ZoraBots

Managing Behaviors

Version 1

10/01/2018

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1   Preface

This document will describe the rules for creating your own behavior, so it is compatible with Zora- or Pepper-Control.

Contents

2 Installing Choregraphe

By using Choregraphe, your own behavior can be made. Before installing it however, make sure the correct version of Choregraphe and NaoQi are used.
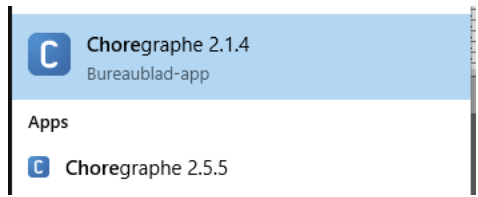For example: Pepper uses naoqi v5.5 and must be managed by Choregraphe v5.5.

2.1 Installing Choregraphe

This software is required to open the files sent to you by our team and deploy the software on the robot.

Step 1 – Download the required software from the website. The website containing the software	The website containing the file and key is: https://developer.softbankrobotics.com/us-en/downloads/nao-v5-v4 Select the package corresponding to your Operating System.
Step 2 – Follow the installation instructions	Enter the key (provided on the website) when asked, and follow the required steps to install the software.

3 Creating your own behavior

As stated before, Choregraphe is used to manage behaviors on the robot. To create your own project in Choregraphe, use the following steps:

Step 1 – Open Choregraphe compatible with the robot By opening Choregraphe, a new project is automatically started.	

3.1 Adjusting the settings

Once the project has been created, it must be adjusted to Zora- or Pepper-Control.

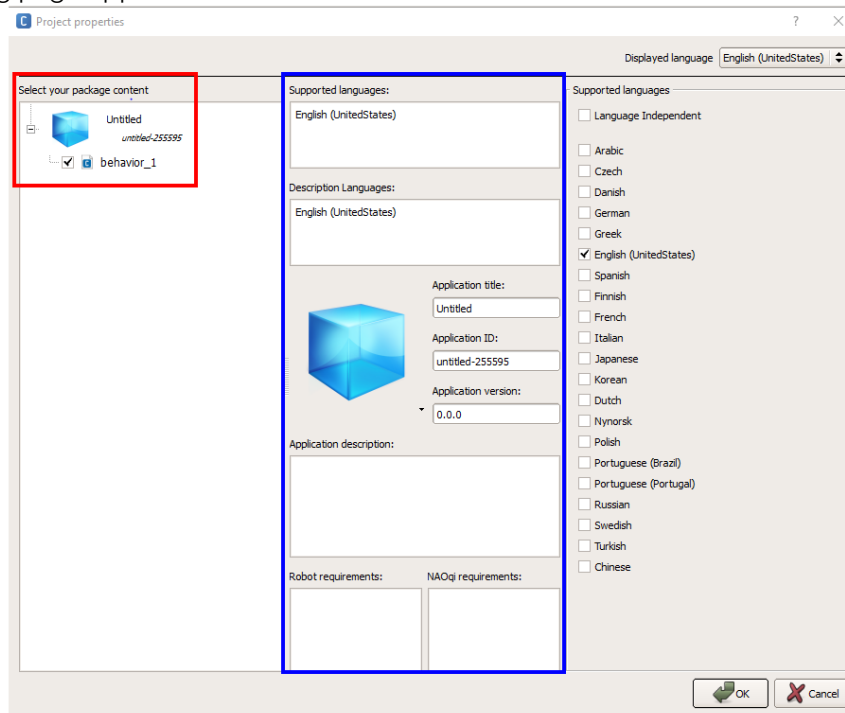The following steps should be taken to adjust these settings:

|	
Step 1 – Open the Properties of the project On the left side of the screen, select properties from the screen. If this is not visible, select '**Project Content**' from the **'View'-menu** to make this item visible again.	

The following page appears:

Step 2 – Select the behavior(s) to be added On the left side of the properties-screen, the package content is shown. Select the behavior(s) to be added to the project.	
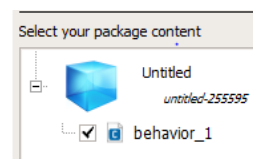
Step 3 – Select the languages for which the behavior(s) will be added.

By clicking a field in the middle of the screen, the right side will show the available options for this field.

By selecting the option 'Language independent' at the right side of the screen, this behavior **can** be added to the Control in any language.

Currently (v8.0), the languages supported by Zora are:

Arabic, German, English (US, unfortunately), Finnish, French, Italian, Japanese, Dutch and Chinese

Supported languages:		Description Languages
English (UnitedStates)		☐ Select All
		☐ Arabic
		☐ Czech
Description Languages:		☐ Danish
English (UnitedStates)		☐ German
		☐ Greek
		☑ English (UnitedStates)
	Application title:	☐ Spanish
	Untitled	☐ Finnish
		☐ French
	Application ID:	☐ Italian
	untitled-255595	☐ Japanese
		☐ Korean
	Application version:	☐ Dutch
	0.0.0	☐ Nynorsk
		☐ Polish
Application description:		☐ Portuguese (Brazil)
		☐ Portuguese (Portugal)
		☐ Russian
		☐ Swedish
		☐ Turkish
Robot requirements: NAOqi requirements:		☐ Chinese

Step 4 – Select the description languages

These languages must be the same as the Supported Languages.

Normally, by selecting the correct supported language, the description languages are automatically filled in

If the option 'Language independent' has been selected however, the description languages must be selected manually.

Of course, the option **'Select All'** at the top works as well.
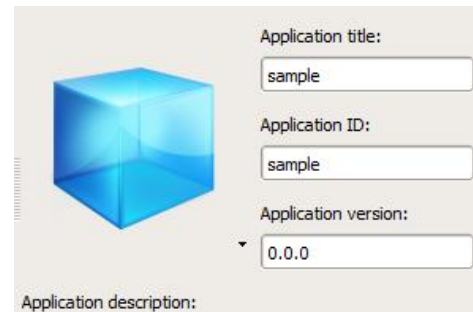
Supported languages:		Description Languages
Language Independent		☐ Select All
		☑ Arabic
		☐ Czech
Description Languages:		☐ Danish
English (UnitedStates) - Arabic - German - Finnish - French - Italian - Japanese - Dutch - Chinese		☑ German
		☐ Greek
		☑ English (UnitedStates)
	Application title:	☐ Spanish
	Untitled	☑ Finnish
		☑ French
	Application ID:	☑ Italian
	untitled-255595	☑ Japanese
		☐ Korean
	Application version:	☑ Dutch
	0.0.0	☐ Nynorsk
		☐ Polish
Application description:		☐ Portuguese (Brazil)
		☐ Portuguese (Portugal)
		☐ Russian
		☐ Swedish
		☐ Turkish
Robot requirements: NAOqi requirements:		☑ Chinese

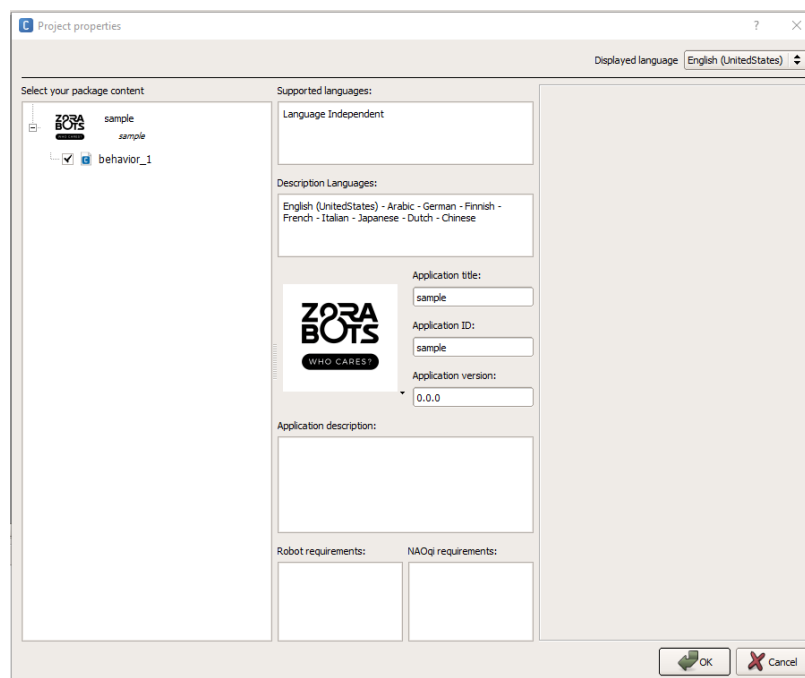|	

Step 5 – Adjust the Application Title and Application ID.
 	
By selecting the Application title, the multiple titles of this application are shown.
 	
Just inputting one value as a title is enough (fortunately). Make sure no capitals are used thought, as the Application ID needs to be the same.
 	
Make sure the Application ID is the same as the title.
	Application title:
	`sample`
	
	Application ID:
	`sample`
	
	Application version:
	`0.0.0`
	
	Application description:

Step 6 – Select a **PNG-file** as an icon for the behavior. By selecting the icon, the menu to select a new image or use the system default is shown. By clicking the 'Browse'-button, a PNG-file can be selected that will be used as image for the behavior.	Browse... Clear ption:
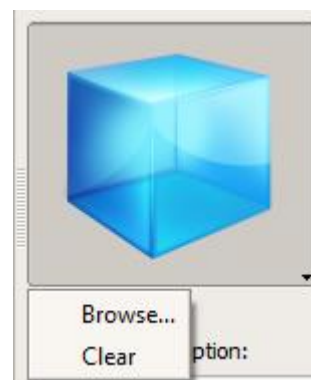
Once everything is said and done, the following properties should be shown for the behavior:
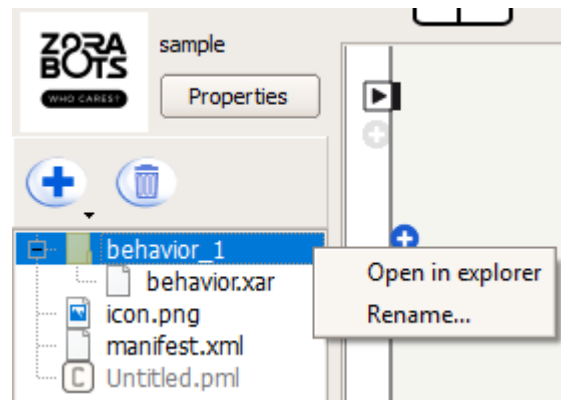
Step 7 – Change the name of the folder

One final step is needed, specifically changing the name of the folder containing the behavior. This should be altered to match the title/ID of the behavior.

By right clicking the name of the behavior, it is possible to rename it **to match the name of the behavior.**
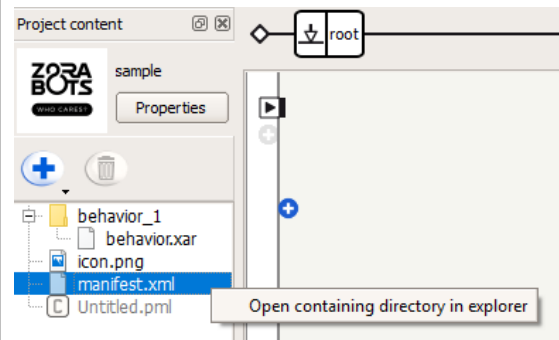
3.2   Checking the settings

After the settings are properly filled in, a final check is needed. This is done by examining the **manifest.xml**-file of the project.

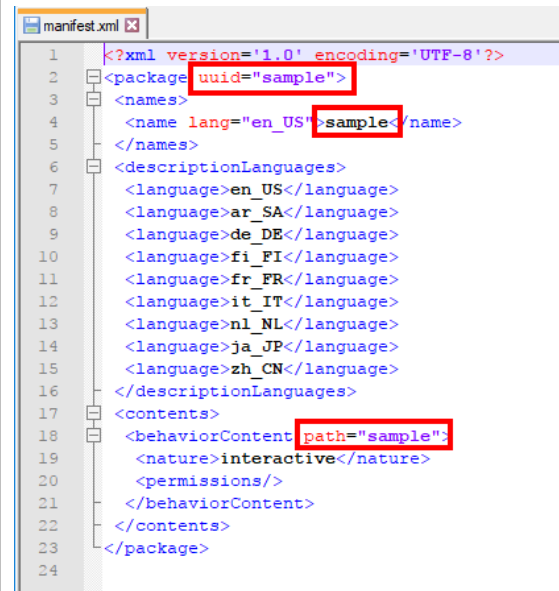|	
Step 1 – Open manifest.xml on the disc By right-clicking the file, the containing directory will be opened on the computer. By opening the file with notepad++ (or something similar), the settings can be checked.	

Step 2 – Check manifest.xml
 	
The following items should have the same name:
 	
   -   UUID
 	
   -   Title (names)
 	
   - Path-name	

Once this is all in order, the project can be saved as a **PML-file** on the computer.

4   Installing the behavior

Once a behavior is created and adjusted to be compatible with Zora- or Pepper-Control, it may be uploaded to the robot.

4.1   *Installing the behaviors on the robot*

Once the software is installed, the **pml-**file can be opened in Choregraphe.
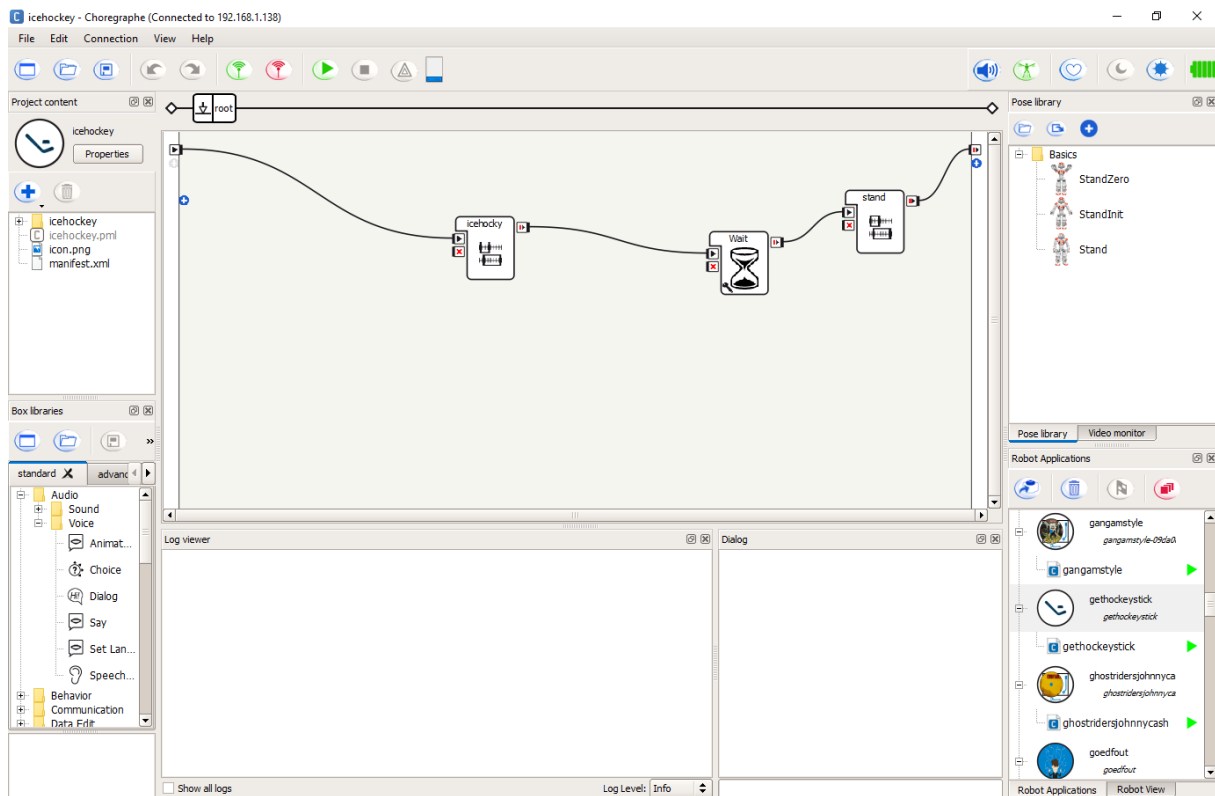
Step 1 – Open Choregraphe and connect to the robot.

By clicking the 🌳 icon in the top menu bar, a popup will open where the IP-address of the robot must be entered in the top right corner.

If multiple Zora's are present in the network, **double check** if the correct Zora has been selected (by using the camera of saying something through Zora-Control)
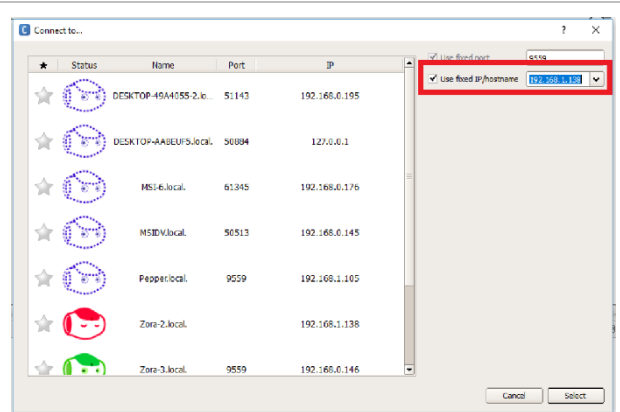
Step 2 – Open the PML-file if needed.

By clicking the 📁 icon in the top left corner of the menu-bar, the sent PML-files can be selected, in their respective folders.
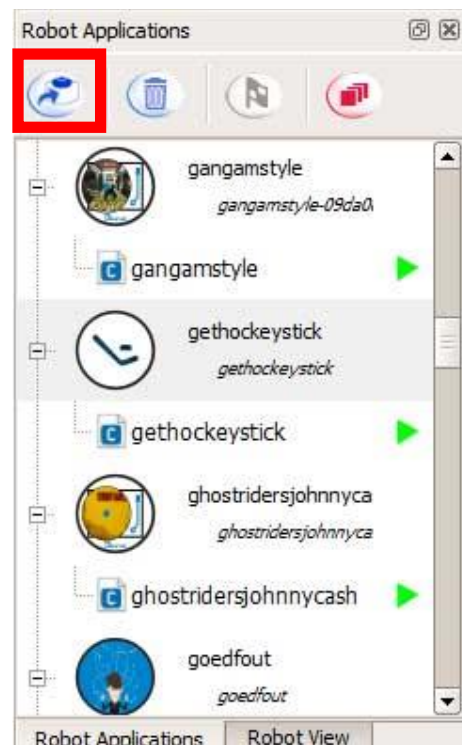
By selecting the project-folder, the PML-file can be selected in the **first folder** down.
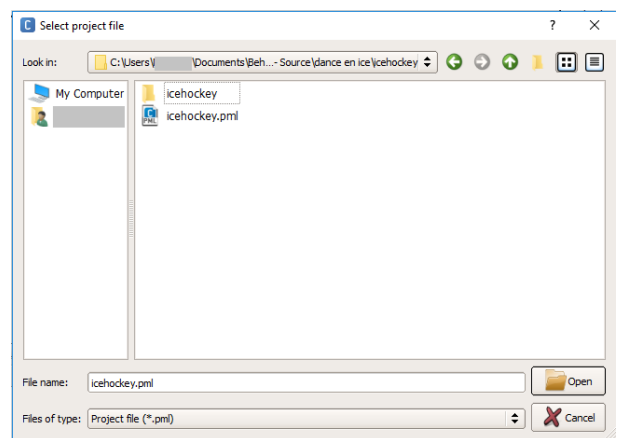
Step 3 – Upload the behavior to the robot

By selecting the 🔄 icon in the **Robot Application**-tab, the selected project file can be installed on the robot.

If this category is not visible, it can be selected once more by using the **menu,** selecting **'View'** and selecting **'Robot Applications'.**

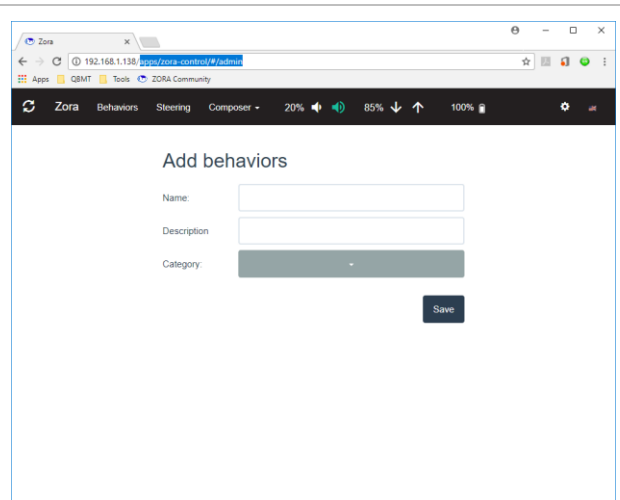# 5 Linking the behavior in Zora- or Pepper-Control.

Once the previous steps have been completed, the behavior can be run from Choregraphe. To run the program from Zora-Control, an additional step is needed, specifically linking the installed behavior to a category.

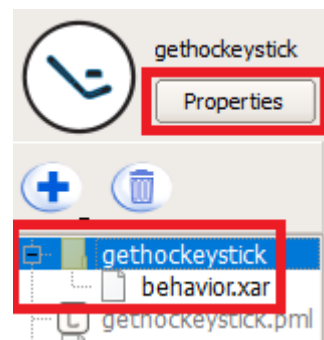|	
Step 1 – Open the admin-page of Zora-Control Enter the following link into the address bar of Google Chrome: http://ipofyourrobot/apps/zora-control/#/admin Replace the ipofyourrobot by the robot's current IP address. (see the example).	
Step 2 – Fill in the name of the behavior and the category. The format for entering the behavior in the admin-page is the following: **'Application ID'/'Map-name containing the behavior.xar-file'**. The Application ID can be found in the 'Properties page. The path can be found in the location: As an example, the Name of the behavior is **gethockeystick/gethockeystick** and the category would be **Moving with Zora.** The field description contains the **display-name** that will be shown in Zora-Control of the behavior. By clicking the save-button, the behavior can be accessed from Zora-Control in the selected category.	