

ACC Shared Memory v1.1

Field is working as intended

Field is not used by ACC

New / reworked entry(/ies) since last build

* indicates double fields

Order of wheels:

Front Left	FL
Front Right	FR
Rear Left	RL
Rear Right	RR

SPageFilePhysics

The following members change at each graphic step. They all refer to the player's car.

int packetId	Current step index
float gas	Gas pedal input value (from -0 to 1.0)
float brake	Brake pedal input value (from -0 to 1.0)
float fuel	Amount of fuel remaining in kg
int gear	Current gear
int rpm	Engine revolutions per minute
float steerAngle	Steering input value (from -1.0 to 1.0)
float speedKmh	Car speed in km/h
float velocity[3]	Car velocity vector in global coordinates
float accG[3]	Car acceleration vector in global coordinates
float wheelSlip[4]	Tyre slip for each tyre [FL, FR, RL, RR]
float wheelLoad[4]	Wheel load for each tyre [FL, FR, RL, RR]
float wheelPressure[4]	Tyre pressure [FL, FR, RL, RR]
float wheelAngularSpeed[4]	Wheel angular speed in rad/s [FL, FR, RL, RR]
float tyreWear[4]	Tyre wear [FL, FR, RL, RR]
float tyreDirtyLevel[4]	Dirt accumulated on tyre surface [FL, FR, RL, RR]
float TyreCoreTemp[4] *	Tyre rubber core temperature [FL, FR, RL, RR]
float camberRAD[4]	Wheels camber in radians [FL, FR, RL, RR]
float suspensionTravel[4]	Suspension travel [FL, FR, RL, RR]
float drs	DRS on
float tc **	TC in action
float heading	Car yaw orientation
float pitch	Car pitch orientation
float roll	Car roll orientation
float cgHeight	Centre of gravity height

float carDamage[5]	Car damage: front 0, rear 1, left 2, right 3, centre 4
int numberOfTyresOut	Number of tyres out of track
int pitLimiterOn	Pit limiter is on
float abs ***	ABS in action
float kersCharge	Not used in ACC
float kersInput	Not used in ACC
int autoshifterOn	Automatic transmission on
float rideHeight[2]	Ride height: 0 front, 1 rear
float turboBoost	Car turbo level
float ballast	Car ballast in kg / Not implemented
float airDensity	Air density
float airTemp	Air temperature
float roadTemp	Road temperature
float localAngularVel[3]	Car angular velocity vector in local coordinates
float finalFF	Force feedback signal
float performanceMeter	Not used in ACC
int engineBrake	Not used in ACC
int ersRecoveryLevel	Not used in ACC
int ersPowerLevel	Not used in ACC
int ersHeatCharging	Not used in ACC
int ersIsCharging	Not used in ACC
float kersCurrentKJ	Not used in ACC
int drsAvailable	Not used in ACC
int drsEnabled	Not used in ACC
float brakeTemp[4]	Brake discs temperatures
float clutch	Clutch pedal input value (from -0 to 1.0)
float tyreTempI[4]	Not shown in ACC
float tyreTempM[4]	Not shown in ACC
float tyreTempO[4]	Not shown in ACC
int isAIControlled	Car is controlled by the AI
float tyreContactPoint[4][3]	Tyre contact point global coordinates [FL, FR, RL, RR]
float tyreContactNormal[4][3]	Tyre contact normal [FL, FR, RL, RR] [x,y,z]
Float tyreContactHeading[4][3]	Tyre contact heading [FL, FR, RL, RR] [x,y,z]
float brakeBias	Front brake bias, see Appendix 4
float localVelocity[3]	Car velocity vector in local coordinates
int P2PActivation	Not used in ACC
int P2PStatus	Not used in ACC
float currentMaxRpm	Maximum engine rpm
float mz[4]	Not shown in ACC
float fx[4]	Not shown in ACC
float fy[4]	Not shown in ACC

float slipRatio[4]	Tyre slip ratio [FL, FR, RL, RR]
float slipAngle[4]	Tyre slip angle [FL, FR, RL, RR]
int tcinAction **	TC in action
int absInAction ***	ABS in action
float suspensionDamage[4]	Suspensions damage levels [FL, FR, RL, RR]
float tyreTemp[4] *	Tyres core temperatures [FL, FR, RL, RR]
float waterTemp	Water Temperature
float brakePressure[4]	Brake pressure [FL, FR, RL, RR] see Appendix 2

SPageFileGraphic

The following members are updated at each graphical step. They mostly refer to player's car except for carCoordinates and carID, which refer to the cars currently on track.

int packetId	Current step index
ACC_STATUS status	See enums ACC_STATUS
ACC_SESSION_TYPE session	See enums ACC_SESSION_TYPE
wchar_t currentTime[15]	Current lap time in wide character
wchar_t lastTime[15]	Last lap time in wide character
wchar_t bestTime[15]	Best lap time in wide character
wchar_t split[15]	Last split time in wide character
int completedLaps *	No of completed laps
int position	Current player position
int iCurrentTime	Current lap time in milliseconds
int iLastTime	Last lap time in milliseconds
int iBestTime	Best lap time in milliseconds
float sessionTimeLeft	Session time left
float distanceTraveled	Distance travelled in the current stint
int isInPit	Car is pitting
int currentSectorIndex	Current track sector
int lastSectorTime	Last sector time in milliseconds
int numberOfLaps *	Number of completed laps
wchar_t tyreCompound[33]	Tyre compound used
float replayTimeMultiplier	Not used in ACC
float normalizedCarPosition	Car position on track spline (0.0 start to 1.0 finish)
int activeCars	Number of cars on track
float carCoordinates[60][3]	Coordinates of cars on track
int carID[60]	Car IDs of cars on track
int playerCarID	Player Car ID
float penaltyTime	Penalty time to wait
ACC_FLAG_TYPE flag	See enums ACC_FLAG_TYPE

ACC_PENALTY_TYPE penalty	See enums ACC_PENALTY_TYPE
int idealLineOn	Ideal line on
int isInPitLane	Car is in pit lane
float surfaceGrip	Ideal line friction coefficient
int mandatoryPitDone	Mandatory pit is completed
float windSpeed	Wind speed in m/s
float windDirection	wind direction in radians
int isSetupMenuVisible	Car is working on setup
int mainDisplayIndex	current car main display index, see Appendix 1
int secondaryDisplyIndex	current car secondary display index
int TC	Traction control level
int TCCUT	Traction control cut level
int EngineMap	Current engine map
int ABS	ABS level
float fuelXLap	Average fuel consumed per lap in liters
int rainLights	Rain lights on
int flashingLights	Flashing lights on
int lightsStage	Current lights stage
float exhaustTemperature	Exhaust temperature
int wiperLV	Current wiper stage
int driverStintTotalTimeLeft	Time the driver is allowed to drive per race (milliseconds)
int driverStintTimeLeft	Time the driver is allowed to drive per stint (milliseconds)
int rainTyres	Are rain tyres equipped
int sessionIndex	
float usedFuel	Used fuel since last time refueling
wchar_t deltaLapTime[15]	Delta time in wide character
int iDeltaLapTime	Delta time time in milliseconds
wchar_t estimatedLapTime [15]	Estimated lap time in milliseconds
int iEstimatedLapTime	Estimated lap time in wide character
int isDeltaPositive	Delta positive (1) or negative (0)
int isSplit	Last split time in milliseconds
int isValidLap	Check if Lap is valid for timing
float fuelEstimatedLaps	Laps possible with current fuel level
wchar_t trackStatus[33]	Status of the track (Green, Fast, Optimum, Damp, Wet)
int missingMandatoryPits	Mandatory pitstops the player still has to do

SPageFileStatic

The following members are initialized when the instance starts and never changes until the instance is closed.

wchar_t smVersion[15]	Shared memory version
wchar_t acVersion[15]	Assetto Corsa version
int numberOfSessions	Number of sessions
int numCars	Number of cars
wchar_t carModel[33]	Player car model see Appendix 2
wchar_t track[33]	Track name
wchar_t playerName[33]	Player name
wchar_t playerSurname[33]	Player surname
wchar_t playerNick[33]	Player nickname
int sectorCount	Number of sectors
float maxTorque	Not shown in ACC
float maxPower	Not shown in ACC
int maxRpm	Maximum rpm
float maxFuel	Maximum fuel tank capacity
float suspensionMaxTravel[4]	Not shown in ACC
float tyreRadius[4]	Not shown in ACC
float maxTurboBoost	Maximum turbo boost
float deprecated_1	
float deprecated_2	
int penaltiesEnabled	Penalties enabled
float aidFuelRate	Fuel consumption rate
float aidTireRate	Tyre wear rate
float aidMechanicalDamage	Mechanical damage rate
float AllowTyreBlankets	Not allowed in Blancpain endurance series
float aidStability	Stability control used
int aidAutoclutch	Auto clutch used
int aidAutoBlip	Always true in ACC
int hasDRS	Not used in ACC
int hasERS	Not used in ACC
int hasKERS	Not used in ACC
float kersMaxJ	Not used in ACC
int engineBrakeSettingsCount	Not used in ACC
int ersPowerControllerCount	Not used in ACC
float trackSplineLength	Not used in ACC
wchar_t trackConfiguration	Not used in ACC
float ersMaxJ	Not used in ACC

int isTimedRace	Not used in ACC
int hasExtraLap	Not used in ACC
wchar_t carSkin[33]	Not used in ACC
int reversedGridPositions	Not used in ACC
int PitWindowStart	Pit window opening time
int PitWindowEnd	Pit windows closing time
int isOnline	If is a multiplayer session

Enums

ACC_FLAG_TYPE

ACC_NO_FLAG = 0
ACC_BLUE_FLAG = 1
ACC_YELLOW_FLAG = 2
ACC_BLACK_FLAG = 3
ACC_WHITE_FLAG = 4
ACC_CHECKERED_FLAG = 5
ACC_PENALTY_FLAG = 6
ACC_GREEN_FLAG = 7

ACC_PENALTY_TYPE

ACC_None = 0
ACC_DriveThrough_Cutting = 1
ACC_StopAndGo_10_Cutting = 2
ACC_StopAndGo_20_Cutting = 3
ACC_StopAndGo_30_Cutting = 4
ACC_Disqualified_Cutting = 5
ACC_RemoveBestLaptime_Cutting = 6
ACC_DriveThrough_PitSpeeding = 7
ACC_StopAndGo_10_PitSpeeding = 8
ACC_StopAndGo_20_PitSpeeding = 9
ACC_StopAndGo_30_PitSpeeding = 10
ACC_Disqualified_PitSpeeding = 11
ACC_RemoveBestLaptime_PitSpeeding = 12
ACC_Disqualified_IgnoredMandatoryPit = 13
ACC_PostRaceTime = 14
ACC_Disqualified_Trolling = 15
ACC_Disqualified_PitEntry = 16
ACC_Disqualified_PitExit = 17
ACC_Disqualified_Wrongway = 18
ACC_DriveThrough_IgnoredDriverStint = 19
ACC_Disqualified_IgnoredDriverStint = 20
ACC_Disqualified_ExceededDriverStintLimit = 21

ACC_SESSION_TYPE

ACC_UNKNOWN = -1
ACC_PRACTICE = 0
ACC_QUALIFY = 1

ACC_RACE = 2
ACC_HOTLAP = 3
ACC_TIMEATTACK = 4
ACC_DRIFT = 5
ACC_DRAG = 6
ACC_HOTSTINT = 7
ACC_HOTSTINTSUPERPOLE = 8

ACC_STATUS

ACC_OFF = 0
ACC_REPLAY = 1
ACC_LIVE = 2
ACC_PAUSE = 3

ACC_WHEELS_TYPE

ACC_FrontLeft = 0
ACC_FrontRight = 1
ACC_RearLeft = 2
ACC_RearRight = 3

Appendix 1 – mainDisplayIndex

	Page 1	Page 2	Page 3	Page 4
2018				
Aston Martin Vantage V12 GT3 2013	0	1		
Audi R8 LMS 2015	0	1	2	3
Bentley Continental GT3 2015	0	1		
Bentley Continental GT3 2018	0	1	2	
BMW M6 GT3 2017	0			
Emil Frey Jaguar G3 2012	0	1		
Ferrari 488 GT3 2018	0	1	2	
Honda NSX GT3 2017	0			
Lamborghini Gallardo G3 Reiter 2017	0	1		
Lamborghini Huracan GT3 2015	4	0	2	3
Lamborghini Huracan ST 2015	0			
Lexus RCF GT3 2016	0			
McLaren 650S GT3 2015	0	1	2	4
Mercedes AMG GT3 2015	0	1		
Nissan GTR Nismo GT3 2015	1	3	4	0
Nissan GTR Nismo GT3 2018	1	3	4	0
Porsche 991 GT3 R 2018	0	1	2	3
Porsche9 91 II GT3 Cup 2017	0	1	2	3
2019				
Aston Martin V8 Vantage GT3 2019	0			
Audi R8 LMS Evo 2019	1	2	3	0
Honda NSX GT3 Evo 2019	0			
Lamborghini Huracan GT3 EVO 2019	4	0	2	3
McLaren 720S GT3 2019	0	1	2	3
Porsche 911 II GT3 R 2019	1	2	3	0

Appendix 2 – carModel

Name	Kunos ID
2018	
Aston Martin Vantage V12 GT3 2013	amr_v12_vantage_gt3
Audi R8 LMS 2015	audi_r8_lms
Bentley Continental GT3 2015	bentley_continental_gt3_2016
Bentley Continental GT3 2018	bentley_continental_gt3_2018
BMW M6 GT3 2017	bmw_m6_gt3
Emil Frey Jaguar G3 2012	jaguar_g3
Ferrari 488 GT3 2018	ferrari_488_gt3
Honda NSX GT3 2017	honda_nsx_gt3
Lamborghini Gallardo G3 Reiter 2017	lamborghini_gallardo_rex
Lamborghini Huracan GT3 2015	lamborghini_huracan_gt3
Lamborghini Huracan ST 2015	lamborghini_huracan_st
Lexus RCF GT3 2016	lexus_rc_f_gt3
McLaren 650S GT3 2015	mclaren_650s_gt3
Mercedes AMG GT3 2015	mercedes_amg_gt3
Nissan GTR Nismo GT3 2015	nissan_gt_r_gt3_2017
Nissan GTR Nismo GT3 2018	nissan_gt_r_gt3_2018
Porsche 991 GT3 R 2018	porsche_991_gt3_r
Porsche9 91 II GT3 Cup 2017	porsche_991ii_gt3_cup
2019	
Aston Martin V8 Vantage GT3 2019	amr_v8_vantage_gt3
Audi R8 LMS Evo 2019	audi_r8_lms_evo
Honda NSX GT3 Evo 2019	honda_nsx_gt3_evo
Lamborghini Huracan GT3 EVO 2019	lamborghini_huracan_gt3_evo
McLaren 720S GT3 2019	mclaren_720s_gt3
Porsche 911 II GT3 R 2019	porsche_991ii_gt3_r

Appendix 3 – brakePressure

Front engine

Middle engine

Rear engine

Name	Dash Coefficient	
	Front	Rear
2018		
Aston Martin Vantage V12 GT3 2013	7.9585	7.9585
Audi R8 LMS 2015	7.5980	7.4855
Bentley Continental GT3 2015	7.9585	7.9585
Bentley Continental GT3 2018	7.9585	7.9585
BMW M6 GT3 2017	7.9585	7.9585
Emil Frey Jaguar G3 2012	7.9585	7.9585
Ferrari 488 GT3 2018	7.5980	7.4855
Honda NSX GT3 2017	7.5980	7.4855
Lamborghini Gallardo G3 Reiter 2017	7.5980	7.4855
Lamborghini Huracan GT3 2015	7.5980	7.4855
Lamborghini Huracan ST 2015	7.5980	7.4855
Lexus RCF GT3 2016	7.9585	7.9585
McLaren 650S GT3 2015	7.5980	7.4855
Mercedes AMG GT3 2015	7.9585	7.9585
Nissan GTR Nismo GT3 2015	7.9585	7.9585
Nissan GTR Nismo GT3 2018	7.9585	7.9585
Porsche 991 GT3 R 2018	7.1497	6.7715
Porsche 911 II GT3 Cup 2017	7.1497	6.7715
2019		
Aston Martin V8 Vantage GT3 2019	7.9585	7.9585
Audi R8 LMS Evo 2019	7.5980	7.4855
Honda NSX GT3 Evo 2019	7.5980	7.4855
Lamborghini Huracan GT3 EVO 2019	7.5980	7.4855
McLaren 720S GT3 2019	7.5980	7.4855
Porsche 911 II GT3 R 2019	7.1497	6.7715

Appendix 4 – brakeBias

Name	Dash Offset
2018	
Aston Martin Vantage V12 GT3 2013	-7
Audi R8 LMS 2015	-14
Bentley Continental GT3 2015	-7
Bentley Continental GT3 2018	-7
BMW M6 GT3 2017	-15
Emil Frey Jaguar G3 2012	-7
Ferrari 488 GT3 2018	-17
Honda NSX GT3 2017	-14
Lamborghini Gallardo G3 Reiter 2017	-14
Lamborghini Huracan GT3 2015	-15
Lamborghini Huracan ST 2015	-14
Lexus RCF GT3 2016	-14
McLaren 650S GT3 2015	-17
Mercedes AMG GT3 2015	-15
Nissan GTR Nismo GT3 2015	-15
Nissan GTR Nismo GT3 2018	-15
Porsche 991 GT3 R 2018	-6
Porsche9 91 II GT3 Cup 2017	-15
2019	
Aston Martin V8 Vantage GT3 2019	-7
Audi R8 LMS Evo 2019	-14
Honda NSX GT3 Evo 2019	-14
Lamborghini Huracan GT3 EVO 2019	-14
McLaren 720S GT3 2019	-17
Porsche 911 II GT3 R 2019	-21