



# Dialog Engine

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# qiChat - The dialog description language

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- Easy regular expression
- Bijection with speech recognition. What is written is understood
- Optional remote speech recognition (free speech)
- Contextual
- Multi-modal: manage words, event, variable
- Output can merge: voice, animations, voice modification



Authors: D. Houssin (ALD)



# qiChat syntax

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- Concept  
concept:(fruit) [banana apple tomato]  
u:(i ~want ~fruit) you want a fruit
- Store variable  
u:(i ~want \_~fruit) you want \$1
- Event  
u:(e:PeopleSmiling) i like when you smile

# User database

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- All user data are restored when robot see you  
concept:(name) [Eddy John]  
u:(my name is \_~name) hello \$1 \$user/name = \$1  
#user/name is the variable name

u:(hello) hello \$user/name

- Complete unknown data (require specific contract for Nuance use)  
u:(my name is \_\*) hello \$1 \$user/name = \$1



# Matching

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- Phonetic matching  
u:(hello)  
can match user sentence “yell oh”
- Semantic matching base on wikipedia corpus.  
Same algorithm than google.

u:(play music)  
can match “play rock” (depends on corpus used)

# Support all speech recognition languages

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Namely:

- Italian
- English
- French
- German
- Spanish
- Chinese (Mandarin)
- Korean
- Japanese



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# Robot output

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- Simple text (body language is automatic)  
u:(hello) hello
- Explicit animation call  
u:(hello) ^start(hello) hello ^wait(hello)
- Animation before text  
u:(hello) ^start(hello) ^wait(hello) hello

# Multilanguage dialog editor in Choregraphe

Applications Raccourcis jeu. 2 août, 10:05 David Houssin

screenshot\* - Choregraphe [DEBUG] (Connected to 10.0.252.207)

File Box library Edit Connection View Help

Box libraries

- standard
- Audio
  - Sound
  - Voice
    - Animated Say
    - Choice
    - Say
    - Set Language
    - Speech Reco.
- Communication

Project content

- behavior.xar
- introduction\_jp.top
- introduction\_jp.ts

Behavior manager

Behaviors

- .currentChoregraph...
- WebControl\_SitDo...
- WebControl\_Stand...
- WebControl\_Take...
- call
- dialog
- dialogbox
- dialogt
- dialogue-demonstr...
- ebullition
- eggIn
- go-to-rest

Script editor

introduction\_jp.top

```
# Hello, Good afternoon
u:(こんにちは)
^start(BowShort_1) こんにちは ^wait(BowShort_1)

# Goodbye
u:([さよなら さようなら "{それ}では" "{また}あとで{ね}" "バイバイ" "じゃあ{また}{ね}")
^start(BowShort_1) $1 $nameuser ^wait(BowShort_1)

# Good Morning
u:([おはようございます おはよう グッドモーニング])
^start(BowShort_1) $1 ^wait(BowShort_1)

# Good Evening
u:(こんばんは)
^start(BowShort_1)こんばんは ^wait(BowShort_1)

# My name is
u:(-[の]名前はは[_-]names [{"とって"}[言う 言います 申す 申します "言われて}{る}ます"]]{ん}{のです}だ{よ})
^start(You_4) $1 さんですか、いい名前ですね $nameuser=$1 ^wait(You_4)

# Nice to meet you
u:(-[どうも]初めまして" {どうぞ}よろしく{[お願いします お願い]})
^start(BowShort_1) $1 ^wait(BowShort_1)

# What is your name?
u:(["-you の名前は 何 {だ}です {か}"
"-you [の名前は は] 何{とって} [言う 言います 申す 申します おっしゃる おっしゃいます] {ん} {だ}です {か}"
])
^start(Me_2) [僕の名前はたろです 僕はたろです] ^wait(Me_2)

# How are you?, How are you feeling today?
u:(["-you "-you の "-you は"] [{"今日 現在 今} {の}"] [調子 気分 お元気 元気 具合 機嫌 どう] {はどう} はいかが {です しょう} か)
^start(Me_1) [元気 いい気分 調子がいい] ですよ、 ^start(You_1) あなたも元気ですか ^wait(You_1)
a:([はい はい そうです]) よがったね
a:([はい] [元気 いい気分 調子がいい] です {よ}) よがったね
a:([いいえ]) 残念ですね、早く、よくなって下さい
a:([いいえ]) ["調子悪い{です}" 元気じゃない 悪い気分 "気持ち {悪い 悪いです}"] 残念ですね、早く、よくなって下さい

# Nice weather today
u:([今日 今日は 最近 最近は] [{"すこく 気持ち} いい] "よい すばらしい 悪い へんな おかしい" [お天気 天気 天候] {だ}です {ね な})
^start(Enthusiastic_4) [確かに そうですね、 $1 天気です ^wait(Enthusiastic_4)
#####
```

Ln 64 Find:



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# User choose collaborative dialog or not

- Content can be improved by different users. Updates are made by the Aldebaran Cloud service
- Choregraphe option to mark as a collaborative dialog
- Goal: Allow other users to start your applications

