

```
{smacc2::SmaccClient
# components_
- stateMachine_
- orthogonal
|+ ISmaccClient()
+ ~ISmaccClient()
+ onInitialize()
+ getName()
+ getComponent()
+ getComponent()
+ getComponent()
+ getType()
+ getStateMachine()
+ connectSignal()
+ requiresClient()
+ getComponents()
+ iterateComponents()
+ postEvent()
+ postEvent()
# onOrthogonalAllocation()
# createComponent()
# createNamedComponent()
# getNode()
# getLogger()
- initialize()
- setStateMachine()
- setOrthogonal()
}
```

```
{cl_lifecyclenode:CLifecycleNode
|+ onTransitionEventSignal
+ onTransitionCreate
+ onTransitionConfigure_
+ onTransitionCleanup_
+ onTransitionActivate_
+ onTransitionDeactivate_
+ onTransitionUnconfigured
Shutdown_
+ onTransitionInactiveShutdown_
+ onTransitionActiveShutdown_
+ onTransitionDestroy_
+ onTransitionOnConfigureSuccess_
+ onTransitionOnConfigureFailure_
+ onTransitionOnConfigureError_
+ onTransitionOnActivateSuccess_
+ onTransitionOnActivateFailure_
+ onTransitionOnActivateError_
+ onTransitionOnDeactivate
Success_
+ onTransitionOnDeactivate
Failure_
+ onTransitionOnDeactivate
Error_
+ onTransitionOnCleanupSuccess_
+ onTransitionOnCleanupFailure_
+ onTransitionOnCleanupError_
+ onTransitionOnShutdownSuccess_
+ onTransitionOnShutdownFailure_
+ onTransitionOnShutdownError_
+ onTransitionOnActiveShutdown
Success_
+ onTransitionOnActiveShutdown
Failure_
+ onTransitionOnActiveShutdown
Error_
+ onTransitionOnErrorSuccess_
+ onTransitionOnErrorFailure_
+ onTransitionOnErrorError_
- client_get_state
- client_change_state
- subscription_transition
_event_
- nodeName_
- node_get_state_topic
- node_change_state_topic
- node_transition_event
_topic_
- lastTransitionEvent_
- postOnTransitionCreate_
- postOnTransitionConfigure_
- postOnTransitionCleanup_
- postOnTransitionActivate_
- postOnTransitionDeactivate_
- postOnTransitionUnconfigured
Shutdown_
- postOnTransitionInactive
Shutdown_
- postOnTransitionActiveShutdown_
- postOnTransitionDestroy_
- postOnTransitionOnConfigure
Success_
- postOnTransitionOnConfigure
Failure_
- postOnTransitionOnConfigure
Error_
- postOnTransitionOnActivate
Success_
- postOnTransitionOnActivate
Failure_
- postOnTransitionOnActivate
Error_
- postOnTransitionOnDeactivate
Success_
- postOnTransitionOnDeactivate
Failure_
- postOnTransitionOnDeactivate
Error_
- postOnTransitionOnCleanup
Success_
- postOnTransitionOnCleanup
Failure_
- postOnTransitionOnCleanup
Error_
- postOnTransitionOnShutdown
Success_
- postOnTransitionOnShutdown
Failure_
- postOnTransitionOnShutdown
Error_
- postOnTransitionOnErrorSuccess_
- postOnTransitionOnErrorFailure_
- postOnTransitionOnErrorError_
|+ CLifecycleNode()
+ ~CLifecycleNode()
+ onInitialize()
+ changeState()
+ configure()
+ activate()
+ deactivate()
+ cleanup()
+ shutdown()
+ destroy()
+ onTransitionEvent()
+ onOrthogonalAllocation()
}
```

```
{cl_moveit2z:CMoveit2z
|+ moveGroupClientInterface
+ planningSceneInterface
- postEventMotionExecution
Succeeded_
- postEventMotionExecution
Failed_
- onSuccessed_
- onFailed_
- options_
|+ CMoveit2z()
+ ~CMoveit2z()
+ onInitialize()
+ onOrthogonalAllocation()
+ onTimerTick()
+ onOrthogonalAllocation()
+ onTimerTick()
+ onOrthogonalAllocation()
+ onTimerCallback()
+ onOrthogonalAllocation()
+ onMotionExecutionSucceeded()
+ onMotionExecutionFailed()
+ getOptions()
}
```

```
{cl_ros_timer:CIROS_Timer
# timer_
# duration_
# oneshot_
# postTimerEvent_
|+ CIROS_Timer()
+ ~CIROS_Timer()
+ initialize()
+ onTimerTick()
+ onOrthogonalAllocation()
+ CIROS_Timer()
+ onInitialize()
+ onTimerTick()
+ onOrthogonalAllocation()
+ timerCallback()
+ timerCallback()
}
```

```
{smacc2::client_bases
:CIROS_Launch
|+ packageName_
+ launchFileName_
# result_
# cancellationToken_
|+ CIROS_Launch()
+ ~CIROS_Launch()
+ launch()
+ stop()
+ executeRosLaunch()
}
```

```
{smacc2::client_bases
:ISmaccActionClient
# name_
|+ ISmaccActionClient()
+ ~ISmaccActionClient()
+ getNamespace()
+ cancelGoal()
+ getClientBase()
+ getName()
}
```

```
{smacc2::client_bases
:SmaccPublisherClient
|+ topicName_
+ queueSize_
+ durability_
+ reliability_
+ pub_
- initialized_
|+ SmaccPublisherClient()
+ ~SmaccPublisherClient()
+ configure()
+ publish()
}
```

```
{smacc2::client_bases
:SmaccServiceClient
< ServiceType >
|+ serviceName_
+ onServiceRequestReceived_
- server_
- initialized_
|+ SmaccServiceClient()
+ ~SmaccServiceClient()
+ onInitialize()
+ call()
}
```

```
{smacc2::client_bases
:SmaccServiceServerClient
< TService >
|+ serviceName_
+ onServiceRequestReceived_
- server_
- initialized_
|+ SmaccServiceServerClient()
+ ~SmaccServiceServerClient()
+ ~SmaccServiceServerClient()
+ onServiceRequestReceived()
+ onInitialize()
- serviceCallback()
}
```

```
{smacc2::client_bases
:SmaccSubscriberClient
< MessageType >
|+ topicName_
+ queueSize_
+ onFirstMessageReceived_
+ onMessageReceived_
+ postMessageEvent
+ postInitialMessageEvent
- sub_
- firstMessage_
- initialized_
|+ SmaccSubscriberClient()
+ ~SmaccSubscriberClient()
+ onMessageReceived()
+ onFirstMessageReceived()
+ onOrthogonalAllocation()
# onInitialize()
- messageCallback()
}
```

```
{smacc2::client_bases
:SmaccSubscriberClient
< std_msgs::msg::UInt16 >
|+ topicName_
+ queueSize_
+ onFirstMessageReceived_
+ onMessageReceived_
+ postMessageEvent
+ postInitialMessageEvent
- sub_
- firstMessage_
- initialized_
|+ SmaccSubscriberClient()
+ ~SmaccSubscriberClient()
+ onMessageReceived()
+ onFirstMessageReceived()
+ onOrthogonalAllocation()
# onInitialize()
- messageCallback()
}
```

```
{cl_multirole_sensor
:CMultiroleSensor
< MessageType >
|+ onMessageTimeout_
+ queueSize_
+ postTimeoutMessageEvent
+ timeout_
- timeoutTimer_
- initialized_
|+ CMultiroleSensor()
+ onMessageTimeout()
+ onOrthogonalAllocation()
+ onInitialize()
+ resetTimer()
+ timeoutCallback()
}
```

```
{smacc2::client_bases
:SmaccSubscriberClient
< TMsg >
|+ topicName_
+ queueSize_
+ onFirstMessageReceived_
+ onMessageReceived_
+ postMessageEvent
+ postInitialMessageEvent
- sub_
- firstMessage_
- initialized_
|+ SmaccSubscriberClient()
+ ~SmaccSubscriberClient()
+ onMessageReceived()
+ onFirstMessageReceived()
+ onOrthogonalAllocation()
# onInitialize()
- messageCallback()
}
```

```
{smacc2::client_bases
:SmaccActionClientBase
< ActionType >
|+ action_endpoint_
+ lastRequest_
+ onSucceeded_
+ onAborted_
+ onCancelled_
+ postSuccessEvent
+ postAbortedEvent
+ postCancelledEvent
+ postFeedbackEvent
+ feedback_cb
# client_
|+ SmaccActionClientBase()
+ ~SmaccActionClientBase()
+ ~SmaccActionClientBase()
+ getClientBase()
+ onInitialize()
+ postResultEvent()
+ onOrthogonalAllocation()
+ onSucceeded()
+ onAborted()
+ onCancelled()
+ onCancelled()
+ onCancelled()
+ cancelGoal()
+ sendGoal()
+ getEventLabel()
# onFeedback()
# onResult()
}
```

```
{cl_ros_publisher:CIROS_Publisher
|+ CIROS_Publisher()
+ ~CIROS_Publisher()
+ configure()
+ publish()
}
```

```
{smacc2::client_bases
:SmaccActionClientBase
< nav2_msgs::action::NavigateTo
Pose >
|+ action_endpoint_
+ lastRequest_
+ onSucceeded_
+ onAborted_
+ onCancelled_
+ postSuccessEvent
+ postAbortedEvent
+ postCancelledEvent
+ postFeedbackEvent
+ feedback_cb
# client_
|+ SmaccActionClientBase()
+ ~SmaccActionClientBase()
+ ~SmaccActionClientBase()
+ getClientBase()
+ onInitialize()
+ postResultEvent()
+ onOrthogonalAllocation()
+ onSucceeded()
+ onAborted()
+ onCancelled()
+ onCancelled()
+ onCancelled()
+ cancelGoal()
+ sendGoal()
+ getEventLabel()
# onFeedback()
# onResult()
}
```

```
{cl_nav2z:CI_Nav2Z
|+ CI_Nav2Z()
+ ~CI_Nav2Z()
}
```

```
{cl_keyboard:CIKeyboard
|+ OnKeyPress_
+ postEventKeyPress
- initialized_
|+ CIKeyboard()
+ ~CIKeyboard()
+ onInitialize()
+ OnKeyPress()
+ onOrthogonalAllocation()
+ onKeyboardMessage()
+ postKeyEvent()
}
```

< std_msgs::msg::UInt16 >

< TMsg >

< nav2_msgs::action::NavigateToPose >