## smacc::ISmaccClientBehavior stateMachine - currentState - currentOrthogonal + ISmaccClientBehavior() + ~ISmaccClientBehavior() + getStateMachine() + getName() + requiresClient() + requiresComponent() # runtimeConfigure() # onEntry() # onExit() # postEvent() # postEvent() # getCurrentState() # executeOnEntry() # executeOnExit() # dispose() onOrthogonalAllocation() smacc::SmaccAsyncClientBehavior - onEntryThread\_ onExitThread postFinishEventFn postSuccessEventFn\_ smacc::ISmaccUpdatable - postFailureEventFn\_ onFinished\_ periodDuration\_ - onSuccess\_ lastUpdate\_ - onFailure\_ + ISmaccUpdatable() + onOrthogonalAllocation() + ISmaccUpdatable() + ~SmaccAsyncClientBehavior() + executeUpdate() + onSuccess() + setUpdatePeriod() + onFinished() # update() + onFailure() # executeOnEntry() # executeOnExit() # postSuccessEvent() # postFailureEvent() # dispose() cl\_move\_group\_interface ::CbMoveEndEffectorTrajectory + group + tipLink + allowInitialTrajectoryState JointDiscontinuity # endEffectorTrajectory\_ # movegroupClient\_ # beahiorMarkers\_ markersPub - markersInitialized\_ - iksrv - m mutex postJointDiscontinuityEvent - postIncorrectInitialState Event - postMotionExecutionFailure **Events** + CbMoveEndEffectorTrajectory() + CbMoveEndEffectorTrajectory() + onOrthogonalAllocation() + onEntry() + onExit() + update() # computeJointSpaceTrajectory() # executeJointSpaceTrajectory() # generateTrajectory() # createMarkers() initializeROS() cl\_move\_group\_interface ::CbCircularPivotMotion cl\_move\_group\_interface ::CbCircularPouringMotion + angularSpeed\_rad\_s\_ + linearSpeed\_m\_s\_ + angularSpeed\_rad\_s\_ cl\_move\_group\_interface + relativelnitialPose\_ + linearSpeed\_m\_s\_ ::CbExecuteLastTrajectory # planePivotPose\_ # pivotPoint # deltaRadians # deltaHeight + CbCircularPivotMotion() + CbCircularPouringMotion() + CbExecuteLastTrajectory() + CbCircularPivotMotion() + generateTrajectory() + ~CbExecuteLastTrajectory() + CbCircularPivotMotion() + createMarkers() + onEntry() + generateTrajectory() + getCurrentEndEffectorPose() + createMarkers() - computeCurrentEndEffector computeCurrentEndEffector PoseRelativeToPivot() PoseRelativeToPivot() cl\_move\_group\_interface ::CbEndEffectorRotate + CbEndEffectorRotate() + ~CbEndEffectorRotate()

+ onEntry()