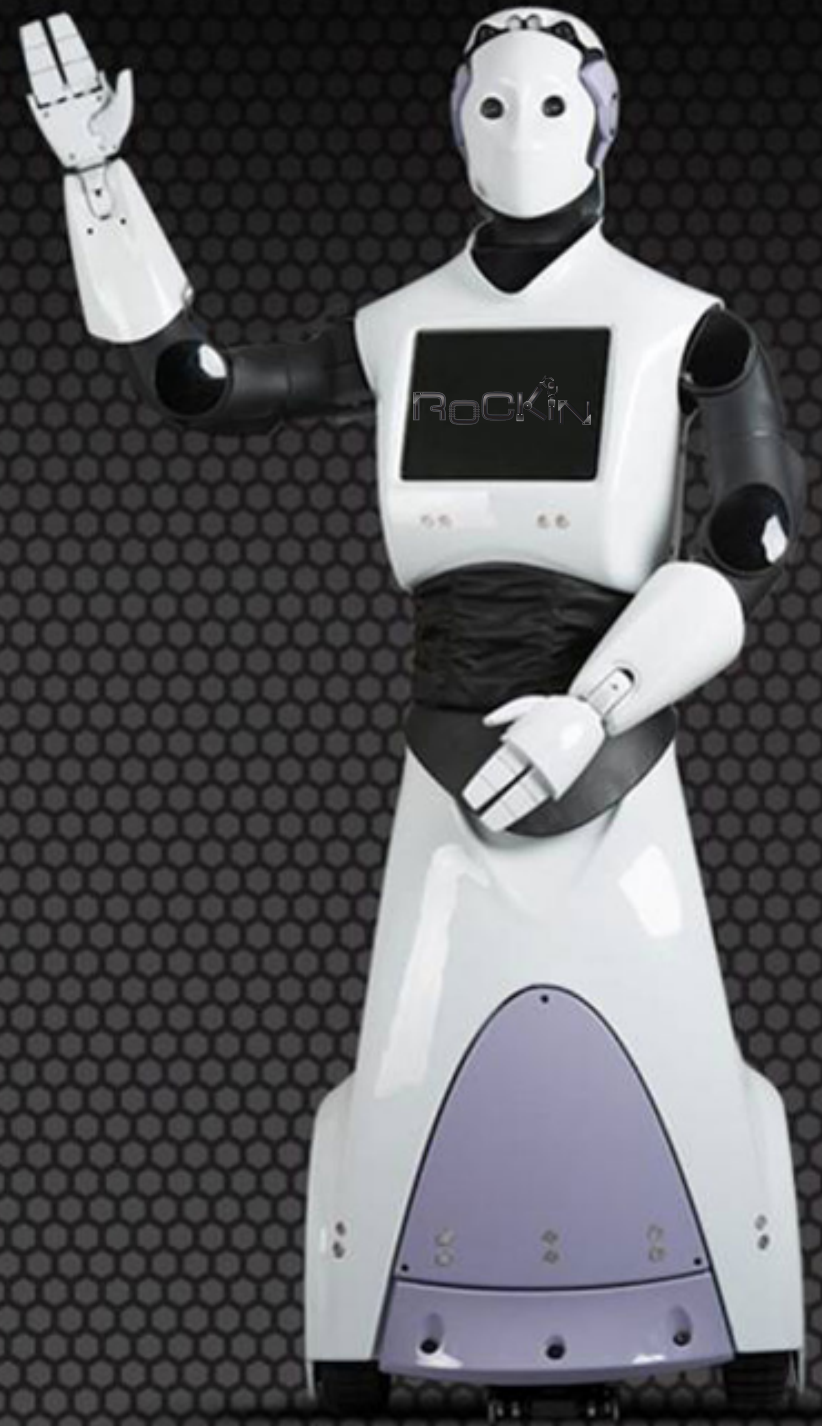


PAL Robotics

How to do speech recognition
and text to speech on REEM

Rockin Camp, Rome, January 2014



PAL Robotics

1. PREREQUISITES
2. HOW-TO
3. QUESTIONS



1- PREREQUISITES

- **WIFI NETWORK:**
 - SSID: rockinreem
 - Password: rockincamp
- **ROS_MASTER_URI**
 - export ROS_MASTER_URI=<http://reemh3-2c:11311>
- **SSH**
 - ssh pal@reemh3-2c
 - Password: pal
 - addLocalDns -u YOUR_USERNAME -i YOUR_IP

You will need [pal_msgs](#)

```
cd ~/catkin_ws/src
```

```
git clone https://github.com/pal-robotics/pal\_msgs.git
```

```
cd ..
```

```
catkin_make
```

Also a PAL operator should have activated the speech recognition service beforehand doing:

```
ssh root@reemh3-2m  
speechRecognizerStart.sh
```



2- HOW-TO TTS

- TTS action server:
 - /sound
 - `roslaunch actionlib axclient.py /sound`
text: 'here we are at rockin camp'
lang_id: "
wait_before_speaking:
secs: 0
nsecs: 0
- Python code snippet [tts.py](#) from rockin_snippets



2- HOW-TO SPEECH RECOGNITION

- Speech recognition service and topic

- /asrservice

- Enable grammar

- rosservice call /asrservice "asrupdate: {language: 'en_us', enable_grammar: 'uat', disable_grammar: ''}, acousticenv: '', active: true}"

- Disable grammar (before using another one you must do this)

- rosservice call /asrservice "asrupdate: {language: 'en_US', enable_grammar: '', disable_grammar: 'uat', acousticenv: '', active: false}"

- /usersaid

- rostopic echo /usersaid

```
text: how are you
confidence: 1
start:
  secs: 0
  nsecs: 0
end:
  secs: 0
  nsecs: 0
tags:
-
  key: external
  value: 1
```



3- QUESTIONS



Thank you for your attention!



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