```
- stateMachine_

    currentState

                                                   - currentOrthogonal
                                                   |+ ISmaccClientBehavior()
                                                   + ~ISmaccClientBehavior()
                                                   + getStateMachine()
                                                   + getName()
                                                   + requiresClient()
                                                   + requiresComponent()
                                                   + onEntry()
                                                   + onExit()
                                                   + executeOnEntry()
                                                   + executeOnExit()
                                                   # runtimeConfigure()
                                                   # postEvent()
                                                   # postEvent()
                                                   # getCurrentState()
                                                   # dispose()
                                                   # getNode()
                                                   # getLogger()
                                                   - onOrthogonalAllocation()
                                                   {smacc2::SmaccAsyncClient
                                                              Behavior
                                                   |- onEntryThread_
                                                   - onExitThread
                                                   - postFinishEventFn
                                                   - postSuccessEventFn_
                                                   - postFailureEventFn
                                                  - onFinished_
                                                   - onSuccess_
                                                   - onFailure_
                                                   - isShutdownRequested
                                                                                          {smacc2::ISmaccUpdatable
                                                  |+ onOrthogonalAllocation()
                                                                                          - periodDuration_
                                                   + ~SmaccAsyncClientBehavior()
                                                                                          - lastUpdate
                                                                                          |+ ISmaccUpdatable()
                                                   + onSuccess()
                                                  + onFinished()
                                                                                          + ISmaccUpdatable()
                                                   + onFailure()
                                                                                          + executeUpdate()
                                                   + requestForceFinish()
                                                                                          + setUpdatePeriod()
                                                  + executeOnEntry()
                                                                                          # update()
                                                  + executeOnExit()
                                                   + waitOnEntryThread()
                                                   + onSuccess()
                                                   + onFinished()
                                                   + onFailure()
                                                  # postSuccessEvent()
                                                  # postFailureEvent()
                                                  # dispose()
                                                  # isShutdownRequested()
                                                   - waitFutureIfNotFinished()
                                                                     {cl_move_group_interface
                                                                      ::CbMoveEndEffectorTrajectory
                                                                     + group_
                                                                     + tipLink
                                                                     + allowInitialTrajectoryState
                                                                     JointDiscontinuity_
                                                                     # endEffectorTrajectory_
                                                                     # movegroupClient
                                                                     # beahiorMarkers_
                                                                     - markersPub
                                                                     markersInitialized_
                                                                     - iksrv_
                                                                     - m_mutex_
                                                                     - postJointDiscontinuityEvent
                                                                     - postIncorrectInitialState
                                                                     - postMotionExecutionFailure
                                                                     Events
                                                                     - autocleanmarkers
                                                                     |+ CbMoveEndEffectorTrajectory()
                                                                     + CbMoveEndEffectorTrajectory()
                                                                     + onOrthogonalAllocation()
                                                                     + onEntry()
                                                                     + onExit()
                                                                     + update()
                                                                     # computeJointSpaceTrajectory()
                                                                     # executeJointSpaceTrajectory()
                                                                     # generateTrajectory()
                                                                     # createMarkers()
                                                                     # getCurrentEndEffectorPose()
                                                                     - initializeROS()
                                   {cl_move_group_interface
{cl move group interface
                                     ::CbCircularPouringMotion
  ::CbCircularPivotMotion
                                   |+ angularSpeed_rad_s_
|+ angularSpeed_rad_s_
                                                                                                                                                 {cl_move_group_interface
                                   + linearSpeed_m_s_
                                                                                                           {cl_move_group_interface
+ linearSpeed m s
                                                                                                                                                    ::CbUndoLastTrajectory
                                                                                                             ::CbMoveCartesianRelative2
                                   + directionVector
                                                                                                                                                 |- backIndex
+ relativeInitialPose_
                                                                       {cl_move_group_interface
                                   + pointerRelativePose_
                                                                                                           + offset
                                                                        ::CbExecuteLastTrajectory
# planePivotPose_
                                                                                                                                                 - trajectory
                                   # relativePivotPoint_
                                                                                                           + linearSpeed_m_s_
                                                                       ||+ CbExecuteLastTrajectory()
# deltaRadians
                                                                                                                                                 - reversed
                                   # deltaHeight

    globalFrame

|+ CbCircularPivotMotion()
                                                                                                                                                 |+ CbUndoLastTrajectory()
                                                                       + ~CbExecuteLastTrajectory()
                                                                                                           |+ CbMoveCartesianRelative2()
                                   # pointerTrajectory_
+ CbCircularPivotMotion()
                                                                       + generateTrajectory()
                                                                                                                                                 + CbUndoLastTrajectory()
                                                                                                           + CbMoveCartesianRelative2()
                                   - globalFrame_
                                                                      + onEntry()
+ CbCircularPivotMotion()
                                                                                                                                                 + ~CbUndoLastTrajectory()
                                   |+ CbCircularPouringMotion()
                                                                                                           + ~CbMoveCartesianRelative2()
+ generateTrajectory()
                                                                                                                                                 + onEntry()
                                   + generateTrajectory()
                                                                                                           + generateTrajectory()
+ createMarkers()
                                                                                                                                                 + generateTrajectory()
                                   + createMarkers()
- computeCurrentEndEffector
                                   - computeCurrentEndEffector
PoseRelativeToPivot()
                                   PoseRelativeToPivot()
  {cl_move_group_interface
   ::CbEndEffectorRotate
 |+ CbEndEffectorRotate()
 + ~CbEndEffectorRotate()
 + onEntry()
```

{smacc2::ISmaccClientBehavior