

Google ?????? (Automatic Speech Recognition [ASR](#))

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- [Google Cloud Speech API](#)

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2017/12/3:

???????????? 60 ?????? [https://cloud.google.com/speech/?hl=zh\\_TW](https://cloud.google.com/speech/?hl=zh_TW)

2015/5/22:

?? Google ?????????? ASR API????? [Chrome-Dev Group](#) ???? API Key????????????? [Adding Speech Recognition to Incredible PBX?](#)

?????<http://zaf.github.com/asterisk-speech-recog/>

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- Perl
- perl-libwww Perl ???
- flac ????
- ????

??????? Asterisk based ??

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- [Speech Recognition for Asterisk?????????](#)
- [Creating an API Key for Google Speech Recognition](#)
- Microsoft API
  - ? [Speaker Recognition API](#)
  - ? [Speech synthesis for Asterisk using Microsoft Translator](#)
  - ? ?????<https://www.microsoft.com/cognitive-...-us/speech-api>
- [IBM's Speech Recognition Engine Comes to Asterisk](#)

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**agi(speech-recog.agi,[lang],[timeout],[intkey],[NOBEEP])**

Records from the current channel until 3 seconds of silence are detected (this can be set by the user by the 'timeout' argument, -1 for no timeout) or the interrupt key (# by default) is pressed. If NOBEEP is set, no beep sound is played back to the user to indicate the start of the recording.

The recorded sound is sent over to Google's speech recognition service and the returned text string is

assigned as the value of the channel variable 'utterance'. The script sets the following channel variables:

status : Return status. 0 means success, non zero values indicating different errors.

id : Some id string that google engine returns, not very useful(?).

utterance : The generated text string.

confidence : A value between 0 and 1 indicating the probability of a correct recognition. Values bigger than 0.95 usually mean that the resulted text is correct.

????(??)

- English (en-US)
- Afrikaans
- Arabic
- Chinese (zh-TW)
- Czech
- Dutch
- French
- German
- Hebrew
- Italian
- Indonesian
- Japanese
- Korean
- Latin
- Malaysian
- Polish
- Portuguese
- Russian
- Spanish
- Turkish
- Yue Chinese (Traditional Hong Kong)
- Zulu

**Dialplan ??**

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;;Simple speech recognition

exten => 1234,1,Answer()

exten => 1234,n,agi(speech-recog.agi,en-US)

exten => 1234,n,Verbose(1,The text you just said is: \${utterance})

exten => 1234,n,Verbose(1,The probability to be right is: \${confidence})

exten => 1234,n,Hangup()

???

;;Speech recognition demo:

exten => 1235,1,Answer()

exten => 1235,n,agi(googletts.agi,"Say something in English, when done press the pound key.",en)

```
exten => 1235,n(record),agi(speech-recog.agi,en-US)
exten => 1235,n,Verbose(1,Script returned: ${status} , ${id} , ${confidence} , ${utterance})
```

```
;Check return status:
```

```
exten => 1235,n,GotoIf("${status}" = "0"?success:fail)
```

```
;Check the probability of a successful recognition:
```

```
exten => 1235,n(success),GotoIf("${confidence}" > "0.8"?playback:retry)
```

```
;Playback the text:
```

```
exten => 1235,n(playback),agi(googletts.agi,"The text you just said was...",en)
```

```
exten => 1235,n,agi(googletts.agi,"${utterance}",en)
```

```
exten => 1235,n,goto(end)
```

```
;Retry in case speech recognition wasn't successful:
```

```
exten => 1235,n(retry),agi(googletts.agi,"Can you please repeat more clearly?",en)
```

```
exten => 1235,n,goto(record)
```

```
exten => 1235,n(fail),agi(googletts.agi,"Failed to get speech data.",en)
```

```
exten => 1235,n(end),Hangup()
```

```
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```

```
???GV ??????????http://nerdvittles.com/?p=813
```

```
; SMS Dictator for AsteriDex
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```
exten => 767,1,Answer
```

```
exten => 767,n,Wait(1)
```

```
exten => 767,n(record),Flite("After the beep. I will record your S.M.S message. When you're finished.
press the pound key.")
```

```
exten => 767,n,agi(speech-recog.agi,en-US)
```

```
exten => 767,n,Noop(= Script returned: ${status} , ${id} , ${confidence} , ${utterance} =)
```

```
exten => 767,n,Flite("I think you said: ${utterance}")
```

```
exten => 767,n,Flite("If this is correct. press 1.")
```

```
exten => 767,n,Flite("To start over. press 2.")
```

```
exten => 767,n,Flite("To cancel and hang up. press 3.")
```

```
exten => 767,n,Read(MYCHOICE,beep,1)
```

```
exten => 767,n,GotoIf("${foo${MYCHOICE}" = "foo1"?continue)
```

```
exten => 767,n,GotoIf("${foo${MYCHOICE}" = "foo2"?record)
```

```
exten => 767,n,Playback(goodbye)
```

```
exten => 767,n,Hangup
```

```
exten => 767,n(continue),Set(SMSMSG=${utterance})
```

```
exten => 767,n(pickcontact),Flite("At the beep say the name of the person or company you wish to contact.
Then press the pound key.")
```

```
exten => 767,n,agi(speech-recog.agi,en-US)
```

```
exten => 767,n,Noop(= Script returned: ${status} , ${id} , ${confidence} , ${utterance} =)
```

```
exten => 767,n,AGI(nv-callwho.php,${utterance})
```

```
exten => 767,n,NoOp(Number to call: ${NUM2CALL})
```

```
exten => 767,n,GotoIf("${foo${NUM2CALL}" = "foo0"?pickcontact)
```

```
exten => 767,n,Flite("Sending S.M.S message. One moment please.")
```

```
exten => 767,n,System(gvoice -e GVname@gmail.com -p GVpassword send_sms ${NUM2CALL}  
"${SMSMSG}")
```

```
exten => 767,n,Flite("S.M.S message has been sent. Good bye.")
```

```
exten => 767,n,Hangup
```