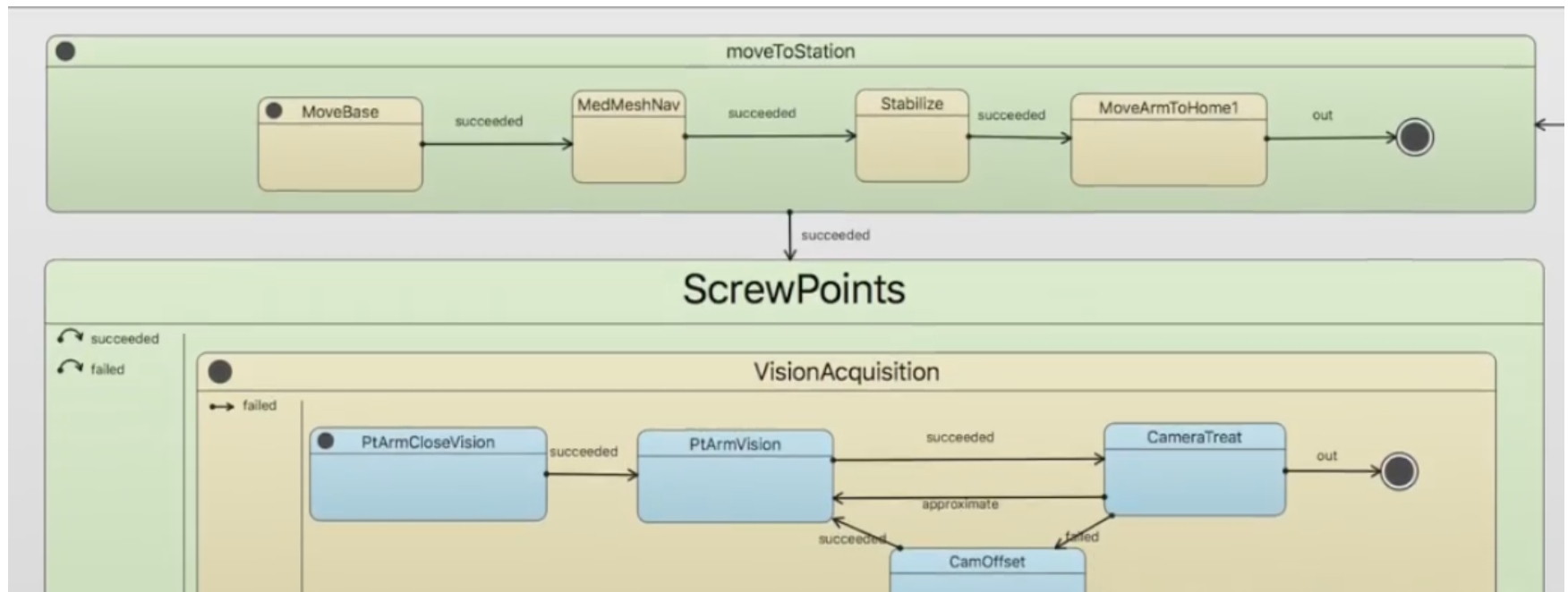


SCXML INTERPRETER

A SMACH FRAMEWORK EXTENSION

Fraunhofer IPA - Ludovic DELVAL

ROSCON 2018 - Madrid



SMACH State Machine Framework

Python State Machine Framework with great ROS functionalities.

Pros:

- Easy to create and run state machines
- Stable
- ROS integration (Introspections, Action States, ...)

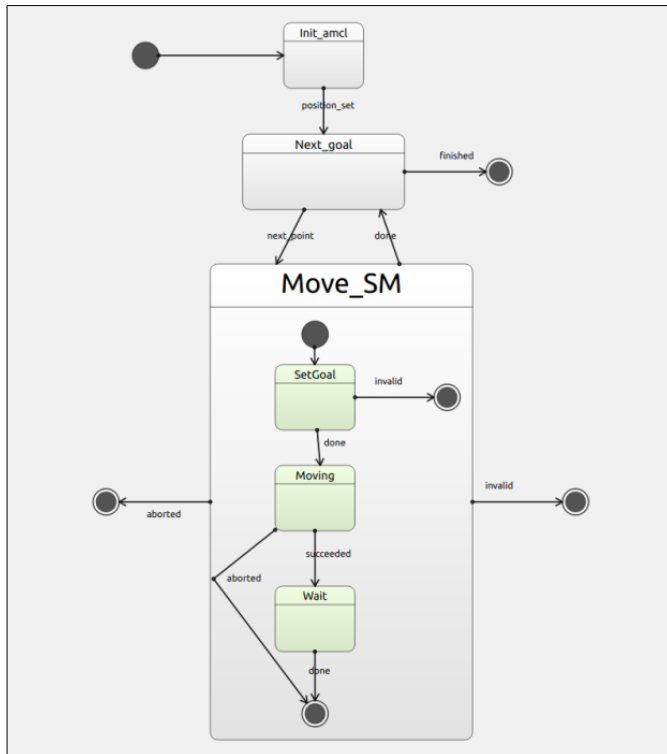
Cons:

- Difficult to maintain complex state machine (50+ states)
- States Reusability issues
- Non-accessible for non Python-user

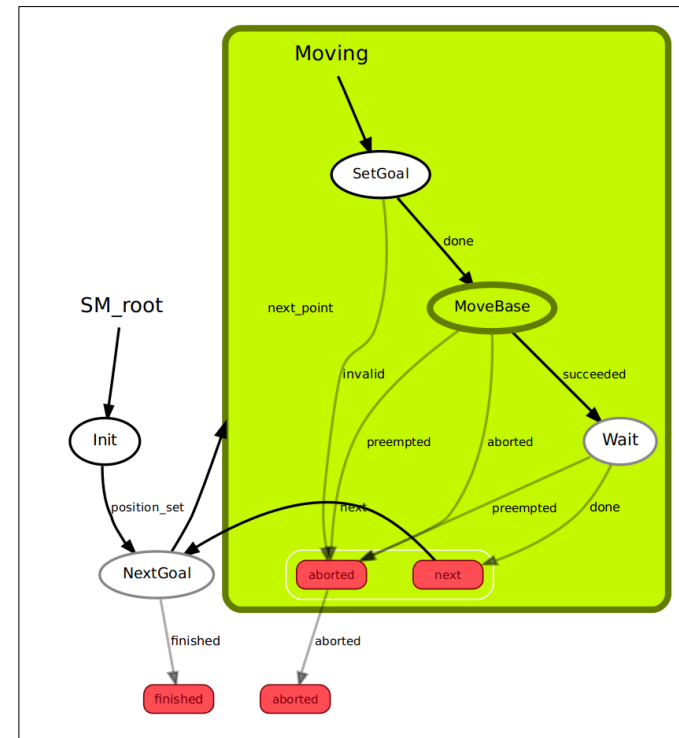
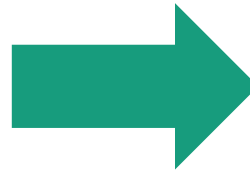
SCXML Interpreter Framework

Making SMACH State machine easier to create/manage.

Using SCXML standard to create SMACH State Machine.

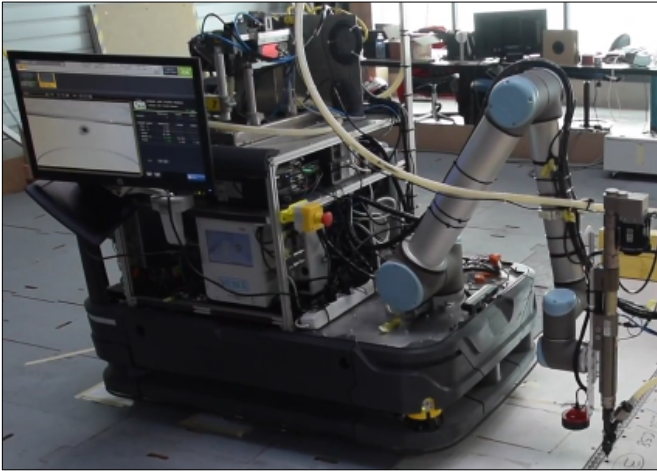


GUI assisted creation

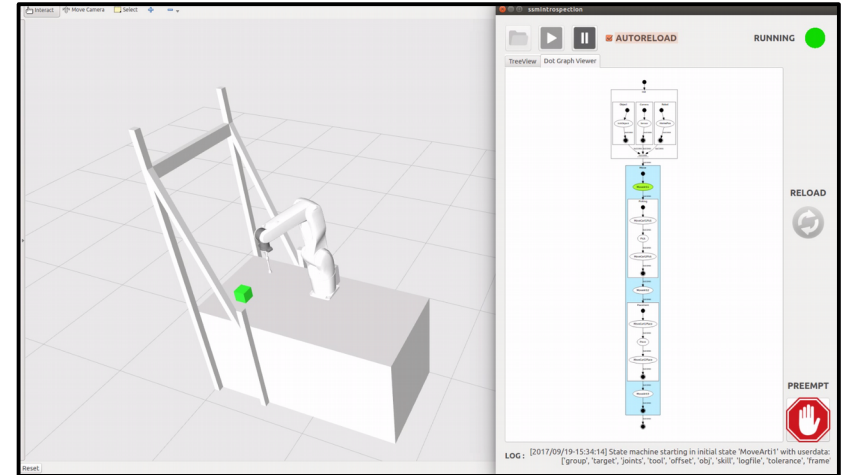


SCXML to SMACH auto-mapping

Already used in:



**AIRBUS Autonomous
screwdriving**



**ROS-I Pick and place
demonstrator**



**European Project :
ScalABLE4.0**

Thank you

SCXML Interpreter available HERE:

https://github.com/ScalABLE40/scxml_interpreter

QT SMACH Viewer (with reworked Introspection):

https://github.com/ipa-led/qt_smach_viewer