

# AGENTINTERFACE

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Why are the following methods not supported by the World\_OSI::AgentAdapter

## CONST METHODS

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- GetAccelerationAbsolute -> Use GetAcceleration
- GetAccelerationX -> Use GetVelocity
- GetAccelerationY -> Use GetVelocity
- GetAgentId -> Modules get AgentInterfaces instead for other queries
- GetAgentTypeId -> GetVehicleModelType
- GetCollisionData -> GetCollisionPartners
- GetCollisionState -> GetCollisionPartners
- GetDistanceCOGtoFrontAxle -> COG currently not implemented (use GetDistanceReferencePointToFrontAxle instead)
- GetDistanceCOGtoLeadingEdge -> COG currently not implemented (use GetDistanceReferencePointToLeadingEdge instead)
- GetVelocityX -> Use GetVelocity
- GetVelocityY -> Use GetVelocity
- IsBicycle -> Specialization of type not supported (or you get IsCar, IsTruck, IsPedestrian, IsScooter, ...)
- IsFirstCarInLane -> Needs to be augmented by driver ("where does the lane start?"). In addition, such generic questions are elevated into the WorldInterface

## "INTENTION"

An agent should not be able to query the intentions of another agent. Further, this is very specific for cars

- GetAccelerationIntention
- GetAngleIntention
- GetDecelerationIntention

## "NEAREST"

Should be handled over Sensors or augmented by Driver. See also GetObjectInFront, GetObjectBehind, GetDistanceToObject

- GetAgentViewDirectionToNearestMark
- GetDistanceToNearestAgentInViewRange
- GetDistanceToNearestMark
- GetDistanceToNearestMarkInViewDirection
- GetDistanceToNearestMarkInViewRange
- GetDistanceToNearestObjectInViewRange
- GetIdOfNearestAgent
- GetOrientationOfNearestMark
- GetOrientationOfNearestMarkInViewDirection
- GetOrientationOfNearestMarkInViewRange
- GetTypeOfNearestMark
- GetTypeOfNearestMarkString
- GetTypeOfNearestObject
- GetViewDirectionToNearestAgentInViewRange
- GetViewDirectionToNearestMark
- GetViewDirectionToNearestMarkInViewRange
- GetViewDirectionToNearestObjectInViewRange
- GetVisibilityToNearestAgentInViewRange

## "TRAJECTORY"

Handled by TrajectoryFollower component

- GetTrajectoryAngle
- GetTrajectoryTime
- GetTrajectoryVelocity
- GetTrajectoryXPos
- GetTrajectoryYPos

## NONCONST METHODS

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- GetAllAgentsInLane -> GetAllWorldObjectsInFront
- GetDistanceFrontAgentToEgo -> GetDistanceToObject
- GetDistanceToFrontAgent-> GetDistanceToObject
- GetDistanceToRearAgent-> GetDistanceToObject
- GetDistanceToSpecialAgent -> No differentiation of special or ego anymore
- GetYawAcceleration
- HasTwoLeftLanes
- HasTwoRightLanes
- InitAgentParameter
- IsAgentAtEndOfRoad
- IsObstacle
- EstimateLaneChangeState

## VOID NONCONST METHODS

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- RemoveSpecialAgentMarker
- SetAccelerationIntention
- SetAccelerationX
- SetAccelerationY
- SetAngleIntention
- SetCollisionState
- SetDecelerationIntention
- SetDistanceCOGtoFrontAxe
- SetDistanceCOGtoLeadingEdge
- SetObstacleFlag
- SetSpecialAgentMarker
- SetVelocityX
- SetVelocityY
- SetYawAcceleration

## SUPPORTED METHODS

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- ExistsLaneLeft
- ExistsLaneRight
- GetAgentCategory
- GetAgentInFront
- GetAgentsInRange
- GetAgentsInRangeAbsolute

- GetAgentTypeName
- GetAllAgentsInFront
- GetAllWorldObjectsInFront
- GetBrakeLight
- GetCollisionPartners
- GetDistanceReferencePointToFrontAxle
- GetDistanceReferencePointToLeadingEdge
- GetDistanceToConnectorDeparture
- GetDistanceToConnectorEntrance
- GetDistanceToEndOfExit
- GetDistanceToEndOfLane
- GetDistanceToEndOfRamp
- GetDistanceToNextJunction
- GetDistanceToStartOfRoad
- GetDistanceTraveled
- GetDriverProfileName
- GetEffAccelPedal
- GetEffBrakePedal
- GetEngineSpeed
- GetFlasher
- GetFrictionCoeff
- GetGear
- GetHeadLight
- GetHeightCOG
- GetHighBeamLight
- GetHorn
- GetId
- GetIndicatorState
- GetLaneCurvature
- GetLaneDirection
- GetLaneIdLeft
- GetLaneIdRight
- GetLaneMarkingsInRange
- GetLaneRemainder
- GetLaneWidth
- GetLaneWidthRightDrivingAndStopLane
- GetLightState
- GetMainLaneId
- GetMaxAcceleration
- GetMaxDeceleration
- GetMomentInertiaPitch
- GetMomentInertiaRoll
- GetMomentInertiaYaw
- GetNumberOfLanes
- GetObjectBehind
- GetObjectInFront
- GetObjectsInRange
- GetPositionLateral
- GetRelativeJunctions
- GetRelativeLanes
- GetRelativeYaw

- GetRoadId
- GetRoadPosition
- GetRoute
- GetScenarioName
- GetSecondaryCoveredLanes
- GetSensorParameters
- GetSpeedGoalMin
- GetSteeringWheelAngle
- GetTrackWidth
- GetTrafficSignsInRange
- GetType
- GetVehicleModelParameters
- GetVehicleModelType
- GetVehicleType
- GetVelocity
- GetWeight
- GetWheelbase
- GetYawRate
- InitAgentParameter
- IsAgentInWorld
- IsCrossingLanes
- IsEgoAgent
- IsLaneDrivingLane
- IsLaneExitLane
- IsLaneRamp
- IsLaneStopLane
- IsLeavingWorld
- IsValid
- Locate
- RemoveAgent
- SetAcceleration
- SetBrakeLight
- SetDistanceReferencePointToFrontAxe
- SetDistanceReferencePointToLeadingEdge
- SetDistanceTraveled
- SetEffAccelPedal
- SetEffBrakePedal
- SetEngineSpeed
- SetFlasher
- SetFrictionCoeff
- SetGear
- SetHeadLight
- SetHeight
- SetHeightCOG
- SetHighBeamLight
- SetHorn
- SetIndicatorState
- SetLength
- SetMaxAcceleration
- SetMaxDeceleration
- SetMomentInertiaPitch

- SetMomentInertiaRoll
- SetMomentInertiaYaw
- SetPosition
- SetPositionX
- SetPositionY
- SetSensorParameters
- SetSteeringRatio
- SetSteeringWheelAngle
- SetTrackWidth
- SetVelocity
- SetWeight
- SetWheelbase
- SetWidth
- SetYaw
- SetYawRate
- Unlocate
- Unregister
- Update
- UpdateCollision