read()
                                                                           self.loop.once('recognizer_loop:wakeword',
                                                                       wakeword_callback)
    actual_begin = monitor.get('pos_begin')
    self.assertIsNotNone(actual begin)
                                                                           self.consumer.read()
    diff = abs(actual begin - ideal begin)
                                                                           self.assertIsNone(monitor.get('wakeword'))
    self.assertTrue(
                                                                           self.assertTrue(self.loop.state.sleeping)
      diff <= tolerance,
      str(diff) + " is not less than " + str(tolerance))
                                                                         def test_wakeup(self):
    actual_end = monitor.get('pos_end')
                                                                       self.queue.put(self.__create_sample_from_test_file('mycrof
    self.assertIsNotNone(actual_end)
                                                                       t_wakeup'))
    diff = abs(actual_end - ideal_end)
                                                                           self.loop.sleep()
                                                                           self.consumer.read()
    self.assertTrue(
      diff <= tolerance,
                                                                           self.assertFalse(self.loop.state.sleeping)
      str(diff) + " is not less than " + str(tolerance))
                                                                         def test_stop(self):
  def test_wakeword_in_beginning(self):
                                                                       self.queue.put(self.__create_sample_from_test_file('mycrof
                                                                       t'))
```

```
self.consumer.read()
                                                                            self.chunks = self.chunks[1:]
                                                                          return result
self.queue.put(self. create sample from test file('stop'))
    self.recognizer.set_transcriptions(["stop"])
                                                                     class MockSource(AudioSource):
    monitor = {}
                                                                        def __enter__(self):
                                                                          return self
    def utterance callback(message):
      monitor['utterances'] = message.get('utterances')
                                                                        def __exit__(self, exc_type, exc_value, traceback):
                                                                          pass
    self.loop.once('recognizer_loop:utterance',
utterance_callback)
                                                                        def __init__(self, stream=None):
    self.consumer.read()
                                                                          self.stream = stream if stream else MockStream()
                                                                          self.CHUNK = 1024
    utterances = monitor.get('utterances')
                                                                          self.SAMPLE_RATE = 16000
                                                                          self.SAMPLE_WIDTH = 2
    self.assertIsNotNone(utterances)
    self.assertTrue(len(utterances) == 1)
    self.assertEquals("stop", utterances[0])
                                                                     class DynamicEnergytest(unittest.TestCase):
  def test_record(self):
                                                                        def setUp(self):
                                                                          pass
self.queue.put(self.__create_sample_from_test_file('mycrof
                                                                        def testMaxAudioWithBaselineShift(self):
t'))
    self.consumer.read()
                                                                          low_base = b'''.join(["\x10\x00\x01\x00"] * 100)
                                                                          higher_base = b'''.join(["\x01\x00\x00\x01"] * 100)
self.queue.put(self.__create_sample_from_test_file('record'
                                                                          source = MockSource()
))
    self.recognizer.set_transcriptions(["record"])
                                                                          for i in xrange(100):
    monitor = {}
                                                                            source.stream.inject(low_base)
    def utterance_callback(message):
                                                                          source.stream.inject(higher_base)
      monitor['utterances'] = message.get('utterances')
                                                                          recognizer = ResponsiveRecognizer(None)
    self.loop.once('recognizer loop:utterance',
                                                                          sec per buffer = float(source.CHUNK) /
utterance_callback)
                                                                     (source.SAMPLE_RATE *
    self.consumer.read()
                                                                                               source.SAMPLE_WIDTH)
    utterances = monitor.get('utterances')
                                                                          test seconds = 30.0
    self.assertIsNotNone(utterances)
                                                                          while test_seconds > 0:
    self.assertTrue(len(utterances) == 1)
                                                                            test seconds -= sec per buffer
    self.assertEquals("record", utterances[0])
                                                                            data = source.stream.read(source.CHUNK)
                                                                            energy = recognizer.calc_energy(data,
                                                                     source.SAMPLE WIDTH)
Directory: intelora-
                                                                            recognizer.adjust_threshold(energy, sec_per_buffer)
core/test/client/dynamic_energy_test.py
                                                                          higher base energy = audioop.rms(higher base,
import unittest
                                                                     source.SAMPLE WIDTH)
import audioop
                                                                          # after recalibration (because of max audio length) new
from speech_recognition import AudioSource
                                                                     threshold
from mycroft.client.speech.mic import
                                                                          # should be >= 1.5 * higher base energy
ResponsiveRecognizer
                                                                          delta_below_threshold = (
                                                                            recognizer.energy_threshold - higher_base_energy)
__author__ = 'seanfitz'
                                                                          min_delta = higher_base_energy * .5
                                                                          assert abs(delta_below_threshold - min_delta) < 1
class MockStream(object):
                                                                     Directory: intelora-
  def init (self):
                                                                     core/test/client/local_recognizer_test.py
    self.chunks = []
  def inject(self, chunk):
                                                                     import unittest
    self.chunks.append(chunk)
                                                                     import os
  def read(self, chunk_size):
                                                                     from speech_recognition import WavFile
    result = self.chunks[0]
    if len(self.chunks) > 1:
                                                                     from mycroft.client.speech.listener import RecognizerLoop
```

```
}
__author__ = 'seanfitz'
                                                                             return config
                                                                          def assert_config(self, config, lang='en-us',
DATA DIR =
                                                                        module='mimic', voice="ap"):
os.path.join(os.path.abspath(os.path.dirname(__file__)),
                                                                             self.assertIsNotNone(config)
"data")
                                                                             lan = config.get('lang')
                                                                             self.assertIsNotNone(lan)
class LocalRecognizerTest(unittest.TestCase):
                                                                             self.assertEquals(lan, lang)
  def setUp(self):
                                                                             tts = config.get('tts')
    self.recognizer =
                                                                             self.assertIsNotNone(tts)
RecognizerLoop.create_mycroft_recognizer(16000,
                                                                             mod = tts.get('module')
                                                                             self.assertEquals(mod, module)
                                     "en-us")
                                                                             voi = tts.get(mod, {}).get("voice")
  def testRecognizerWrapper(self):
                                                                             self.assertEquals(voi, voice)
    source = WavFile(os.path.join(DATA_DIR,
"hey_mycroft.wav"))
    with source as audio:
                                                                        class ConfigurationLoaderTest(AbstractConfigurationTest):
      hyp = self.recognizer.transcribe(audio.stream.read())
                                                                           def test_init_config_with_defaults(self):
                                                                             self. assert Equals (Configuration Loader.init\_config(), \{\})
      assert self.recognizer.key_phrase in
hyp.hypstr.lower()
    source = WavFile(os.path.join(DATA_DIR,
                                                                           def test_init_config_with_new_config(self):
"mycroft.wav"))
                                                                             config = {'a': 'b'}
    with source as audio:
      hyp = self.recognizer.transcribe(audio.stream.read())
                                                                        self.assertEquals(ConfigurationLoader.init_config(config),
      assert self.recognizer.key_phrase in
                                                                        config)
hyp.hypstr.lower()
                                                                          def test_init_locations_with_defaults(self):
  def testRecognitionInLongerUtterance(self):
                                                                             locations = [DEFAULT_CONFIG, SYSTEM_CONFIG,
    source = WavFile(os.path.join(DATA_DIR,
                                                                         USER CONFIGI
"weather_mycroft.wav"))
                                                                             self.assertEquals(ConfigurationLoader.init_locations(),
    with source as audio:
                                                                        locations)
      hyp = self.recognizer.transcribe(audio.stream.read())
                                                                          def test init locations with new location(self):
      assert self.recognizer.key_phrase in
hyp.hypstr.lower()
                                                                             locations = [self.config path]
                                                                        self. assert Equals (Configuration Loader. in it\_locations (location
Directory: intelora-
                                                                        s),
core/test/configuration/__init__.py
                                                                                       locations)
import unittest
                                                                          def test validate data(self):
from os.path import dirname, join
                                                                               ConfigurationLoader.validate({}, [])
                                                                             except TypeError:
from mycroft.configuration import ConfigurationLoader,
                                                                               self.fail()
ConfigurationManager, \
  DEFAULT_CONFIG, SYSTEM_CONFIG, USER_CONFIG,
                                                                          def test_validate_data_with_invalid_data(self):
RemoteConfiguration
                                                                             self.assertRaises(TypeError,
                                                                        ConfigurationLoader.validate)
__author__ = 'jdorleans'
                                                                          def test load(self):
                                                                             self.assert_config(ConfigurationLoader.load())
class AbstractConfigurationTest(unittest.TestCase):
  def setUp(self):
                                                                          def test_load_with_override_custom(self):
    self.config_path = join(dirname(__file__),
                                                                             config = self.create_config('pt-br', 'espeak', 'f1')
'mycroft.conf')
                                                                             config = ConfigurationLoader.load(config)
                                                                             self.assert_config(config)
  @staticmethod
  def create_config(lang='en-us', module='mimic',
                                                                           def test_load_with_override_default(self):
voice="ap"):
                                                                             config = self.create_config()
    config = {
                                                                             config = ConfigurationLoader.load(config,
      'lang': lang,
                                                                        [self.config_path])
      'tts': {
                                                                             self.assert_config(config, 'pt-br', 'espeak', 'f1')
         'module': module,
         module: {'voice': voice}
                                                                          def test_load_with_extra_custom(self):
                                                                             my_config = {'key': 'value'}
```

```
config = ConfigurationLoader.load(my_config)
                                                                           ConfigurationManager.load defaults()
    self.assert_config(config)
                                                                           config = ConfigurationManager.get([self.config_path])
                                                                           self.assert_config(config, 'pt-br', 'espeak', 'f1')
    value = config.get('key', None)
    self.assertIsNotNone(value)
                                                                       Directory: intelora-
    self.assertEquals(value, my_config.get('key'))
                                                                       core/test/configuration/mycroft.conf
  def test load with invalid config type(self):
    self.assertRaises(TypeError, ConfigurationLoader.load,
                                                                        "lang": "pt-br",
'invalid_type')
                                                                        "tts": {
                                                                         "module": "espeak",
  def test_load_with_invalid_locations_type(self):
                                                                         "espeak": {
    self.assertRaises(TypeError, ConfigurationLoader.load,
                                                                          "voice": "f1"
              None, self.config_path)
  def test_load_with_invalid_locations_path(self):
    locations = ['./invalid/mycroft.conf',
'./invalid_mycroft.conf']
                                                                       Directory: intelora-
    config = ConfigurationLoader.load(None, locations,
                                                                       core/test/regex test/valid/multiple.rx
False)
    self.assertEquals(config, {})
                                                                       (?P<MultipleTest1>.*)
                                                                       (?P<MultipleTest2>.*)
class RemoteConfigurationTest(AbstractConfigurationTest):
  def test_validate_config(self):
                                                                       Directory: intelora-
                                                                       core/test/regex_test/valid/single.rx
      RemoteConfiguration.validate(self.create_config())
    except TypeError:
                                                                       (?P<SingleTest>.*)
      self.fail()
                                                                       Directory: intelora-core/test/skills/__init__.py
  def test_validate_config_with_invalid_config(self):
    self.assertRaises(TypeError,
                                                                       __author__ = 'seanfitz'
RemoteConfiguration.validate)
                                                                       Directory: intelora-core/test/skills/core.py
  def test load without remote config(self):
    config = self.create_config()
    self. assert Equals (Remote Configuration. load (config),\\
                                                                       import unittest
config)
                                                                       from os.path import join, dirname, abspath
                                                                       from re import error
class ConfigurationManagerTest(AbstractConfigurationTest):
  def test_load_defaults(self):
                                                                       from mycroft.skills.core import load_regex_from_file,
    ConfigurationManager.load_defaults()
                                                                       load regex. \
                                                                         load vocab from file, load vocabulary
self.assert_config(ConfigurationManager.load_defaults())
                                                                       from mycroft.util.log import getLogger
  def test load local(self):
                                                                         _author__ = 'eward'
    ConfigurationManager.load defaults()
                                                                       logger = getLogger( name )
    self.assert_config(ConfigurationManager.load_local())
  def test load local with locations(self):
                                                                       class MockEmitter(object):
    ConfigurationManager.load defaults()
                                                                         def __init__(self):
    config =
                                                                           self.reset()
ConfigurationManager.load_local([self.config_path])
    self.assert_config(config, 'pt-br', 'espeak', 'f1')
                                                                         def emit(self, message):
                                                                           self.types.append(message.type)
  def test_load_remote(self):
                                                                           self.results.append(message.data)
    ConfigurationManager.load_defaults()
                                                                         def get_types(self):
self.assert\_config(ConfigurationManager.load\_remote())
                                                                           return self.types
  def test_get(self):
                                                                         def get_results(self):
    ConfigurationManager.load_defaults()
                                                                           return self.results
    self.assert_config(ConfigurationManager.get())
                                                                         def reset(self):
  def test_load_get_with_locations(self):
                                                                           self.types = []
```

```
self.results = []
                                                                                           {'regex': '(?P<SingleTest>.*)'}])
                                                                              def test_load_regex_empty(self):
class MycroftSkillTest(unittest.TestCase):
                                                                                self.check regex(join(dirname( file ),
                                                                                              'wolfram_alpha'))
  emitter = MockEmitter()
  regex_path = abspath(join(dirname(__file__),
'../regex test'))
                                                                              def test_load_regex_fail(self):
  vocab_path = abspath(join(dirname(__file__),
                                                                                try:
'../vocab_test'))
                                                                                   self.check_regex(join(dirname(__file__),
                                                                                                'regex_test_fail'))
  def check_vocab_from_file(self, filename,
                                                                                except OSError as e:
vocab_type=None, result_list=[]):
                                                                                   self.assertEquals(e.strerror, 'No such file or directory')
    load_vocab_from_file(join(self.vocab_path, filename),
                                                                              def test_load_vocab_from_file_single(self):
vocab_type,
                 self.emitter)
                                                                                 self.check_vocab_from_file('valid/single.voc',
    self.check_emitter(result_list)
                                                                            'test_type',
                                                                                                [{'start': 'test', 'end': 'test_type'}])
  def check_regex_from_file(self, filename, result_list=[]):
    load_regex_from_file(join(self.regex_path, filename),
                                                                              def test_load_vocab_from_file_single_alias(self):
                                                                                self.check_vocab_from_file('valid/singlealias.voc',
self.emitter)
    self.check emitter(result list)
                                                                            'test_type',
                                                                                                 [{'start': 'water', 'end': 'test_type'},
  def check_vocab(self, path, result_list=[]):
                                                                                                 {'start': 'watering', 'end': 'test_type',
    load_vocabulary(path, self.emitter)
                                                                                                  'alias_of': 'water'}])
    self.check_emitter(result_list)
                                                                              def test_load_vocab_from_file_multiple(self):
  def check_regex(self, path, result_list=[]):
                                                                                self.check_vocab_from_file('valid/multiple.voc',
    load_regex(path, self.emitter)
                                                                            'test_type',
    self.check_emitter(result_list)
                                                                                                 [{'start': 'animal', 'end': 'test_type'},
                                                                                                 {'start': 'animals', 'end': 'test_type'}])
  def check_emitter(self, result_list):
    for type in self.emitter.get_types():
                                                                              def test_load_vocab_from_file_multiple_alias(self):
      self.assertEquals(type, 'register_vocab')
                                                                                self.check_vocab_from_file('valid/multiplealias.voc',
    self.assertEquals(sorted(self.emitter.get results()),
                                                                            'test_type',
               sorted(result list))
                                                                                                [{'start': 'chair', 'end': 'test type'},
    self.emitter.reset()
                                                                                                 {'start': 'chairs', 'end': 'test_type',
                                                                                                  'alias of': 'chair'},
  def test load regex from file single(self):
                                                                                                 {'start': 'table', 'end': 'test type'},
                                                                                                 {'start': 'tables', 'end': 'test type',
    self.check regex from file('valid/single.rx',
                    [{'regex': '(?P<SingleTest>.*)'}])
                                                                                                  'alias_of': 'table'}])
  def test_load_regex_from_file_multiple(self):
                                                                              def test_load_vocab_from_file_none(self):
    self.check_regex_from_file('valid/multiple.rx',
                                                                                self.check_vocab_from_file('none.voc')
                    [{'regex': '(?P<MultipleTest1>.*)'},
                     {'regex': '(?P<MultipleTest2>.*)'}])
                                                                              def test_load_vocab_from_file_does_not_exist(self):
                                                                                   self.check_vocab_from_file('does_not_exist.voc')
  def test load regex from file none(self):
    self.check regex from file('invalid/none.rx')
                                                                                except IOError as e:
                                                                                   self.assertEquals(e.strerror, 'No such file or directory')
  def test_load_regex_from_file_invalid(self):
                                                                              def test load vocab full(self):
       self.check_regex_from_file('invalid/invalid.rx')
                                                                                 self.check_vocab(join(self.vocab_path, 'valid'),
                                                                                           [{'start': 'test', 'end': 'single'},
    except error as e:
                                                                                           {'start': 'water', 'end': 'singlealias'},
      self.assertEquals(e.__str__(),
                 'unexpected end of regular expression')
                                                                                           {'start': 'watering', 'end': 'singlealias',
                                                                                            'alias_of': 'water'},
                                                                                           {'start': 'animal', 'end': 'multiple'},
  def test_load_regex_from_file_does_not_exist(self):
                                                                                           {'start': 'animals', 'end': 'multiple'},
       self.check_regex_from_file('does_not_exist.rx')
                                                                                           {'start': 'chair', 'end': 'multiplealias'},
                                                                                           {'start': 'chairs', 'end': 'multiplealias',
    except IOError as e:
       self.assertEquals(e.strerror, 'No such file or directory')
                                                                                            'alias of': 'chair'},
                                                                                           {'start': 'table', 'end': 'multiplealias'},
                                                                                           {'start': 'tables', 'end': 'multiplealias',
  def test_load_regex_full(self):
    self.check_regex(join(self.regex_path, 'valid'),
                                                                                            'alias_of': 'table'}])
              [{'regex': '(?P<MultipleTest1>.*)'},
               {'regex': '(?P<MultipleTest2>.*)'},
                                                                              def test_load_vocab_empty(self):
```

```
self.check_vocab(join(dirname(__file__),
'wolfram_alpha'))
                                                                       class IntentTestSequence(unittest.TestCase):
                                                                         __metaclass__ = IntentTestSequenceMeta
  def test load vocab fail(self):
                                                                         def setUp(self):
      self.check_regex(join(dirname(__file__),
                                                                           self.emitter = MockSkillsLoader(
                                                                              os.path.join(PROJECT_ROOT, 'mycroft',
                  'vocab_test_fail'))
    except OSError as e:
                                                                       'skills')).load skills()
      self.assertEquals(e.strerror, 'No such file or directory')
                                                                       if __name__ == '__main__':
                                                                         unittest.main()
Directory: intelora-
core/test/skills/discover_tests.py
                                                                       Directory: intelora-
                                                                       core/test/skills/scheduled_skills.py
import os
import glob
                                                                       from datetime import datetime, timedelta
import unittest
from test.skills.skill tester import MockSkillsLoader, SkillTest
                                                                       import unittest
__author__ = 'seanfitz'
                                                                       from mycroft.skills.scheduled_skills import ScheduledSkill
                                                                       from mycroft.util.log import getLogger
PROJECT ROOT =
os.path.dirname(os.path.dirname(__file__)
                                                                       __author__ = 'eward'
))
                                                                       logger = getLogger(__name___)
def discover_tests():
  tests = {}
                                                                       class ScheduledSkillTest(unittest.TestCase):
  skills = [
                                                                         skill = ScheduledSkill(name='ScheduledSkillTest')
    skill for skill
    in glob.glob(os.path.join(PROJECT_ROOT,
                                                                         def test_formatted_time_today_hours(self):
'mycroft/skills/*'))
                                                                            date = datetime.now() + timedelta(hours=2)
    if os.path.isdir(skill)
                                                                           self.assertEquals(self.skill.
                                                                       get_formatted_time(float(date.strftime('%s'))),
  for skill in skills:
                                                                                      "1 hours and 59 minutes from now")
    test_intent_files = [
      f for f
                                                                         def test_formatted_time_today_min(self):
      in glob.glob(os.path.join(skill,
                                                                           date = datetime.now() + timedelta(minutes=2)
'test/intent/*.intent.json'))
                                                                           self.assertEquals(self.skill.
    if len(test_intent_files) > 0:
                                                                       get_formatted_time(float(date.strftime('%s'))),
                                                                                      "1 minutes and 59 seconds from now")
      tests[skill] = test_intent_files
  return tests
                                                                         def test_formatted_time_days(self):
                                                                           date = datetime.now() + timedelta(days=2)
                                                                           self.assertEquals(self.skill.
class IntentTestSequenceMeta(type):
  def __new__(mcs, name, bases, d):
                                                                       get_formatted_time(float(date.strftime('%s'))),
    def gen_test(a, b):
                                                                                     date.strftime("%A, %B %d, %Y at %H:%M"))
      def test(self):
        SkillTest(a, b, self.emitter).run()
                                                                       Directory: intelora-
      return test
                                                                       core/test/skills/skills_tester.py
    tests = discover tests()
                                                                       import json
    for skill in tests.keys():
      skill_name = os.path.basename(skill)
                                                                       from pyee import EventEmitter
      for example in tests[skill]:
        example_name = os.path.basename(
                                                                       from mycroft.messagebus.message import Message
           os.path.splitext(os.path.splitext(example)[0])[0])
                                                                       from mycroft.skills.core import load_skills
        test_name = "test_IntentValidation[%s:%s]" %
(skill name,
                                                                       __author__ = 'seanfitz'
                                  example_name)
        d[test_name] = gen_test(skill, example)
    return type. new (mcs, name, bases, d)
                                                                       class RegistrationOnlyEmitter(object):
                                                                         def __init__(self):
```

```
self.emitter = EventEmitter()
                                                                        from mycroft.skills.pairing import PairingSkill
  def on(self, event, f):
    if event in [
      'register_intent',
                                                                        class PairingSkillTest(unittest.TestCase):
      'register_vocab',
                                                                          skill = PairingSkill()
      'recognizer_loop:utterance'
                                                                        Directory: intelora-
      self.emitter.on(event, f)
                                                                        core/test/skills/wolfram_alpha/__init__.py
  def emit(self, event, *args, **kwargs):
                                                                        import unittest
    event_name = event.type
                                                                        import wolframalpha
    self.emitter.emit(event_name, event, *args, **kwargs)
                                                                        from StringIO import StringIO
                                                                        from mycroft.skills.wolfram_alpha import WolframAlphaSkill
class MockSkillsLoader(object):
                                                                        from mycroft.util.log import getLogger
  def __init__(self, skills_root):
    self.skills_root = skills_root
                                                                        __author__ = 'eward'
    self.emitter = RegistrationOnlyEmitter()
                                                                        logger = getLogger(__name___)
  def load skills(self):
    load_skills(self.emitter, self.skills_root)
    return self.emitter.emitter # kick out the underlying
                                                                        class WolframAlphaTest(unittest.TestCase):
emitter
                                                                           skill = WolframAlphaSkill()
                                                                          @staticmethod
class SkillTest(object):
                                                                          def format_result(pod_id, text, pod_num):
  def __init__(self, skill, example, emitter):
                                                                            return "<queryresult>\
    self.skill = skill
                                                                             <pod id="" + pod_id + "" title = "" + pod_id + \
    self.example = example
                                                                                 "' position='" + pod_num + "'><subpod> \
    self.emitter = emitter
                                                                             <plaintext>" + text +
    self.returned_intent = False
                                                                        "</plaintext></subpod></pod></queryresult>"
  def compare intents(self, expected, actual):
                                                                          @staticmethod
    for key in expected.keys():
                                                                          def format_did_you_mean(text):
      if actual.get(key, "").lower() != expected.get(key,
                                                                            tree = "<queryresult><didyoumeans>"
"").lower():
                                                                            for result in text:
                                                                              tree += "<didyoumean>" + result + "</didyoumean>"
           "Expected %s: %s, Actual: %s" % (key,
                                                                            tree += "</didyoumeans></queryresult>"
expected.get(key),
                                                                            return tree
                             actual.get(key)))
         assert False
                                                                          def create_result(self, pod_id, value, pod_num):
                                                                            result = self.format_result(pod_id, value, pod_num)
  def run(self):
                                                                            return wolframalpha.Result(StringIO(result))
    example_json = json.load(open(self.example, 'r'))
    event = {'utterances': [example_json.get('utterance')]}
                                                                          def create_did_you_mean(self, text):
                                                                            test = self.format did you mean(text)
    def compare(intent):
                                                                            return wolframalpha.Result(StringIO(test))
      self.compare_intents(example_json.get('intent'),
intent.data)
                                                                          def test_result_pod(self):
      self.returned intent = True
                                                                            res = self.create result("Result", "7", '300')
                                                                            self.assertEquals(self.skill.get_result(res), "7")
    self.emitter.once(example_json.get('intent_type'),
compare)
                                                                          def test value pod(self):
    self.emitter.emit(
                                                                            res = self.create_result("Value", "2^3", '300')
      'recognizer_loop:utterance',
                                                                            self.assertEquals(self.skill.get_result(res), "2^3")
      Message ('recognizer\_loop:utterance', event))
    if not self.returned_intent:
                                                                          def test_notable_facts_pod(self):
      print("No intent handled")
                                                                             res = self.create_result("NotableFacts:PeopleData",
      assert False
                                                                                           "PeopleData", '300')
                                                                            self.assertEquals(self.skill.get result(res), "PeopleData")
Directory: intelora-
core/test/skills/pairing/__init__.py
                                                                          def test_basic_information_pod(self):
                                                                            res = self.create result("BasicInformation:PeopleData",
                                                                                          "Born in 1997", '300')
import unittest
```

```
self.assertEquals(self.skill.get result(res), "Born in
1997")
                                                                                'utterance': 'who is abraham lincoln',
                                                                                'parsed_question': {
  def test decimal approximation pod(self):
                                                                                  'QuestionWord': 'who',
    res = self.create_result("DecimalApproximation",
                                                                                   'QuestionVerb': 'is',
"5.6666666666", '300')
                                                                                   'Query': 'abraham lincoln'
    self.assertEquals(self.skill.get result(res), "5.666")
  def test_definition_pod(self):
    res = self.create_result("Definition:WordData",
                                                                                'utterance': 'what are they',
                   "a cat is a feline", '300')
                                                                                'parsed_question': {
    self.assertEquals(self.skill.get_result(res),
                                                                                   'QuestionWord': 'what',
              "a cat is a feline")
                                                                                  'QuestionVerb': 'are',
                                                                                   'Query': 'they'
  def test_numbered_pod(self):
                                                                                }
    res = self.create_result("MathConcept", "tangrams are
objects", '200')
    self.assertEqual(self.skill.get_result(res),
                                                                                'utterance': 'when was this',
              "tangrams are objects")
                                                                                'parsed_question': {
                                                                                  'QuestionWord': 'when',
                                                                                  'QuestionVerb': 'was',
  def test invalid pod(self):
    res = self.create_result("InvalidTitle", "Test", '300')
                                                                                   'Query': 'this'
    self.assertEquals(self.skill.get_result(res), None)
                                                                              },
  def test_whitespace_process(self):
    self.assertEquals(self.skill.process_wolfram_string
                                                                                'utterance': 'why were they there',
              ("Test string"), "Test string")
                                                                                'parsed_question': {
                                                                                   'QuestionWord': 'why',
  def test_pipe_process(self):
                                                                                  'QuestionVerb': 'were',
                                                                                   'Query': 'they there'
    self.assertEquals(self.skill.process_wolfram_string
              ("Test | string"), "Test, string")
  def test_newline_process(self):
                                                                                'utterance': 'which is the thing',
    self.assertEquals(self.skill.process wolfram string
              ("Test\nstring"), "Test, string")
                                                                                'parsed question': {
                                                                                   'QuestionWord': 'which',
  def test_factorial_process(self):
                                                                                   'QuestionVerb': 'is',
    self.assertEquals(self.skill.process wolfram string
                                                                                   'Query': 'the thing'
              ("Test!"), "Test,factorial")
  def test_find_did_you_mean_exists(self):
    values = ['search for power', 'power']
                                                                                'utterance': 'who saw abraham lincoln',
    res = self.create_did_you_mean(values)
                                                                                'parsed_question': {
    self.assertEquals(self.skill. find did you mean(res),
                                                                                  'QuestionWord': 'who',
                                                                                   'QuestionVerb': 'saw',
              values)
                                                                                   'Query': 'abraham lincoln'
  def test_find_did_you_mean_none(self):
                                                                                }
    res = self.create did you mean([])
                                                                             }.
    self.assertEquals(self.skill._find_did_you_mean(res), [])
                                                                                'utterance': 'what began life',
                                                                                'parsed question': {
Directory: intelora-
                                                                                   'QuestionWord': 'what',
core/test/skills/wolfram_alpha/english_questi
                                                                                  'QuestionVerb': 'began',
on_parser_test.py
                                                                                  'Query': 'life'
                                                                                }
import unittest
from mycroft.skills.wolfram alpha import
                                                                                'utterance': 'where sat the person',
EnglishQuestionParser
                                                                                'parsed_question': {
                                                                                  'QuestionWord': 'where',
__author__ = 'wolfgange3311999'
                                                                                  'QuestionVerb': 'sat',
                                                                                   'Query': 'the person'
                                                                                }
class EnglishQuestionParserTest(unittest.TestCase):
  parser = EnglishQuestionParser()
  test_jsons = [
                                                                                'utterance': 'i like stuff',
```

```
'parsed_question': None
       'utterance': 'what\'s a dog',
       'parsed_question': {
    'QuestionWord': 'what',
    'QuestionVerb': '\'s',
         'Query': 'a dog'
    },
    {
       'utterance': 'who did this',
       'parsed_question': {
         'QuestionWord': 'who',
         'QuestionVerb': 'did',
         'Query': 'this'
      }
    }
  deftest\_question\_parsing(self):
    for test_json in self.test_jsons:
       parsed_question =
self.parser.parse(test_json['utterance'])
       self.assertEquals(parsed_question,
test_json['parsed_question'])
```