Test Report

Swedspot

16/09/2016

Contents

1 Summary

In this project unit-testing, system-testing and a static analysis were made.

1.1 Unit-Testing

Unit test done on this system.

TestSuites	**Failed**	**Passed**	**Total**
Function Library Tests	0	204	204
Platform UnitTests	0	7	7
Toolsuite UnitTests	0	76	76
TOTAL	**0**	**287**	**287**

1.2 Static Analysis

The static analysis consists of two parts. The PCLint and the CppCheck. Together these programs tested the entire system.

Warnings	**High**	**Medium**	**Low**	**Info**
PCLint	0	0	0	0
CppCheck	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

2 Unit Testing

Following unit tests were performed of platform, function library and tool-suite.

2.1 Function Library Tests Summary

TestSuite	Failed	Passed	Total
BrakePressureLowTellTaleSuite	0	10	10
ChargingTellTaleSuite	0	6	6
EngineOilPressureTellTaleSuite	0	6	6
FuelConsumptionSuite	0	14	14
FuelLevelSuite	0	7	7
HighBeamTelltaleSuite	0	6	6
IlluminationManagerSuite	0	10	10
LocalizationManagerSuite	0	6	6
OdoAndTripDisplayHandlerSuite	0	7	7
OdoRuntimeHandlerSuite	0	4	4
ODOTripSuite	0	17	17
OutputShaftRotationSpeedSuite	0	3	3
ParkBrakeIndicatorSuite	0	12	12
QuadSwitchManagerSuite	0	29	29
SwitchManagerSuite	0	21	21
TPMSSuite	0	11	11
TurnIndicationSuite	0	9	9
UreaLevelMeterSuite	0	7	7
VehSpdGaugeSuite	0	8	8
WarningIconFieldsSuite	0	5	5
WaterTempHighIndicatorSuite	0	6	6
TOTAL	**0**	**204**	**204**

2.1.1 BrakePressureLowTellTaleSuite

AllReservoirPressureOkCircuitPressureOK_IndicatorOff
BrakePressureLowTellTale_test.c:272
OK
FrontReservoirPressureLowCircuitPressureNormal_IndicatorOn
BrakePressureLowTellTale_test.c:266
OK
RearReservoirPressureLowCircuitPressureNormal_IndicatorOn
BrakePressureLowTellTale_test.c:266

OK
ParkReservoirPressureLowCircuitPressureNormal_IndicatorOn
BrakePressureLowTellTale_test.c:266
OK
AllReservoirPressureNormalFrontCircuitPressureLow_IndicatorOn
BrakePressureLowTellTale_test.c:266
OK
AllReservoirPressureNormalRearCircuitPressureLow_IndicatorOn
BrakePressureLowTellTale_test.c:266
OK
OneReservoirPressureHighCircuitPressureOK_IndicatorOff
BrakePressureLowTellTale_test.c:272
OK
OneReservoirPressureHighOneCircuitPressureLow_IndicatorOn
BrakePressureLowTellTale_test.c:266
OK
AllReservoirPressureHighOneCircuitPressureBelow700_IndicatorOff
BrakePressureLowTellTale_test.c:136
OK
PowerModeLowWithPressureWarning_IndicatorOff
BrakePressureLowTellTale_test.c:272
OK

2.1.2 ChargingTellTaleSuite

PowerModeOffAndChargingSignalOff_ChargingTellTaleOff
ChargingTellTale_test.c:24
OK
PowerModeOffAndChargingSignalOn_ChargingTellTaleOff
ChargingTellTale_test.c:24
OK
PowerModeOnAndChargingSignalOff_ChargingTellTaleOff
ChargingTellTale_test.c:24
OK
PowerModeOnAndChargingSignalOn_ChargingTellTaleOn
ChargingTellTale_test.c:24
OK
PowerModeLowAndChargingSignalOff_ChargingTellTaleOff
ChargingTellTale_test.c:24
OK

PowerModeLowAndChargingSignalOn_ChargingTellTaleOff
ChargingTellTale_test.c:24
OK

2.1.3 EngineOilPressureTellTaleSuite

PowerIgnitionOffOilPressureOk_TellTaleOff
EngineOilPressureTellTale_test.c:17
OK
PowerIgnitionOffOilPressureNOk_TellTaleOff
EngineOilPressureTellTale_test.c:17
OK
PowerModeLowOilPressureOk_TellTaleOff
EngineOilPressureTellTale_test.c:17
OK
PowerModeLowOilPressureNOk_TellTaleOff
EngineOilPressureTellTale_test.c:17
OK
PowerIgnitionOnOilPressureOk_TellTaleOff
EngineOilPressureTellTale_test.c:17
OK
PowerIgnitionOnOilPressureNOk_TellTaleOff
EngineOilPressureTellTale_test.c:23
OK

2.1.4 FuelConsumptionSuite

SetInstantaniousFuelConsumption_ReadCorrectInstantaniousFuel-Consumption
FuelConsumption_test.c:34
OK
SetDifferentFuelConsumptions_GetCorrectFilteredFuelConsumption
FuelConsumption_test.c:67
OK
ClearTotalFuelAndRunOneHour_ReadALotOfFuel
FuelConsumption_test.c:91
OK
IgnitionOff_ReadZeroFromInstantaniousFuelConsumption
FuelConsumption_test.c:112

OK
IgnitionOff_ReadTotalFuelConsumption
FuelConsumption_test.c:139
OK
SetVehicleFuelRate_ReadCorrectTripFuelConsumptionAfter10min
FuelConsumption_test.c:166
OK
IgnitionOff_ReadZeroTripFuelConsumptionAfter10min
FuelConsumption_test.c:195
OK
PowerLow_ReadZeroTripFuelConsumptionAfter10min
FuelConsumption_test.c:223
OK
Run10minutesThenToggleIgnitionOffOn_TripFuelConsumptionSetToZero
FuelConsumption_test.c:258
OK
Run10minutesThenSendReset_TripFuelConsumptionSetToZero
FuelConsumption_test.c:291
OK
SetTotalFuelInCAL_ReadCorrectTotalFuelValue
FuelConsumption_test.c:310
OK
Run10minThenIgnitionOff_ReadCorrectTotalFuelValueFromCal
FuelConsumption_test.c:338
OK
SetTicksInCALRun10timesThenIgnitionOff_ReadCorrectTicksFromCAL
FuelConsumption_test.c:366
OK
SetTotalFuelAbove9999999_Read9999999OutputSignal
FuelConsumption_test.c:383
OK

2.1.5 FuelLevelSuite

TankFull_GaugeFullWarningOff
FuelLevel_test.c:191
OK
TankEmpty_GaugeEmptyWarningOn

FuelLevel_test.c:191
OK
WarningIsOnValueAboveThresholdButBelowTolerance_WarningStillOn
FuelLevel_test.c:191
OK
WarningIsOnValueAboveThresholdAndTolerance_WarningTurnsOff
FuelLevel_test.c:191
OK
TankFullThenIgnitionOff_GaugeStraightToZero
FuelLevel_test.c:191
OK
TankFullThenLowPower_GaugeStraightToZero
FuelLevel_test.c:191
OK
WarningIsOnThenIgnitionOff_WarningTurnsOff
FuelLevel_test.c:191
OK

2.1.6 HighBeamTelltaleSuite

IgnitionOffAndHighBeamSignalOff_HighBeamTellTaleOff
HighBeamTelltale_test.c:24
OK
IgnitionOffAndHighBeamSignalOn_HighBeamTellTaleOff
HighBeamTelltale_test.c:24
OK
LowPowerModeAndHighBeamSignalOff_HighBeamTellTaleOff
HighBeamTelltale_test.c:24
OK
LowPowerModeAndHighBeamSignalOn_HighBeamTellTaleOff
HighBeamTelltale_test.c:24
OK
IgnitionOnAndHighBeamSignalOff_HighBeamTellTaleOff
HighBeamTelltale_test.c:24
OK
IgnitionOnAndHighBeamSignalOn_HighBeamTellTaleOn
HighBeamTelltale_test.c:24
OK

2.1.7 IlluminationManagerSuite

IgnitionOff_NoLight
IlluminationManager_test.c:285
OK
IgnitionOnAndDayTime_FullDisplayAndNoGaugeLight
IlluminationManager_test.c:277
OK
IgnitionOnAndNightTimeIllumLevel1_1PercDisplayAnd7PrecGaugeLight
IlluminationManager_test.c:324
OK
IgnitionOnAndNightTime_ChangeToIllumLevel2_7PercDisplayAnd14PrecGaugeLi
IlluminationManager_test.c:324
OK
IgnitionOnAndNightTime_ChangeToIllumLevel2ViaCAL_7PercDisplayAnd14PrecGaugeLight
IlluminationManager_test.c:324
OK
IgnitionOnAndNightTimeIllumLevel1AndBackToIgnitionOff_NoLights
IlluminationManager_test.c:285
OK
IgnitionOnAndNightTimeIllumLevel1ThenPowerLow_NoLights
IlluminationManager_test.c:285
OK
CALValueIsUpdatedOnIgnitionOff
IlluminationManager_test.c:285
OK
ChangedValuesInDayModeAreRememberedUntilNightMode
IlluminationManager_test.c:324
OK
TransitionFromNightModeToDayMode_SetsDayMode
IlluminationManager_test.c:277
OK

2.1.8 LocalizationManagerSuite

FunctionBlockInitialized_SubmitsLabelMappingsToGCL
LocalizationManager_test.c:29
OK
FunctionBlockInitialized_CurrentLanguageReadFromCALAndWrit-

tenToGCL
LocalizationManager_test.c:44
OK
NonZeroInitialLanguage_SelectedLanguageNotIndicated_GCLAndCALAreNotOverwritten
LocalizationManager_test.c:63
OK
NewLanguageSelectionIndicatedByGCL_SelectedLanguageWrittenToGCLAndCAL
LocalizationManager_test.c:85
OK
LanguageUpdatedInCAL_SelectedLanguageWrittenToGCLOnly
LocalizationManager_test.c:105
OK
NewLanguageSelectionIndicatedByGCLButSameAsPrevious_NoWritesToGCLNorCAL
LocalizationManager_test.c:128
OK

2.1.9 OdoAndTripDisplayHandlerSuite

Initialization_ProvidesOutputWithINIT
OdoAndTripDisplayHandler_test.c:19
OK
FirstRunAfterInit_ShowsDistanceValues
OdoAndTripDisplayHandler_test.c:19
OK
ZeroDistanceValuesAreDisplayedCorrectly
OdoAndTripDisplayHandler_test.c:19
OK
DecimalTripValueBelowTenIsDisplayedCorrectly
OdoAndTripDisplayHandler_test.c:19
OK
ShowNextIndicationAfterFirstRun_ShowsFuelValues
OdoAndTripDisplayHandler_test.c:19
OK
ZeroFuelValuesAreDisplayedCorrectly
OdoAndTripDisplayHandler_test.c:19
OK
DecimalFuelValueBelowTenIsDisplayedCorrectly

OdoAndTripDisplayHandler_test.c:19
OK

2.1.10 OdoRuntimeHandlerSuite

SetOdoValue_ReadCorrectValue
OdoRuntimeHandler_test.c:29
OK
SetRunTimeValue_ReadCorrectValue
OdoRuntimeHandler_test.c:50
OK
SwitchBetweenODORuntime_DotAndHourGlassToggled
OdoRuntimeHandler_test.c:86
OK
SetDotValue_ReadCorrectValue
OdoRuntimeHandler_test.c:110
OK

2.1.11 ODOTripSuite

FirstStart_ODOInit_FingerPrintSetAndOdoValuesZero
ODOTrip_test.c:46
OK
Write5OdoValues_GetHighestValueFromGCL
ODOTrip_test.c:85
OK
FirstStart_ODOInit_FingerPrintIsSetAndOdoValuesShallNotBeZero
ODOTrip_test.c:65
OK
FirstStart_SpeedZero_ODOShallBeZero
ODOTrip_test.c:106
OK
Speed140_ODOShallBe1KmAfter30Seconds
ODOTrip_test.c:127
OK
OdoAtMax_DontChangeOdoOnRun
ODOTrip_test.c:153
OK
IgnitionOff_DontUpdateOdoOrTrip

ODOTrip_test.c:190
OK
PowerLow_DontUpdateOdoOrTrip
ODOTrip_test.c:226
OK
Speed140_TripAShallBe100mAfter4Seconds
ODOTrip_test.c:247
OK
Speed140_TripBShallBe100mAfter4Seconds
ODOTrip_test.c:268
OK
TripAAtMax_DontUpdateTripAAtRun
ODOTrip_test.c:289
OK
TripBAtMax_DontUpdateTripBAtRun
ODOTrip_test.c:310
OK
TripAResetIndication_TripA300MetersAfter12Seconds
ODOTrip_test.c:344
OK
TripBResetIndication_TripB300MetersAfter12Seconds
ODOTrip_test.c:378
OK
OdoRestCount_OdoRestcounterUpdatedOnIgnitionOff
ODOTrip_test.c:405
OK
TripARestCount_TripARestcounterUpdatedOnIgnitionOff
ODOTrip_test.c:432
OK
TripBRestCount_TripBRestcounterUpdatedOnIgnitionOff
ODOTrip_test.c:460
OK

2.1.12 OutputShaftRotationSpeedSuite

ZeroInput_ZeroOutput
OutputShaftRotationSpeed_test.c:26
OK
In100Input_5Output
OutputShaftRotationSpeed_test.c:51

OK
In10Input_2_5Output
OutputShaftRotationSpeed_test.c:77
OK

2.1.13 ParkBrakeIndicatorSuite

ParkBrakeEnabled_ParkBrakeIndicatorOn
ParkBrakeIndicator_test.c:24
OK
ParkBrakeDisabled_ParkBrakeIndicatorOff
ParkBrakeIndicator_test.c:39
OK
ParkBrakeEnabledSpeedOverZero_ParkBrakeIndicatorOn
ParkBrakeIndicator_test.c:55
OK
ParkBrakeDisabledSpeedOverZero_ParkBrakeIndicatorOff
ParkBrakeIndicator_test.c:71
OK
ParkBrakeEnabledSpeedOverZero_ParkBrakeSoundOn
ParkBrakeIndicator_test.c:87
OK
ParkBrakeDisabledSpeedOverZero_ParkBrakeSoundOff
ParkBrakeIndicator_test.c:103
OK
ParkBrakeEnabledAndSpeedOverZero_ParkBrakeIndicatorCheckMessageActive
ParkBrakeIndicator_test.c:119
OK
ParkBrakeEnabledAndSpeedZero_ParkBrakeCheckMessageInactive
ParkBrakeIndicator_test.c:135
OK
ParkBrakeDisabledAndSpeedOverZero_ParkBrakeCheckMessageInactive
ParkBrakeIndicator_test.c:151
OK
CheckMessageEnabledParkBrakeReleased_CheckMessageGoesInactive
ParkBrakeIndicator_test.c:170
OK

CheckMessageEnabledVehicleStops_CheckMessageGoesInactive
ParkBrakeIndicator_test.c:189
OK
ParkBrakeEnabledTransitionToPowerLow_ParkBrakeIndicatorOff
ParkBrakeIndicator_test.c:205
OK

2.1.14 QuadSwitchManagerSuite

Button1Pressed_Button1EventWithPressedStatus
QuadSwitchManager_test.c:30
OK
Button1LongPressed_Button1EventWithLongPressStatus
QuadSwitchManager_test.c:46
OK
Button1ExtraLongPressed_Button1EventWithExtraLongPressStatus
QuadSwitchManager_test.c:64
OK
Button2Pressed_Button2EventWithPressedStatus
QuadSwitchManager_test.c:30
OK
Button2LongPressed_Button2EventWithLongPressStatus
QuadSwitchManager_test.c:46
OK
Button2ExtraLongPressed_Button2EventWithExtraLongPressStatus
QuadSwitchManager_test.c:64
OK
Button3Pressed_Button3EventWithPressedStatus
QuadSwitchManager_test.c:30
OK
Button3LongPressed_Button3EventWithLongPressStatus
QuadSwitchManager_test.c:46
OK
Button3ExtraLongPressed_Button3EventWithExtraLongPressStatus
QuadSwitchManager_test.c:64
OK
Button4Pressed_Button4EventWithPressedStatus
QuadSwitchManager_test.c:30
OK
Button4LongPressed_Button4EventWithLongPressStatus

QuadSwitchManager_test.c:46
OK
Button4ExtraLongPressed_Button4EventWithExtraLongPressStatus
QuadSwitchManager_test.c:64
OK
ButtonHeld_StateTransitionOnDefinedLimits
QuadSwitchManager_test.c:267
OK
PressedButton1Released_Button1Released
QuadSwitchManager_test.c:80
OK
LongPressedButton1Released_Button1Released
QuadSwitchManager_test.c:98
OK
ExtraLongPressedButton1Released_Button1Released
QuadSwitchManager_test.c:117
OK
PressedButton2Released_Button2Released
QuadSwitchManager_test.c:80
OK
LongPressedButton2Released_Button2Released
QuadSwitchManager_test.c:98
OK
ExtraLongPressedButton2Released_Button2Released
QuadSwitchManager_test.c:117
OK
PressedButton3Released_Button3Released
QuadSwitchManager_test.c:80
OK
LongPressedButton3Released_Button3Released
QuadSwitchManager_test.c:98
OK
ExtraLongPressedButton3Released_Button3Released
QuadSwitchManager_test.c:117
OK
PressedButton4Released_Button4Released
QuadSwitchManager_test.c:80
OK
LongPressedButton4Released_Button4Released
QuadSwitchManager_test.c:98
OK

ExtraLongPressedButton4Released_Button4Released
QuadSwitchManager_test.c:117
OK
FirstButton1ThenButton2Pressed_OnlyButton1Active
QuadSwitchManager_test.c:302
OK
FirstButton4ThenButton3Pressed_OnlyButton4Active
QuadSwitchManager_test.c:302
OK
FirstButton1ThenButton2PressedThenButton1Released_Button2Active
QuadSwitchManager_test.c:302
OK
FirstButton4ThenButton3PressedThenButton4Released_Button3Active
QuadSwitchManager_test.c:302
OK

2.1.15 SwitchManagerSuite

ButtonUpPressed_ButtonUpEventWithPressedStatus
SwitchManager_test.c:49
OK
ButtonDownPressed_ButtonDownEventWithPressedStatus
SwitchManager_test.c:49
OK
ButtonLeftPressed_ButtonLeftEventWithPressedStatus
SwitchManager_test.c:49
OK
ButtonRightPressed_ButtonRightEventWithPressedStatus
SwitchManager_test.c:49
OK
ButtonSetPressed_ButtonSetEventWithPressedStatus
SwitchManager_test.c:49
OK
ButtonClearPressed_ButtonClearEventWithPressedStatus
SwitchManager_test.c:49
OK
ButtonUpLongPressed_ButtonUpEventWithLongPressStatus
SwitchManager_test.c:49
OK
ButtonDownLongPressed_ButtonDownEventWithLongPressStatus

SwitchManager_test.c:49
OK
ButtonLeftLongPressed_ButtonLeftEventWithLongPressStatus
SwitchManager_test.c:49
OK
ButtonRightLongPressed_ButtonRightEventWithLongPressStatus
SwitchManager_test.c:49
OK
ButtonSetLongPressed_ButtonSetEventWithLongPressStatus
SwitchManager_test.c:49
OK
ButtonClearLongPressed_ButtonClearEventWithLongPressStatus
SwitchManager_test.c:49
OK
ButtonUpExtraLongPressed_ButtonUpEventWithExtraLongPressStatus
SwitchManager_test.c:49
OK
ButtonDownExtraLongPressed_ButtonDownEventWithExtraLongPressStatus
SwitchManager_test.c:49
OK
ButtonLeftExtraLongPressed_ButtonLeftEventWithExtraLongPressStatus
SwitchManager_test.c:49
OK
ButtonRightExtraLongPressed_ButtonRightEventWithExtraLongPressStatus
SwitchManager_test.c:49
OK
ButtonSetExtraLongPressed_ButtonSetEventWithExtraLongPressStatus
SwitchManager_test.c:49
OK
ButtonClearExtraLongPressed_ButtonClearEventWithExtraLongPressStatus
SwitchManager_test.c:49
OK
ButtonReleased_SendsButtonReleasedEvent
SwitchManager_test.c:49
OK

SecondButtonPressed_FirstButtonRemainsActive
SwitchManager_test.c:49
OK
ButtonHeld_StateTransitionOnDefinedLimits
SwitchManager_test.c:49
OK

2.1.16 TPMSSuite

SetOneTirePressure_ReadTheSamePressureValue
TPMS_test.c:18
OK
SetOneTirePressureSysPowerModeOff_ReadZeroPressureValue
TPMS_test.c:34
OK
SetOneTirePressureTPMSCalNotInstalled_ReadZeroPressureValue
TPMS_test.c:50
OK
SetOneTirePressureInvalidValue_ReadValueInvalid
TPMS_test.c:66
OK
SetOneTirePressureValidValue_ReadValueValid
TPMS_test.c:82
OK
SetOneTirePressureValidValueNoWarning_ReadValueValidNoWarning
TPMS_test.c:100
OK
SetOneTirePressureValidValueWithWarning_ReadValueValidWarning
TPMS_test.c:118
OK
SetOneTirePressureValidValueNoWarning_ReadValueValidNoWarningIndicatorOff
TPMS_test.c:138
OK
SetOneTirePressureValidValueWithWarning_ReadValueValidWarningIndicatorOn
TPMS_test.c:158
OK

SetTenTirePressuresValidValueNoWarning_ReadValueValidNoWarningIndicatorOff
TPMS_test.c:192
OK
SetTenTirePressuresValidValueOneTireWithWarning_ReadValueValidOneWarningOnIndicatorOn
TPMS_test.c:241
OK

2.1.17 TurnIndicationSuite

AllSignalsOff_NoSoundOrTellTale
TurnIndication_test.c:173
OK
LeftSignalPositiveFlank_TickSoundAndTelltaleOn
TurnIndication_test.c:192
OK
LeftSignalNegativeFlank_TackSoundAndTelltaleOff
TurnIndication_test.c:213
OK
RightSignalPositiveFlank_TickSoundAndTelltaleOn
TurnIndication_test.c:192
OK
RightSignalNegativeFlank_TackSoundAndTelltaleOff
TurnIndication_test.c:213
OK
LeftSignalPositiveFlankWithTelltaleDelay_SoundOnAndTelltaleDelayed
TurnIndication_test.c:173
OK
RightSignalPositiveFlankWithTelltaleDelay_SoundOnAndTelltaleDelayed
TurnIndication_test.c:173
OK
LeftSignalNegativeFlankWithTelltaleDelay_SoundOffAndTelltaleDelayed
TurnIndication_test.c:173
OK
RightSignalNegativeFlankWithTelltaleDelay_SoundOffAndTelltaleDelayed

TurnIndication_test.c:173
OK

2.1.18 UreaLevelMeterSuite

InitializeFunctionBlock_AllSegmentsSetToZero
UreaLevelMeter_test.c:191
OK
CatalystTankEmpty_AllSegmentsSetToZero
UreaLevelMeter_test.c:191
OK
PowerOnCatalystTankLevelFullSweep_SegmentsLightUpAtDefined-Intervals
UreaLevelMeter_test.c:191
OK
PowerLowCatalystTankNotEmpty_NoTankLevelReadAndAllSegments-SetToZero
UreaLevelMeter_test.c:191
OK
PowerOffCatalystTankNotEmpty_NoTankLevelReadAndAllSegments-SetToZero
UreaLevelMeter_test.c:191
OK
PowerOnCatalystTankNotEmptyButSignalTimeout_AllSegments-SetToZero
UreaLevelMeter_test.c:191
OK
PowerLowCatalystTankFull_AllSegmentsSetToZero
UreaLevelMeter_test.c:191
OK

2.1.19 VehSpdGaugeSuite

IgnitionOff_NeedleInRestPosition
VehSpdGauge_test.c:26
OK
IgnitionOnNoVehSpd_NeedleInZeroPos
VehSpdGauge_test.c:42
OK

IgnitionOnAndInMotion_NeedleInCurrentSpeedPos
VehSpdGauge_test.c:61
OK
IgnitionOnNoVehSpd_ChangePowerModeToLow_NeedleInRest
VehSpdGauge_test.c:79
OK
IgnitionOnVehSpdOverMax_NeedleAtMax
VehSpdGauge_test.c:95
OK
IgnitionOnVehSpdChangeTo100kph_FilteredIncreasingValue
VehSpdGauge_test.c:221
OK
IgnitionOnVehSpdChangeto100kphThenRestartAndRepeat_Should-FollowSameCurve
VehSpdGauge_test.c:221
OK
LowPowerAndSpeedNotZero_NeedleInRest
VehSpdGauge_test.c:173
OK

2.1.20 WarningIconFieldsSuite

NoIndicationsActive_AllIconsOff
WarningIconFields_test.c:137
OK
ChargingIndicationActive_FirstIconDisplaysChargingIcon
WarningIconFields_test.c:137
OK
ChargingIndicationNegativeFlank_ChargingIconTurnsOff
WarningIconFields_test.c:137
OK
TwoIndicationsActive_TwoFirstIconsShown
WarningIconFields_test.c:137
OK
TwoIndicationsActiveFirstIndicationTurnsOff_SecondIconIsDisplayed-InFirstPlace
WarningIconFields_test.c:137
OK

2.1.21 WaterTempHighIndicatorSuite

IgnitionOnWaterTempSignalOff_WaterTempHighTellTaleOff
WaterTempHighIndicator_test.c:35
OK
IgnitionOnWaterTempSignalOn_WaterTempHighTellTaleOn
WaterTempHighIndicator_test.c:40
OK
PowerLowWaterTempSignalOff_WaterTempHighTellTaleOff
WaterTempHighIndicator_test.c:35
OK
PowerLowWaterTempSignalOn_WaterTempHighTellTaleOff
WaterTempHighIndicator_test.c:35
OK
IgnitionOffWaterTempSignalOff_WaterTempHighTellTaleOff
WaterTempHighIndicator_test.c:35
OK
IgnitionOffWaterTempSignalOn_WaterTempHighTellTaleOff
WaterTempHighIndicator_test.c:35
OK

2.2 Platform UnitTests

TestSuite	Failed	Passed	Total
SoundManager_Suite	0	7	7
TOTAL	**0**	**7**	**7**

2.2.1 SoundManager_Suite

RequestSound_NoActiveSound_PlaysSound
SoundManagerTests.c:52
OK
RequestSound_SoundWithHigherPriorityPlaying_NoChange
SoundManagerTests.c:66
OK
RequestSound_SoundWithHigherPriorityFinished_PlaysSound
SoundManagerTests.c:81
OK
RequestSound_SoundWithLowerPriorityPlaying_StopSoundAndPlayNewSound
SoundManagerTests.c:95

OK
RequestActiveBuzzerSound_NoActiveBuzzerSound_ActiveBuzzer
SoundManagerTests.c:20
OK
RequestActiveBuzzerSound_BuzzerAlreadyPlaying_ActiveOther-BuzzerSound
SoundManagerTests.c:38
OK
StopSoundWhenActiveBuzzerPlaying_CallsStopSoundOnBSP
SoundManagerTests.c:108
OK

2.3 Toolsuite UnitTests

TestSuite	Failed	Passed	Total
BSPMappingTests	0	2	2
BSPSpecificationDeserializerTests	0	6	6
CANMessageTests	0	2	2
CANSpecificationDeserializerTests	0	5	5
CompilerBaseTests	0	7	7
CompilerFactoryTests	0	3	3
DBCParserTests	0	13	13
FunctionDefinitionDeserializerTests	0	3	3
LayoutDefinitionDeserializerTests	0	3	3
LayoutDefinitionTests	0	6	6
MenuDefinitionDeserializerTests	0	4	4
MenuItemTests	0	6	6
ProjectDeserializerTests	0	3	3
RootMenuItemContainerTests	0	9	9
SignalMappingDeserializerTests	0	4	4
TOTAL	**0**	**76**	**76**

2.3.1 BSPMappingTests

GetIndexFromSignalName_KnownSignal_ReturnsIndex
OK
GetIndexFromSignalName_UnknownSignal_ReturnsUnknownIndex
OK

2.3.2 BSPSpecificationDeserializerTests

Deserialize_NoData_ReturnsTrueAndEmptySpecification
OK
Deserialize_Display_ReturnsTrueAndDisplay
OK
Deserialize_SingleEnum_ReturnsTrueAndOneEnum
OK
Deserialize_SingleFunction_ReturnsTrueAndOneFunction
OK
Deserialize_EmptyXML_ReturnsFalse
OK
Deserialize_UnknownRootElement_ReturnsFalseAndErrorMessage
OK

2.3.3 CANMessageTests

SendTypeFromString_ValidStrings_ValidEnumValues
OK
SendTypeString_ValidEnumValues_ValidStrings
OK

2.3.4 CANSpecificationDeserializerTests

Deserialize_NoData_ReturnsTrueAndEmptySpecification
OK
Deserialize_SingleMessageNoSignals_ReturnsTrueAndMessageData
OK
Deserialize_SingleMessageOneSignal_ReturnsTrueAndSignalData
OK
Deserialize_MultipleMessages_ReturnsTrueAndAllMessages
OK
Deserialize_EmptyXML_ReturnsFalseAndSetsError
OK

2.3.5 CompilerBaseTests

Deserialize_EmptyData_ReturnsFalse
OK

Deserialize_EmptyBaseData_ReturnsTrue
OK
Deserialize_InvalidBaseDataXML_ReturnsFalse
OK
Deserialize_BaseDataWithEnvironmentVariables_EnvironmentVariablesDeserialized
OK
Deserialize_CompilerWithCustomAttributes_CustomAttributesDeserialized
OK
Serialize_TestCompiler_ReturnsValidXML
OK
Deserialize_SerializedTestCompiler_CompilersAreEqual
OK

2.3.6 CompilerFactoryTests

GetCompiler_EmptyXML_NullCompiler
OK
GetCompiler_ValidTestCompilerXML_TestCompiler
OK
GetCompiler_ValidGCCCompilerXML_GCCCompiler
OK

2.3.7 DBCParserTests

Parse_NoModuleDirectiveInData_EmptyModuleList
OK
Parse_NoModulesInModuleDirective_EmptyModuleList
OK
Parse_ModulesInData_NonEmptyModuleList
OK
Parse_NoAttributesInData_EmptyAttributeList
OK
Parse_AttributesInData_NonEmptyAttributeList
OK
Parse_NoMessagesInData_EmptyMessageList
OK
Parse_SingleMessageInData_SingleMessageInList

OK
Parse_SingleMessageWithMultipleSignalsInData_SingleMessageWithMultipleSignalsInList
OK
Parse_MultipleMessagesWithMultipleSignalsInData_MultipleMessagesWithMultipleSignalsInList
OK
Parse_SingleMessageWithMultipleConsumersInData_SingleMessageWithMultipleConsumersInList
OK
Parse_SingleMessageWithAssociatedAttributesInData_SingleMessageWithAttributesInList
OK
Parse_SingleMessageWithUnmappedSendType_SingleMessageWithUnsupportedSendType
OK
Parse_SingleMessageWithoutAttributesInData_SingleMessageWithDefaultAttributes
OK

2.3.8 FunctionDefinitionDeserializerTests

Deserialize_ValidXML_ReturnsTrueAndSetsFunctionParameters
OK
Deserialize_EmptyXML_ReturnsFalse
OK
Deserialize_NoFunctionDefinitionElement_ReturnsFalseAndSetsErrorText
OK

2.3.9 LayoutDefinitionDeserializerTests

Deserialize_EmptyXML_ReturnsFalseAndSetsErrorMessage
OK
Deserialize_SingleDisplayAreaXml_ReturnsTrueAndSetsDisplayParameters
OK
Deserialize_DisplayAreaWithChild_ReturnsTrueAndSetsChildParameters

OK

2.3.10 LayoutDefinitionTests

HasMenu_NoMenuDefinitionSet_ReturnsFalse
OK
HasMenu_MenuDefinitionSet_ReturnsTrue
OK
GetMenu_NoMenuDefinitionSet_ReturnsNull
OK
GetMenu_MenuDefinitionSet_ReturnsMenuDefinition
OK
SetMenu_NoDisplayArea_CreatesDisplayAreaForMenuDefinition
OK
SetMenu_ExistingDisplayArea_ExistingDisplayAreaHoldsMenuDefinition
OK

2.3.11 MenuDefinitionDeserializerTests

Deserialize_NoData_ReturnsTrueAndEmptySpecification
OK
Deserialize_OneMenuItemSingleLabelWidgetAndSingleCommand_ReturnsTrueAndMenuItem
OK
Deserialize_OneMenuItemManyLabelWidgetsAndManyCommandMappings_ReturnsTrueAndMenuItem
OK
Deserialize_NestedMenuItems_ReturnsTrueAndMenuHierarchy
OK

2.3.12 MenuItemTests

AddSubMenuItem_ValidMenuItem_AddsMenuItemToParent
OK
AddLabelWidget_ValidLabelWidget_AddsLabelWidgetToParent
OK
MoveSubMenuItemUp_MenuItemIsSecondInList_MenuItemBecomesFirstInList

OK
MoveSubMenuItemUp_MenuItemIsFirstInList_MenuItemDoesNotMove
OK
MoveSubMenuItemDown_MenuItemIsFirstInList_MenuItemBecomesSecondInList
OK
MoveSubMenuItemDown_MenuItemIsLastInList_MenuItemDoesNotMove
OK

2.3.13 ProjectDeserializerTests

Deserialize_ValidXML_ReturnsTrueAndSetsProjectParameters
OK
Deserialize_EmptyXML_ReturnsFalseAndSetsErrorText
OK
Deserialize_NoProjectElement_ReturnsFalseAndSetsErrorText
OK

2.3.14 RootMenuItemContainerTests

AddMenuItem_MenuItemIsNull_NoMenuItemAdded
OK
AddMenuItem_ValidMenuItem_MenuItemAdded
OK
RemoveMenuItem_KnownMenuItem_MenuItemIsRemoved
OK
RemoveMenuItem_UnknownMenuItem_NoMenuItemRemoved
OK
RemoveMenuItem_MenuItemIsNull_NoMenuItemRemoved
OK
MoveMenuItemUp_MenuItemIsSecondInList_MenuItemBecomesFirstInList
OK
MoveMenuItemUp_MenuItemIsFirstInList_MenuItemDoesNotMove
OK
MoveMenuItemDown_MenuItemIsFirstInList_MenuItemBecomesSecondInList

OK
MoveMenuItemDown_MenuItemIsLastInList_MenuItemDoesNotMove
OK

2.3.15 SignalMappingDeserializerTests

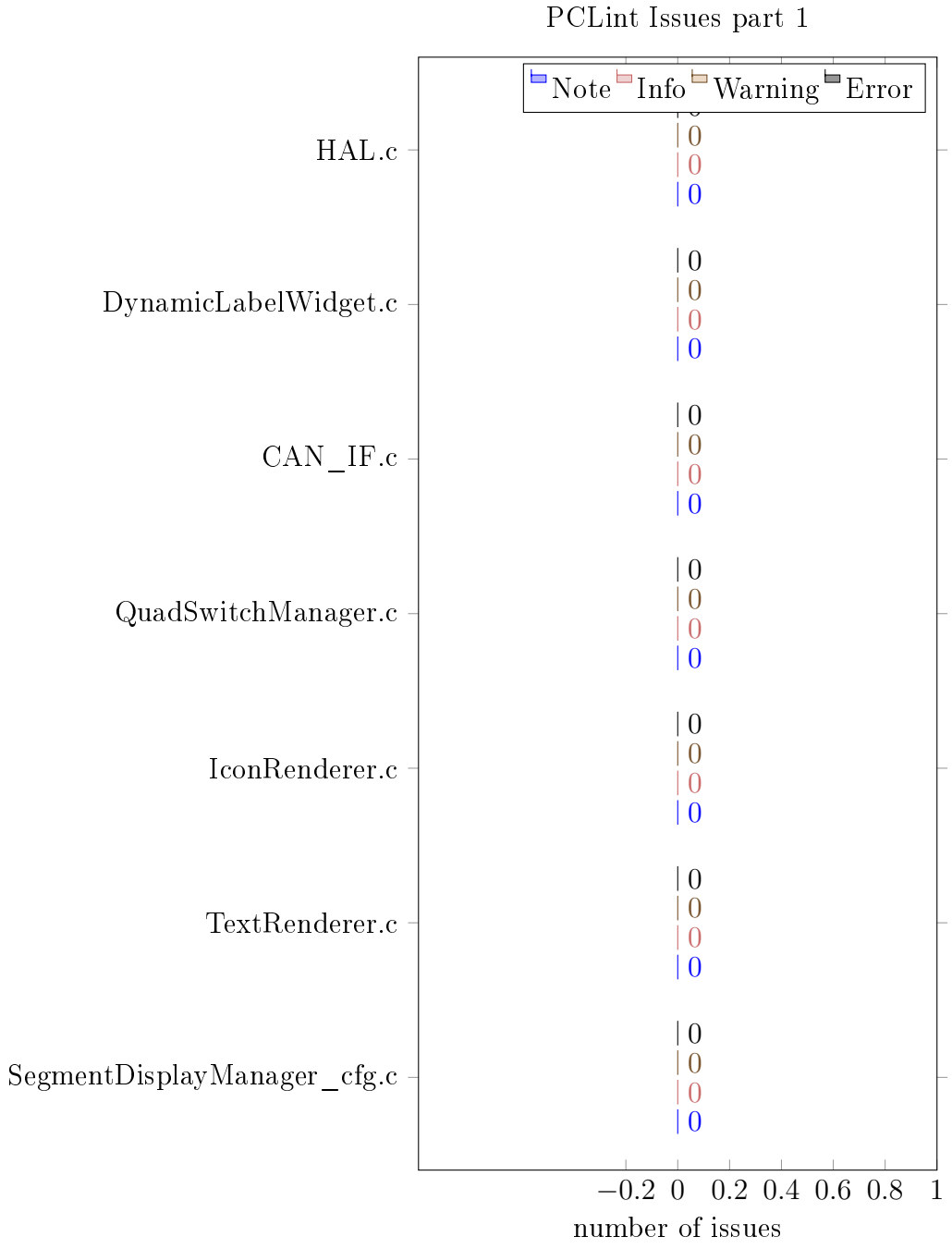
Deserialize_EmptyXML_ReturnsFalseAndNoMappings
OK
Deserialize_ValidXMLWithoutMappings_ReturnsTrueAndNoMappings
OK
Deserialize_ValidXMLPointToPointMapping_ReturnsTrueAndOneMapping
OK
Deserialize_ValidXMLPointToMultiPointMapping_ReturnsTrueAndOneMapping
OK

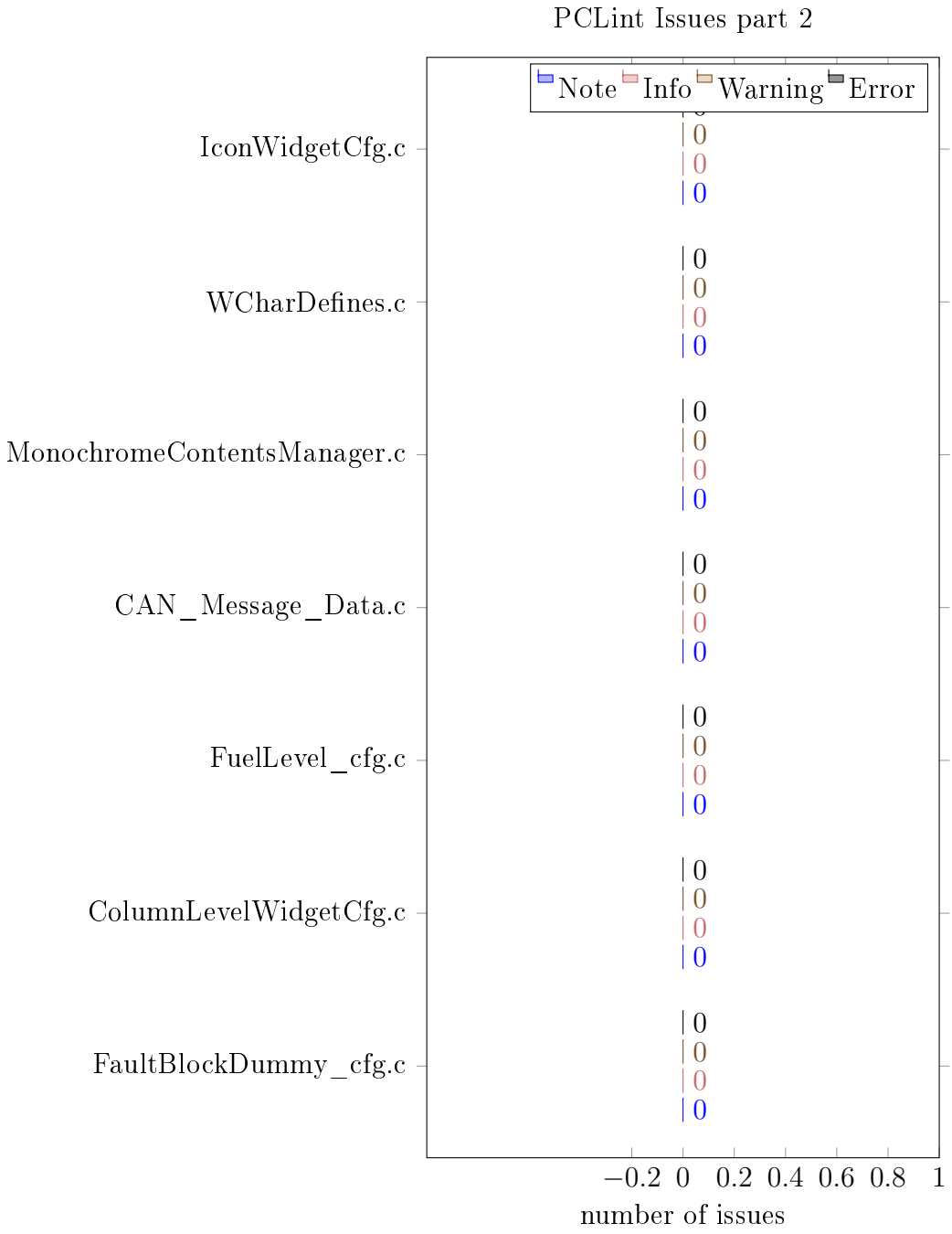
3 Static Analysis

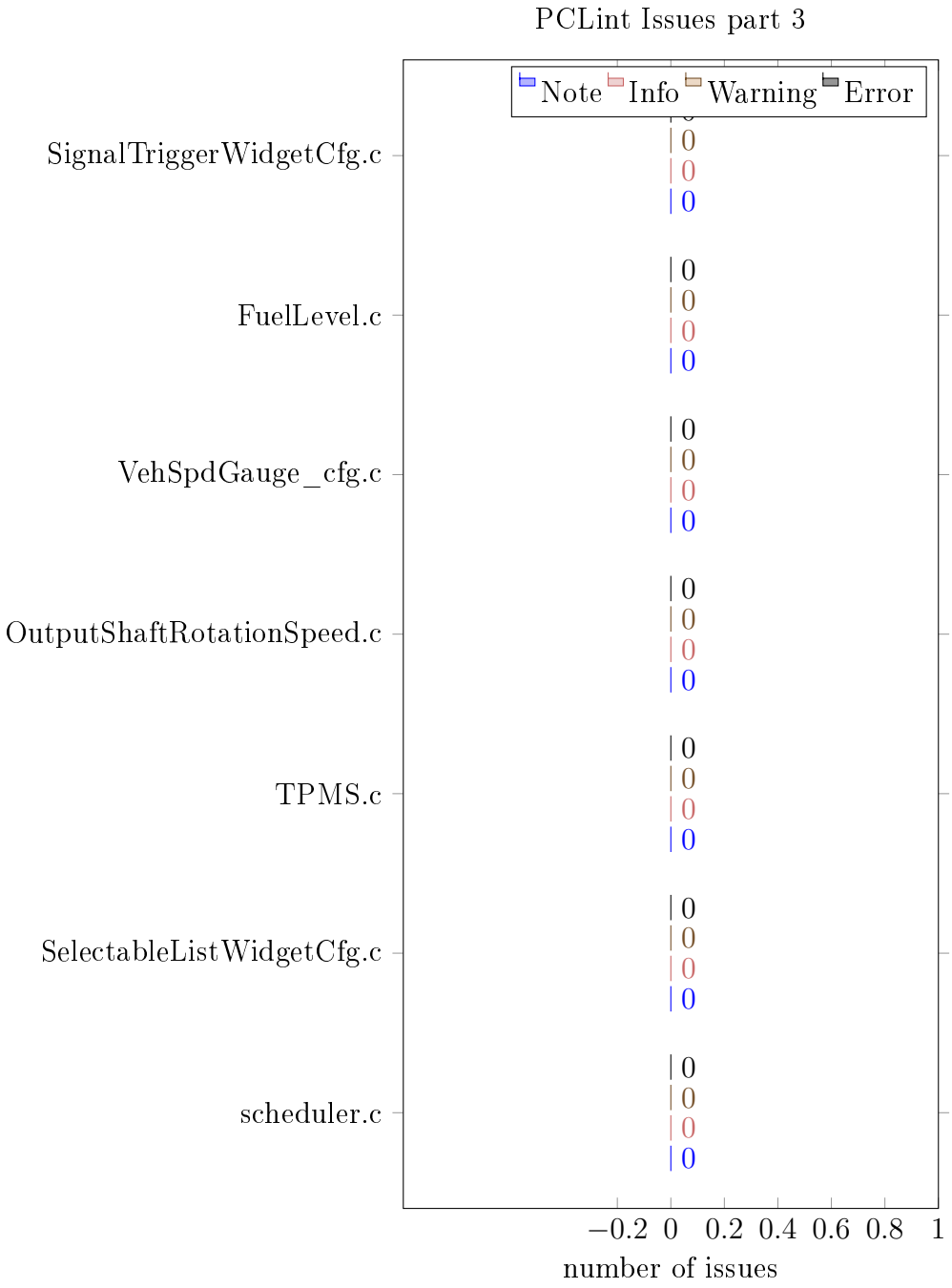
This section consists of the CppCheck- and PCLint issues produced by the tests.

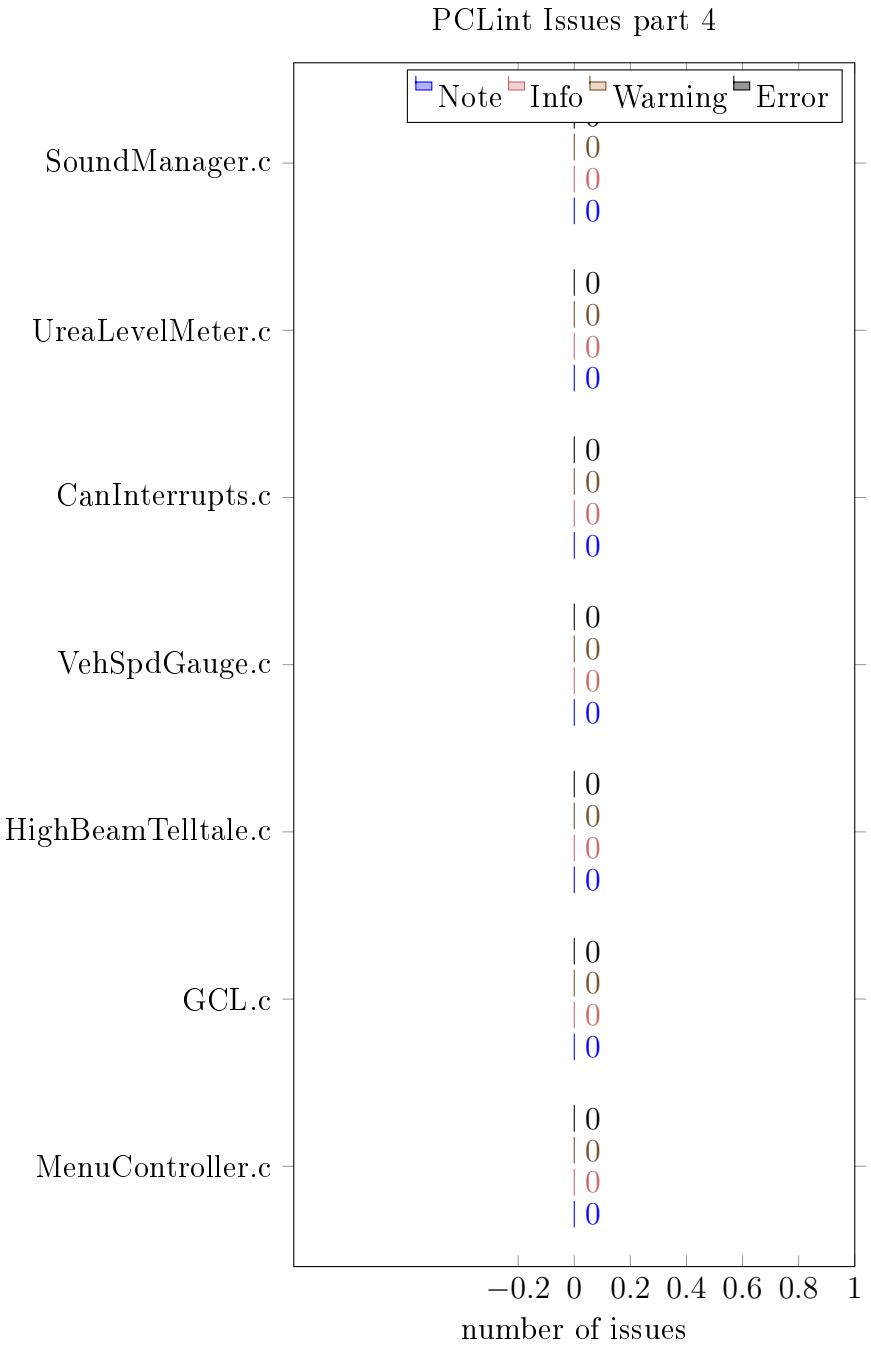
CppCheck Issues

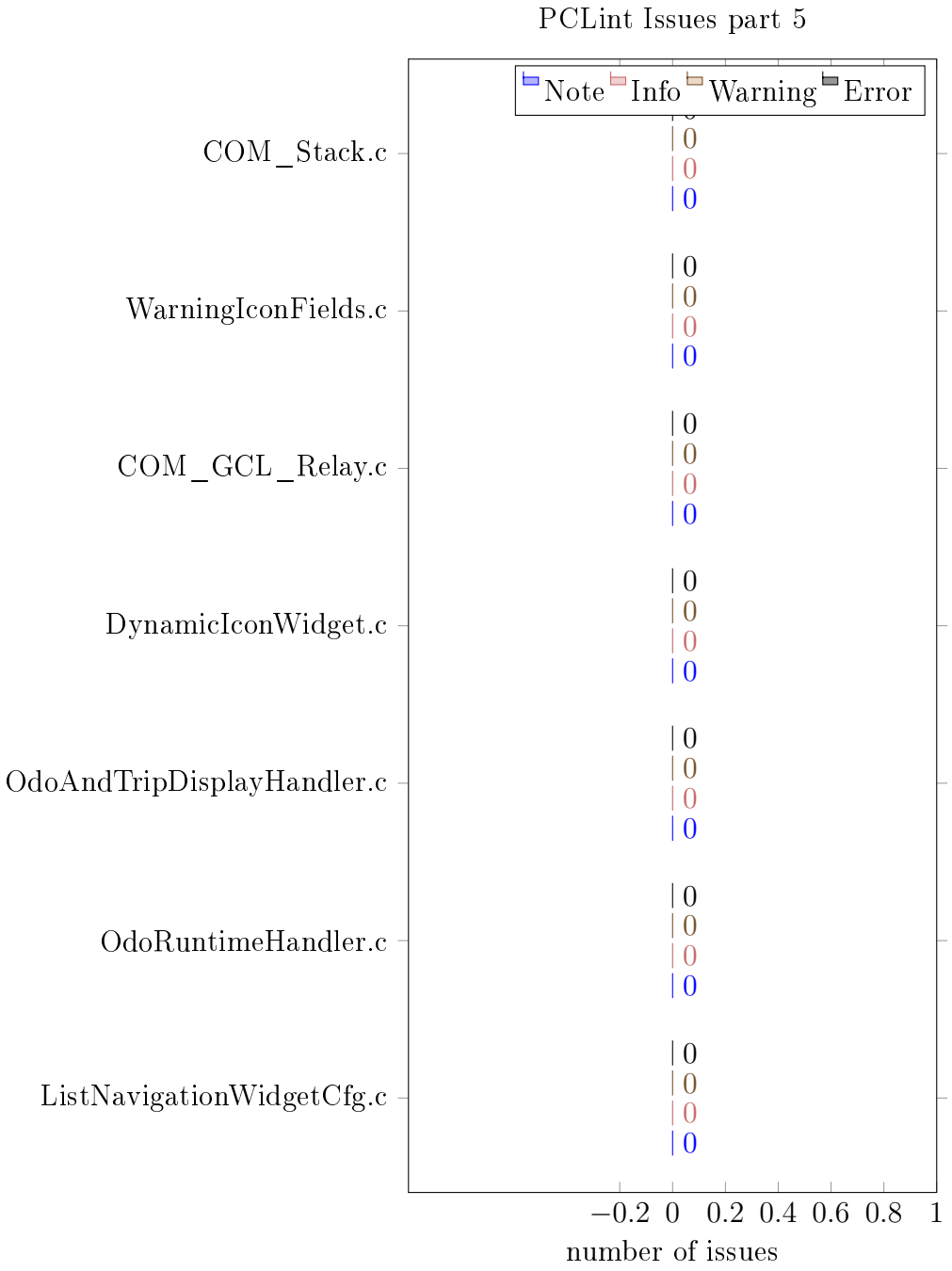
PCLint Issues

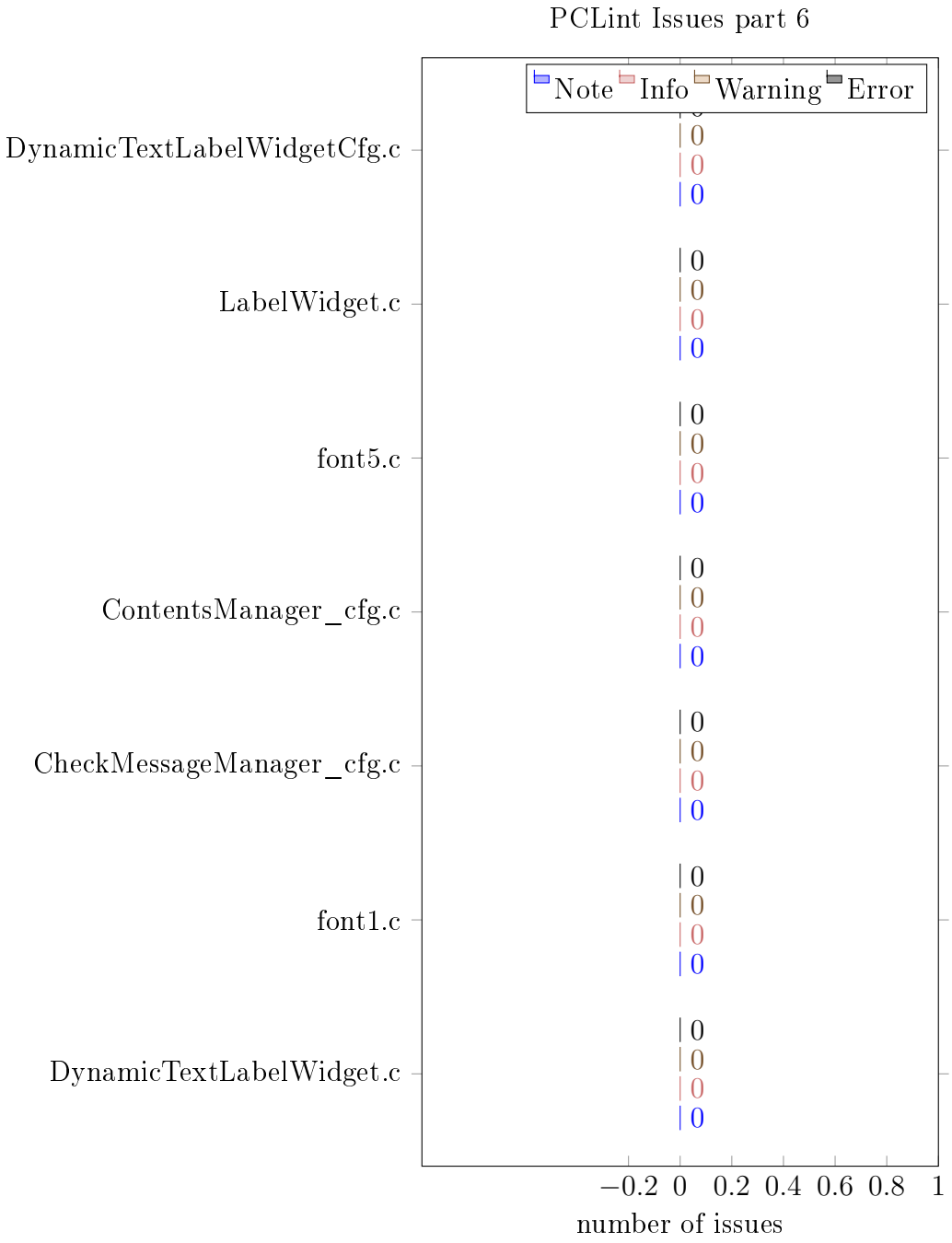


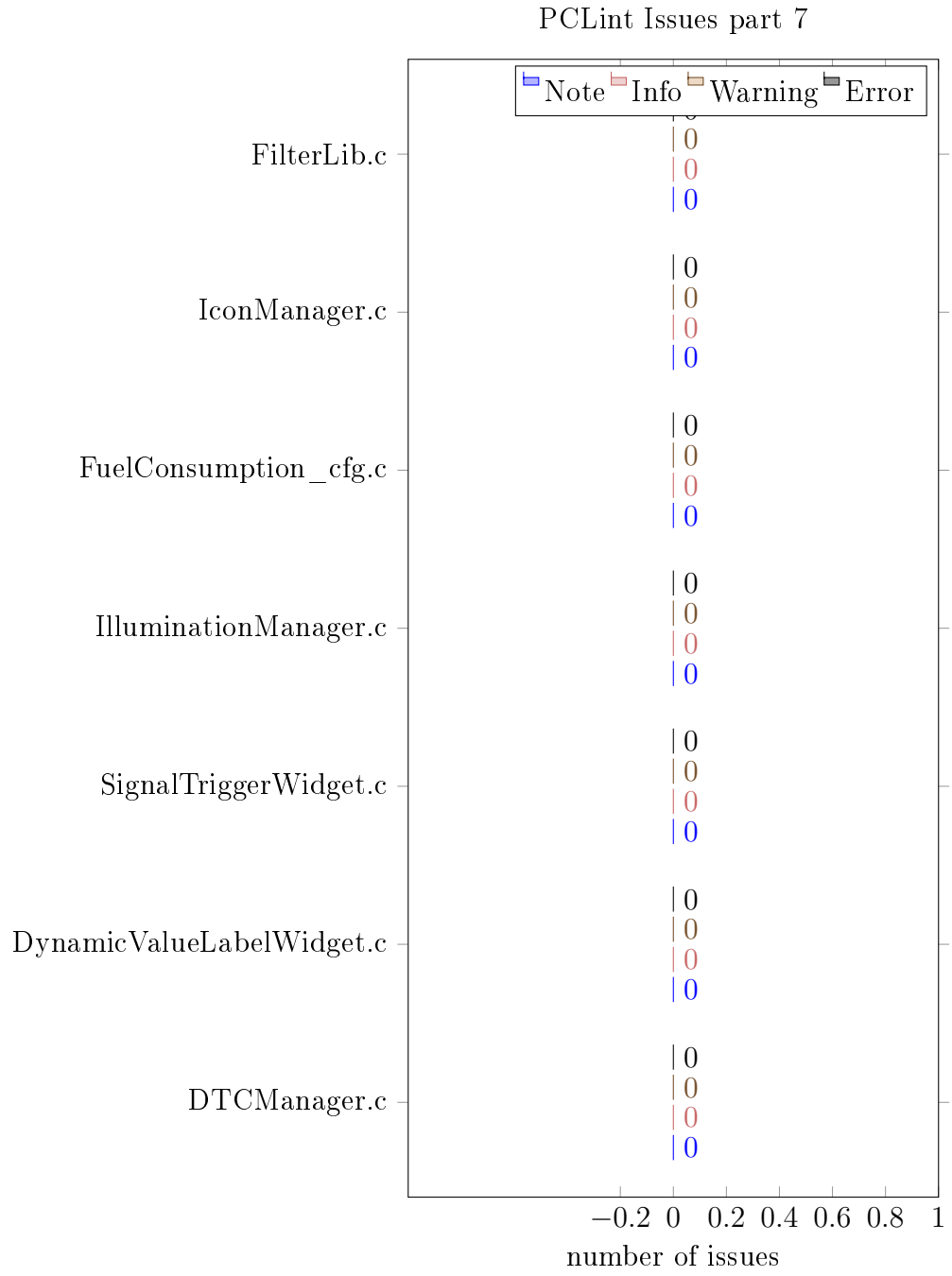

PCLint Issues part 2
Note
Info
Warning
Error
IconWidgetCfg.c
WCharDefines.c
MonochromeContentsManager.c
CAN_Message_Data.c
FuelLevel_cfg.c
ColumnLevelWidgetCfg.c
FaultBlockDummy_cfg.c
0
−0.2
0.2
0.4
0.6
0.8
1
number of issues

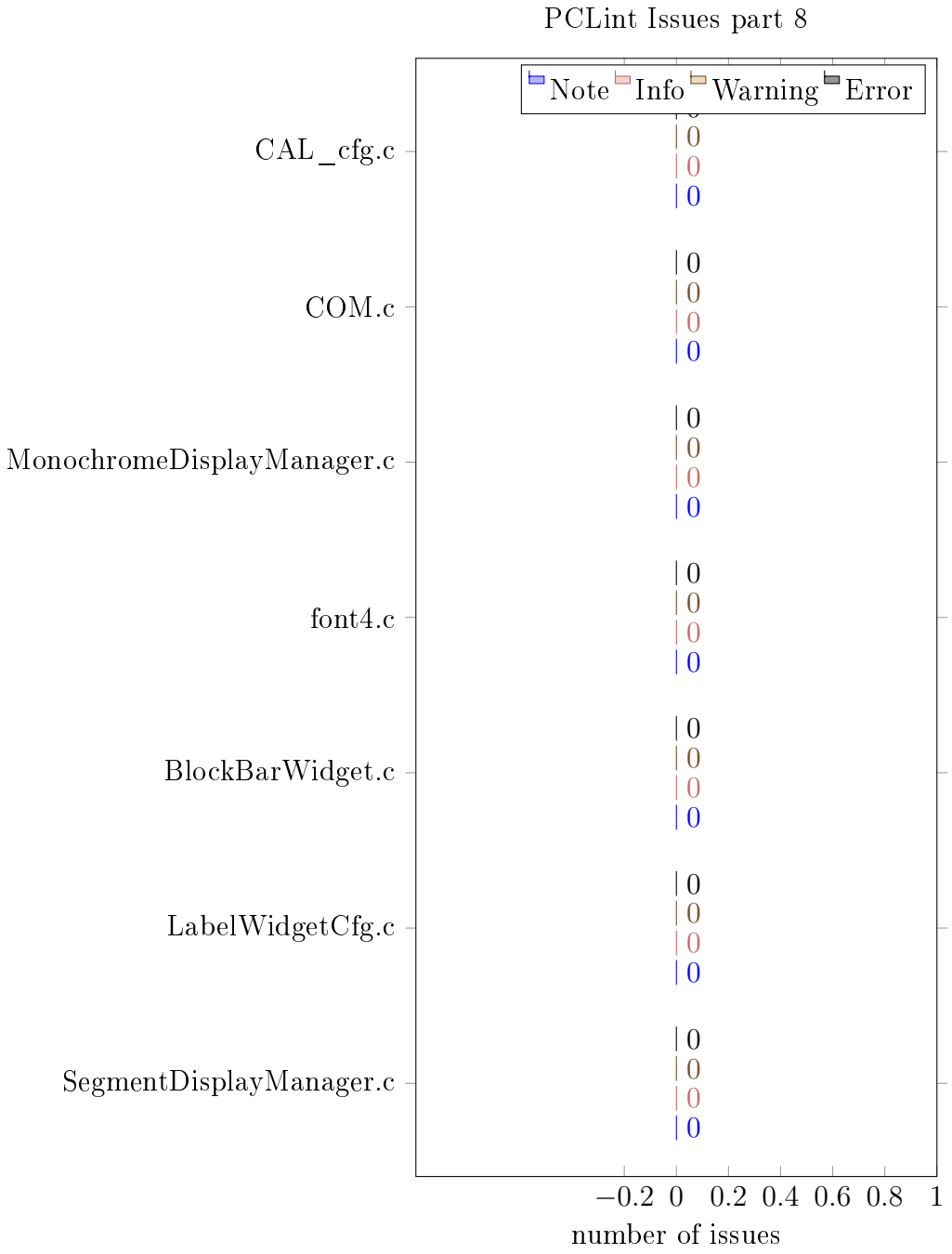

PCLint Issues part 3
Note
Info
Warning
Error
SignalTriggerWidgetCfg.c
FuelLevel.c
VehSpdGauge_cfg.c
OutputShaftRotationSpeed.c
TPMS.c
SelectableListWidgetCfg.c
scheduler.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues

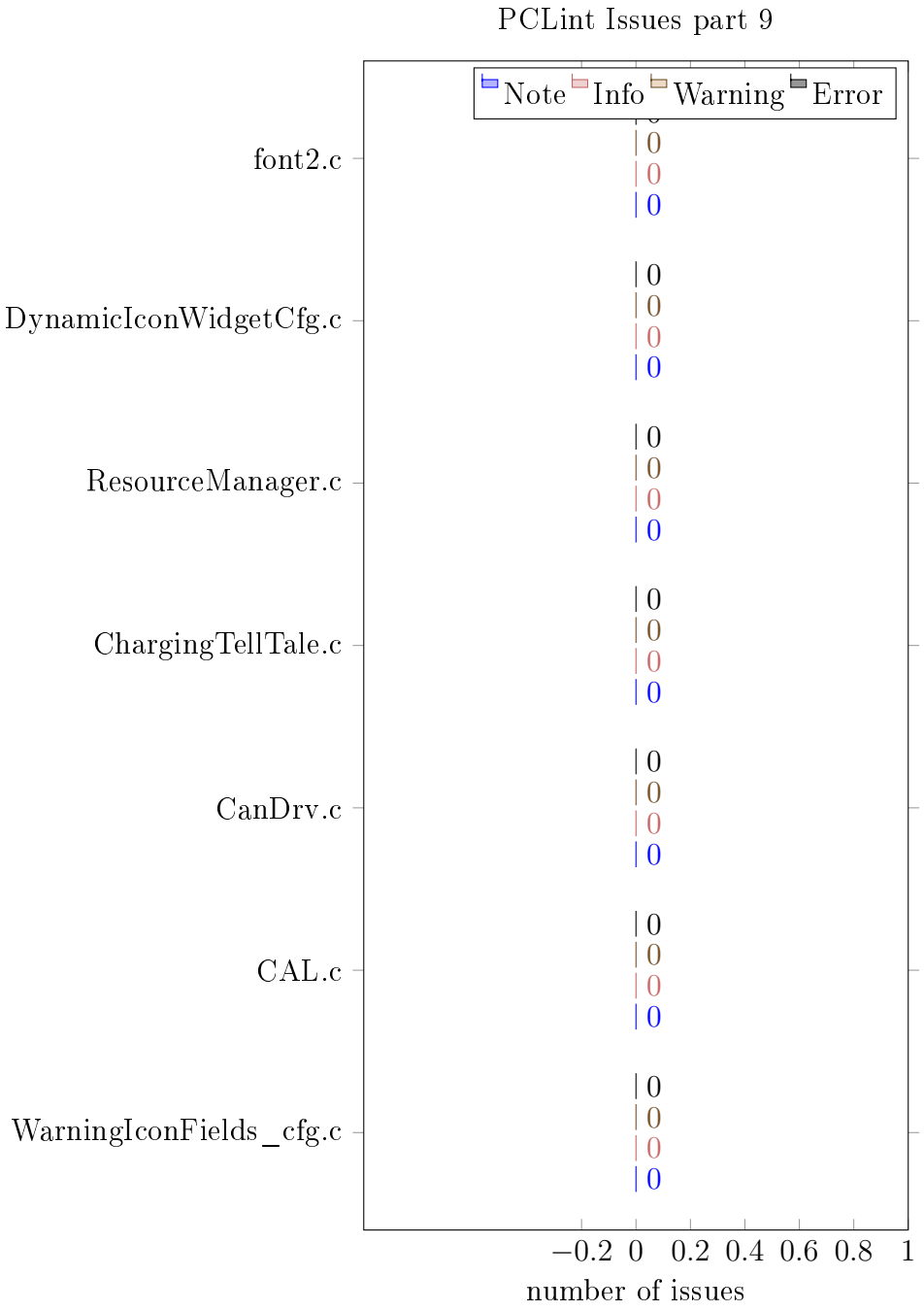

PCLint Issues part 4
Note
Info
Warning
Error
SoundManager.c
UreaLevelMeter.c
CanInterrupts.c
VehSpdGauge.c
HighBeamTelltale.c
GCL.c
MenuController.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues

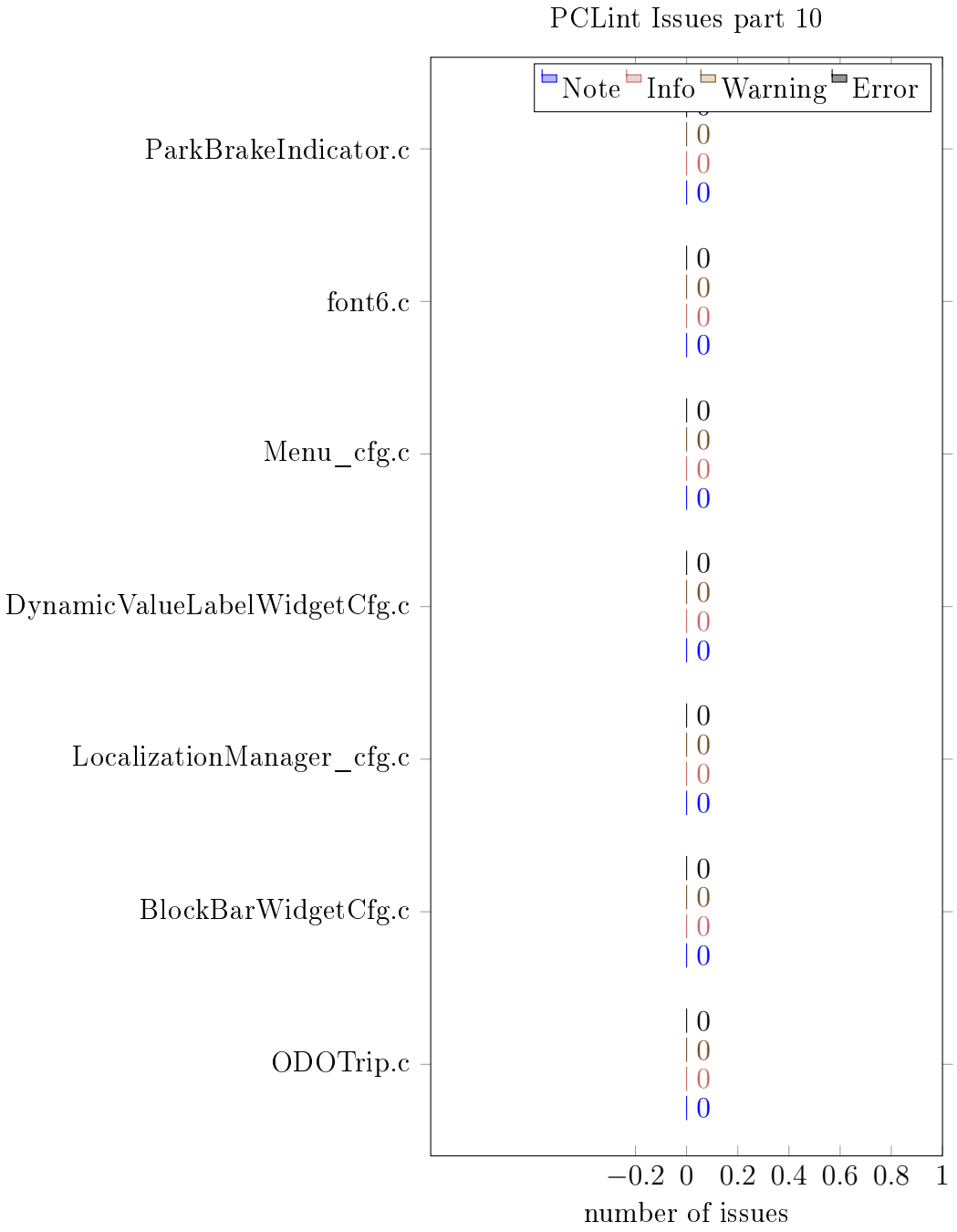

PCLint Issues part 5
Note
Info
Warning
Error
COM_Stack.c
WarningIconFields.c
COM_GCL_Relay.c
DynamicIconWidget.c
OdoAndTripDisplayHandler.c
OdoRuntimeHandler.c
ListNavigationWidgetCfg.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues

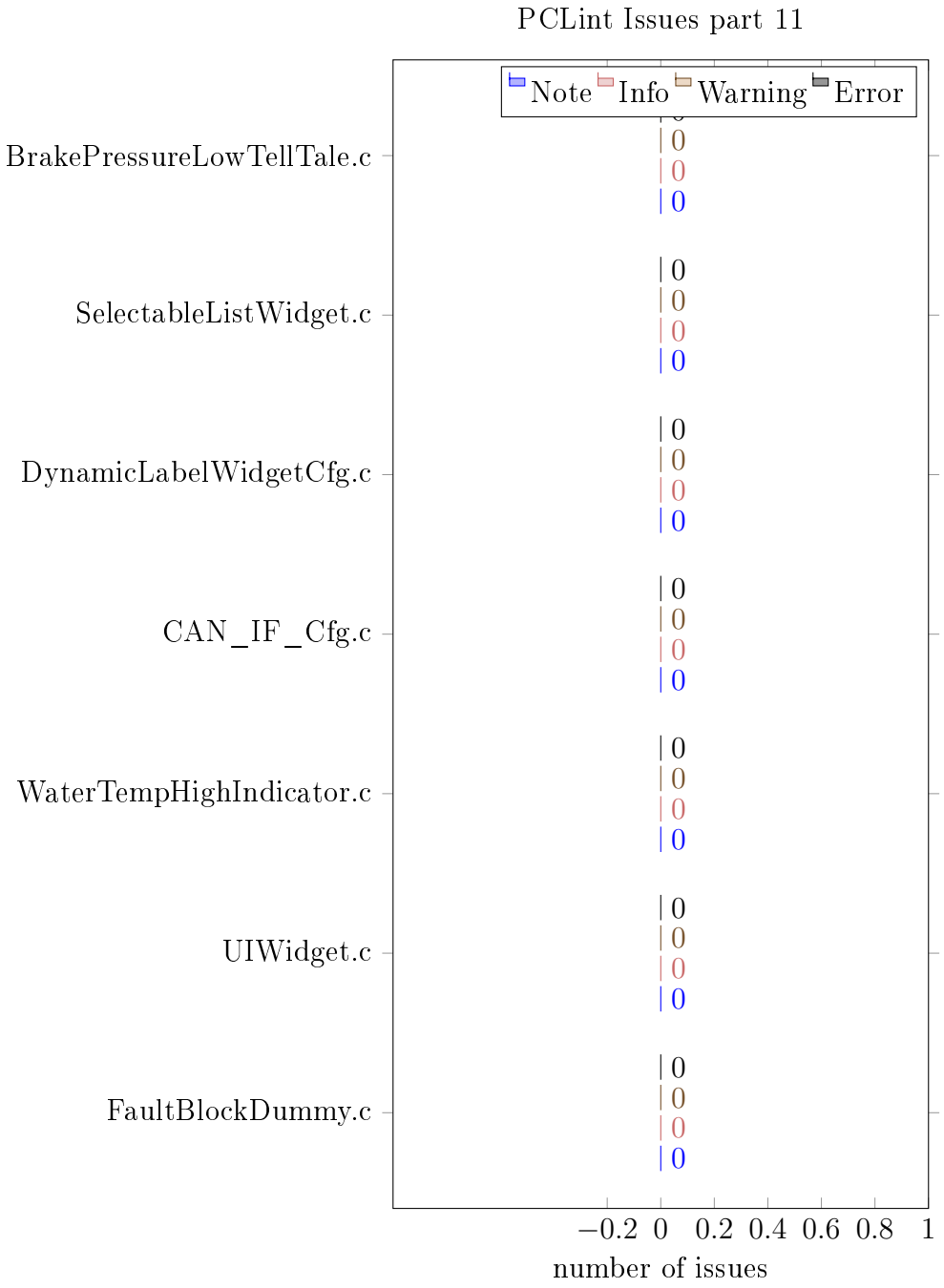

PCLint Issues part 6
Note
Info
Warning
Error
DynamicTextLabelWidgetCfg.c
LabelWidget.c
font5.c
ContentsManager_cfg.c
CheckMessageManager_cfg.c
font1.c
DynamicTextLabelWidget.c
0
−0.2
0
0.2
0.4
0.6
0.8
1
number of issues

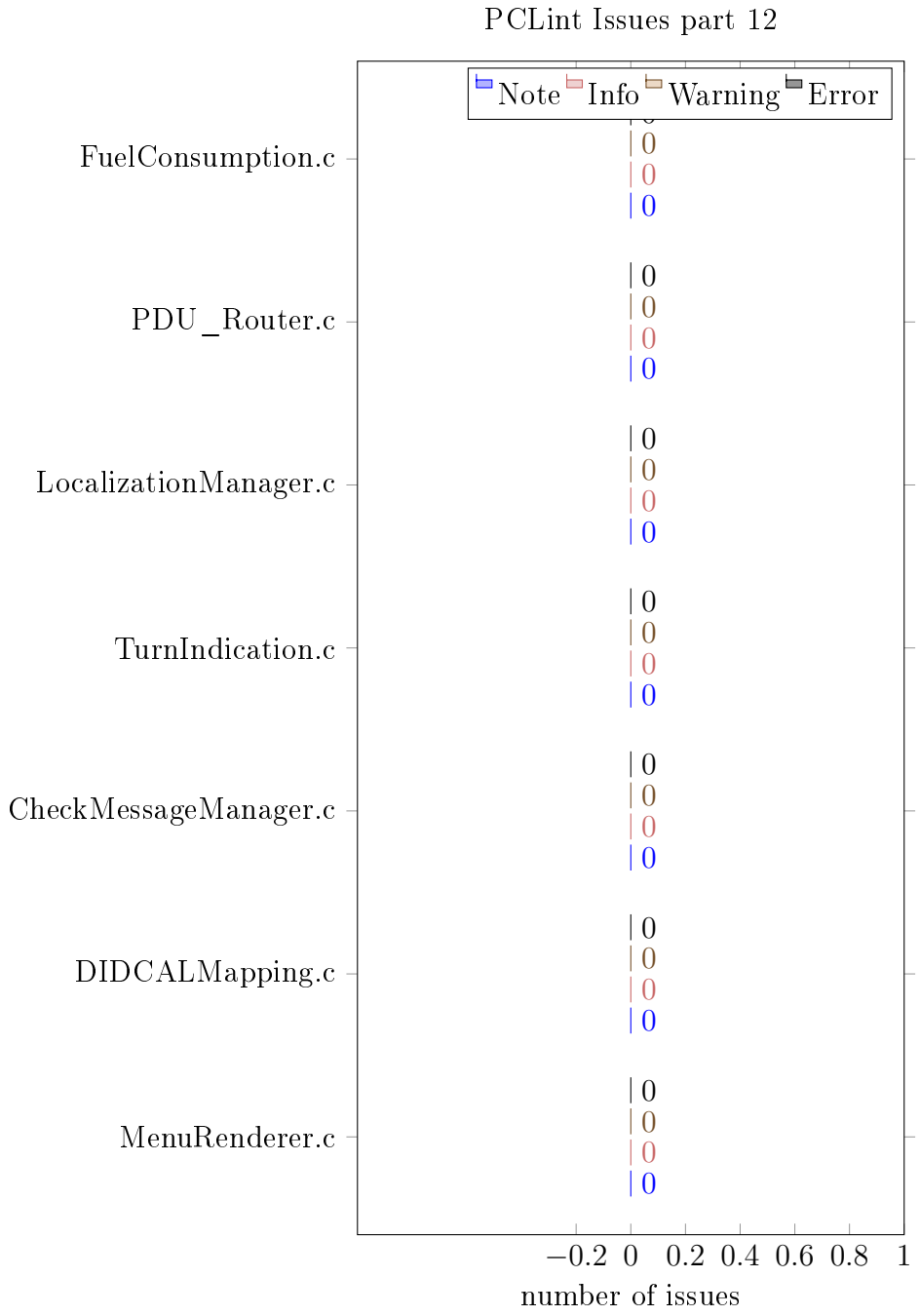

PCLint Issues part 7
Note
Info
Warning
Error
FilterLib.c
IconManager.c
FuelConsumption_cfg.c
IlluminationManager.c
SignalTriggerWidget.c
DynamicValueLabelWidget.c
DTCManager.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues

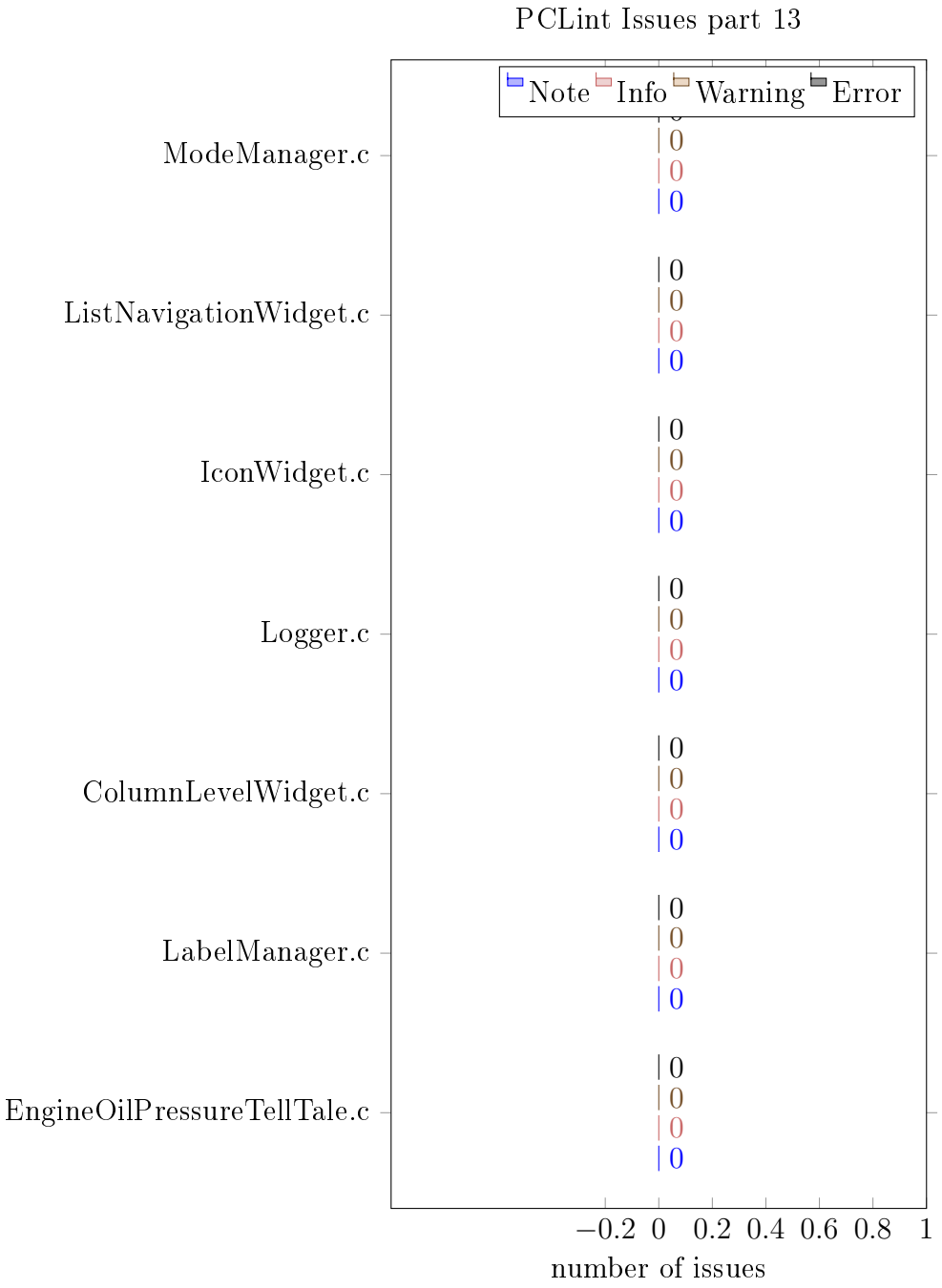

PCLint Issues part 8
Note
Info
Warning
Error
CAL_cfg.c
COM.c
MonochromeDisplayManager.c
font4.c
BlockBarWidget.c
LabelWidgetCfg.c
SegmentDisplayManager.c
0
−0.2
0
0.2
0.4
0.6
0.8
1
number of issues

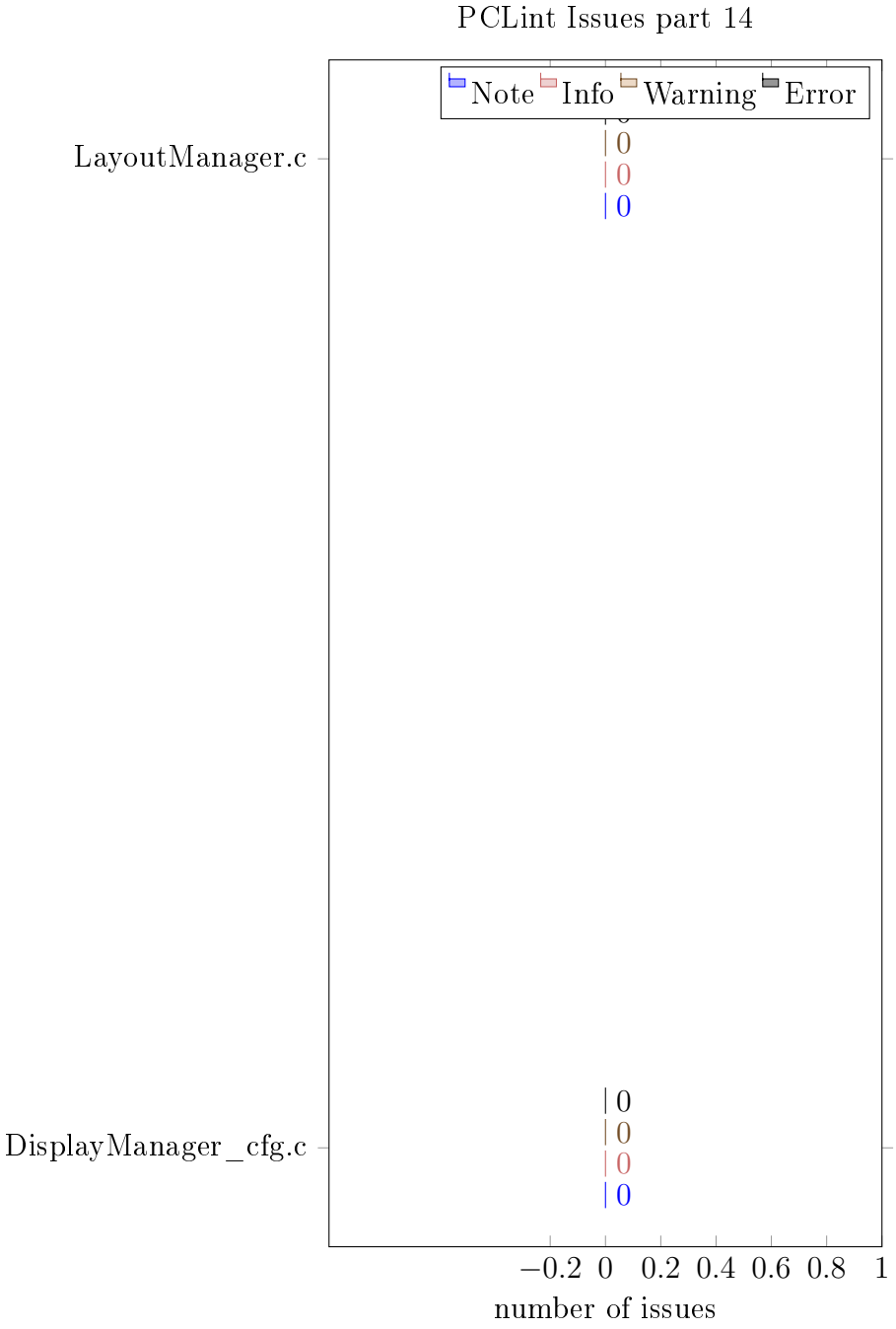

PCLint Issues part 9
Note
Info
Warning
Error
font2.c
DynamicIconWidgetCfg.c
ResourceManager.c
ChargingTellTale.c
CanDrv.c
CAL.c
WarningIconFields_cfg.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues


PCLint Issues part 10
Note
Info
Warning
Error
ParkBrakeIndicator.c
font6.c
Menu_cfg.c
DynamicValueLabelWidgetCfg.c
LocalizationManager_cfg.c
BlockBarWidgetCfg.c
ODOTrip.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues


PCLint Issues part 11
Note
Info
Warning
Error
BrakePressureLowTellTale.c
SelectableListWidget.c
DynamicLabelWidgetCfg.c
CAN_IF_Cfg.c
WaterTempHighIndicator.c
UIWidget.c
FaultBlockDummy.c
0
−0.2
0
0.2
0.4
0.6
0.8
1
number of issues


PCLint Issues part 12
Note
Info
Warning
Error
FuelConsumption.c
PDU_Router.c
LocalizationManager.c
TurnIndication.c
CheckMessageManager.c
DIDCALMapping.c
MenuRenderer.c
0
−0.2
0
0.2
0.4
0.6
0.8
1
number of issues


PCLint Issues part 13
Note
Info
Warning
Error
ModeManager.c
ListNavigationWidget.c
IconWidget.c
Logger.c
ColumnLevelWidget.c
LabelManager.c
EngineOilPressureTellTale.c
0
−0.2 0 0.2 0.4 0.6 0.8 1
number of issues


PCLint Issues part 14
Note
Info
Warning
Error
LayoutManager.c
0
0
0
DisplayManager_cfg.c
0
0
0
0
−0.2
0
0.2
0.4
0.6
0.8
1
number of issues