Polyspace Bug Finder

Coding Standards Report for Project: PolyspaceProject

Report Author: mabualqu

Polyspace Bug Finder: Coding Standards Report for Project: PolyspaceProject

by Report Author: mabualqu

Published 22-Sep-2021 19:58:42

Analysis Author(s): MathWorks
Polyspace Version(s): Polyspace Bug Finder 3.6 (R2022a Prerelease)
Project Version(s): 1.0

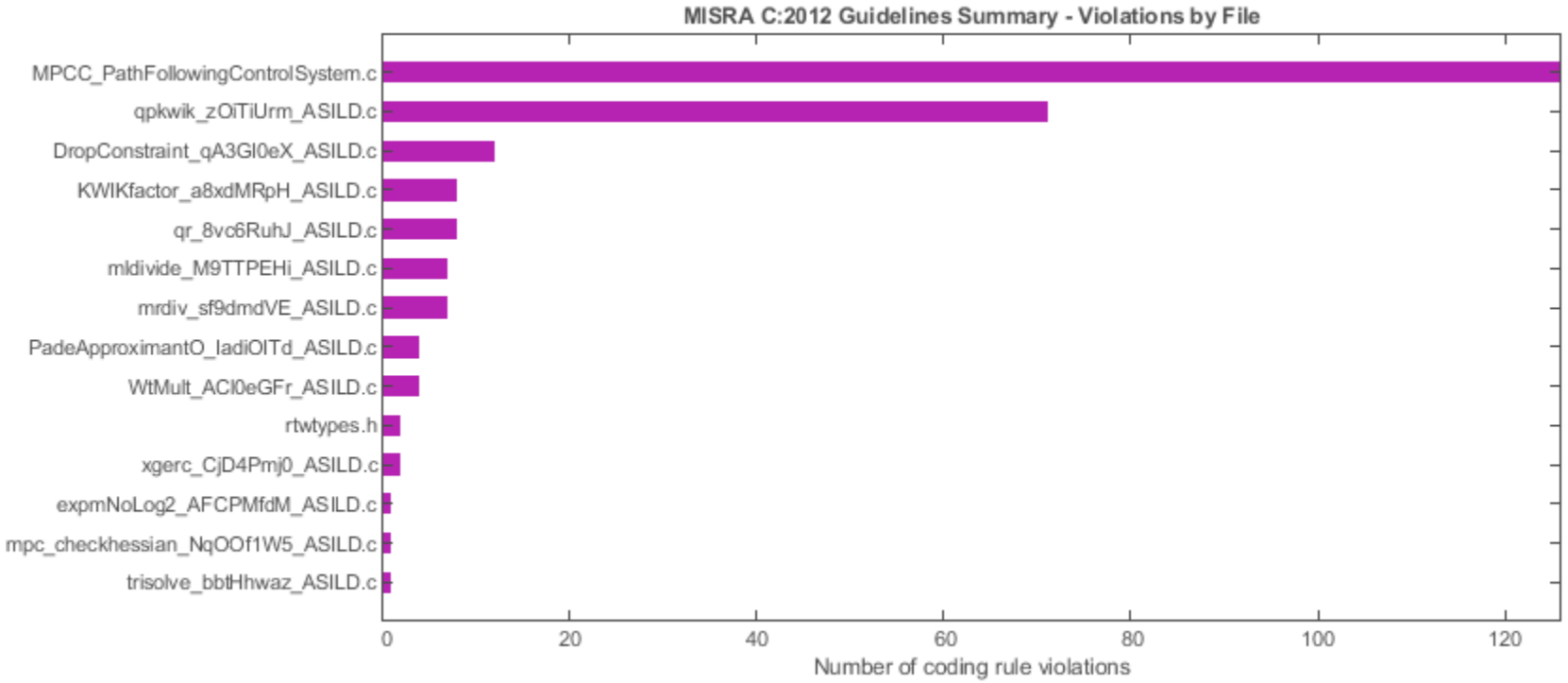
Result Folder(s):
C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\MPCController\cStdChks\MPCController

Table of Contents

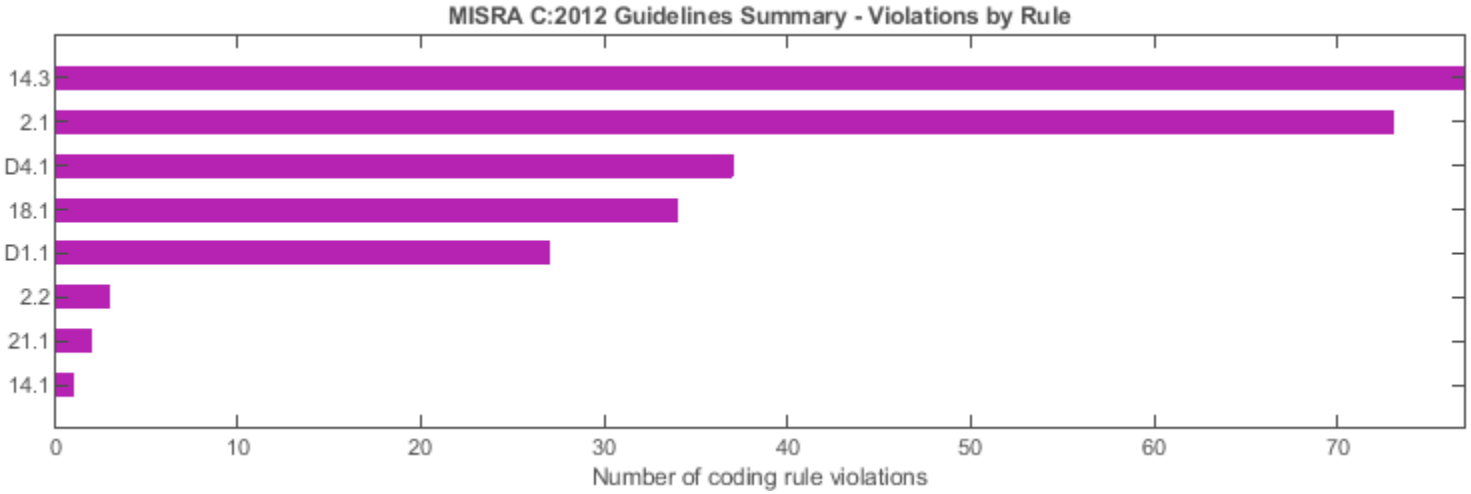
Chapter 1. MISRA C:2012 Guidelines 1
MISRA C:2012 Guidelines Summary - Violations by File 1
MISRA C:2012 Guidelines Summary - Violations by Rule 2
MISRA C:2012 Guidelines Summary for all Files 2
MISRA C:2012 Guidelines Summary for Enabled Guidelines 4
MISRA C:2012 Guidelines Violations 8
Chapter 2. Appendix 1 - Configuration Settings 37
Polyspace Settings 37
Coding Standard Configuration 38
Specified Constraints 45
Constraints - User Functions 45
Constraints - Standard Functions 46
Chapter 3. Appendix 2 - Definitions 48
..... 48

Chapter 1. MISRA C:2012 Guidelines

MISRA C:2012 Guidelines Summary - Violations by File



MISRA C:2012 Guidelines Summary - Violations by Rule



MISRA C:2012 Guidelines Summary for all Files

File	Total
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCC_PathFollowingControlSystem.c	126
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCC_PathFollowingControlSystem.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCController.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCController.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCController_data.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCController_private.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCController_types.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\DropConstraint_qA3GI0eX_ASILD.c	12
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\DropConstraint_qA3GI0eX_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\KWIKfactor_a8xdMRpH_ASILD.c	8
Total	**254**

File	Total
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\KWIKfactor_a8xdMRpH_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\PadeApproximantO_IadiOITd_ASILD.c	4
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\PadeApproximantO_IadiOITd_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\Unconstrained_yqrrq9zw_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\Unconstrained_yqrrq9zw_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\WtMult_ACl0eGFr_ASILD.c	4
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\WtMult_ACl0eGFr_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\abs_MNoTU925_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\abs_MNoTU925_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\abs_ZbB77Og9_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\abs_ZbB77Og9_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\asr_s32_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\asr_s32_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\expmNoLog2_AFCPMfdM_ASILD.c	1
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\expmNoLog2_AFCPMfdM_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\maximum2_HFCADrbr_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\maximum2_HFCADrbr_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\maximum_5j5McOZo_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\maximum_5j5McOZo_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mldivide_M9TTPEHi_ASILD.c	7
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mldivide_M9TTPEHi_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mpc_checkhessian_NqOOf1W5_ASILD.c	1
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mpc_checkhessian_NqOOf1W5_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mrdiv_sf9dmdVE_ASILD.c	7
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mrdiv_sf9dmdVE_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mtimes_rj1908GZ_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mtimes_rj1908GZ_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\norm_o3AfMSX6_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\norm_o3AfMSX6_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\qpkwik_zOiTiUrm_ASILD.c	71
Total	**254**

File	Total
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\qpkwik_zOiTiUrm_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\qr_8vc6RuhJ_ASILD.c	8
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\qr_8vc6RuhJ_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\rt_hypotd_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\rt_hypotd_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\rt_roundd_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\rt_roundd_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\rtwtypes.h	2
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\trisolve_bbtHhwaz_ASILD.c	1
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\trisolve_bbtHhwaz_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xgemv_6OX2SCO5_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xgemv_6OX2SCO5_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xgerc_CjD4Pmj0_ASILD.c	2
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xgerc_CjD4Pmj0_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xnrm2_CVSaOtJB_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xnrm2_CVSaOtJB_ASILD.h	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xpotrf_YRopEtIA_ASILD.c	0
C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xpotrf_YRopEtIA_ASILD.h	0
Total	**254**

MISRA C:2012 Guidelines Summary for Enabled Guidelines

Guideline	Description	Mode	Total
1.1	The program shall contain no violations of the standard C syntax and constraints, and shall not exceed the implementation's translation limits.	required	0
1.3	There shall be no occurrence of undefined or critical unspecified behaviour.	required	0
2.1	A project shall not contain unreachable code.	required	73
2.2	There shall be no dead code.	required	3
2.7	There should be no unused parameters in functions.	readability	0
3.1	The character sequences /* and // shall not be used within a comment.	required	0
Total			**254**

Guideline	Description	Mode	Total
3.2	Line-splicing shall not be used in // comments.	required	0
4.1	Octal and hexadecimal escape sequences shall be terminated.	required	0
5.1	External identifiers shall be distinct.	required	0
5.2	Identifiers declared in the same scope and name space shall be distinct.	required	0
5.4	Macro identifiers shall be distinct.	required	0
5.5	Identifiers shall be distinct from macro names.	required	0
5.6	A typedef name shall be a unique identifier.	required	0
5.7	A tag name shall be a unique identifier.	required	0
5.8	Identifiers that define objects or functions with external linkage shall be unique.	required	0
6.1	Bit-fields shall only be declared with an appropriate type.	required	0
6.2	Single-bit named bit fields shall not be of a signed type.	required	0
7.4	A string literal shall not be assigned to an object unless the object's type is "pointer to const-qualified char".	required	0
8.2	Function types shall be in prototype form with named parameters.	required	0
8.3	All declarations of an object or function shall use the same names and type qualifiers.	required	0
8.6	An identifier with external linkage shall have exactly one external definition.	required	0
8.8	The static storage class specifier shall be used in all declarations of objects and functions that have internal linkage.	required	0
8.10	An inline function shall be declared with the static storage class.	required	0
8.12	Within an enumerator list, the value of an implicitly-specified enumeration constant shall be unique.	required	0
9.1	The value of an object with automatic storage duration shall not be read before it has been set.	mandatory	0
9.4	An element of an object shall not be initialized more than once.	required	0
11.1	Conversions shall not be performed between a pointer to a function and any other type.	required	0
11.2	Conversions shall not be performed between a pointer to an incomplete type and any other type.	required	0
11.3	A cast shall not be performed between a pointer to object type and a pointer to a different object type.	required	0
11.6	A cast shall not be performed between pointer to void and an arithmetic type.	required	0
11.7	A cast shall not be performed between pointer to object and a non-integer arithmetic type.	required	0
11.8	A cast shall not remove any const or volatile qualification from the type pointed to by a pointer.	required	0
12.2	The right hand operand of a shift operator shall lie in the range zero to one less than the width in bits of the essential type of the left hand operand.	required	0
12.5	The sizeof operator shall not have an operand which is a function parameter declared as "array of type".	mandatory	0
13.1	Initializer lists shall not contain persistent side effects.	required	0
Total			**254**

Guideline	Description	Mode	Total
13.2	The value of an expression and its persistent side effects shall be the same under all permitted evaluation orders.	required	0
13.5	The right hand operand of a logical && or || operator shall not contain persistent side effects.	required	0
13.6	The operand of the sizeof operator shall not contain any expression which has potential side effects.	mandatory	0
14.1	A loop counter shall not have essentially floating type.	advisory	1
14.2	A for loop shall be well-formed.	readability	0
14.3	Controlling expressions shall not be invariant.	required	77
15.6	The body of an iteration-statement or a selection-statement shall be a compound-statement.	required	0
17.1	The features of <stdarg.h> shall not be used.	required	0
17.2	Functions shall not call themselves, either directly or indirectly.	required	0
17.4	All exit paths from a function with non-void return type shall have an explicit return statement with an expression.	mandatory	0
17.6	The declaration of an array parameter shall not contain the static keyword between the [ ].	mandatory	0
18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand.	required	34
18.2	Subtraction between pointers shall only be applied to pointers that address elements of the same array.	required	0
18.3	The relational operators >, >=, < and <= shall not be applied to objects of pointer type except where they point into the same object.	required	0
18.6	The address of an object with automatic storage shall not be copied to another object that persists after the first object has ceased to exist.	required	0
18.7	Flexible array members shall not be declared.	required	0
18.8	Variable-length array types shall not be used.	required	0
19.1	An object shall not be assigned or copied to an overlapping object.	mandatory	0
20.2	The ', " or \ characters and the /* or // character sequences shall not occur in a header file name.	required	0
20.3	The #include directive shall be followed by either a <filename> or "filename"sequence.	required	0
20.4	A macro shall not be defined with the same name as a keyword.	required	0
20.6	Tokens that look like a preprocessing directive shall not occur within a macro argument.	required	0
20.7	Expressions resulting from the expansion of macro parameters shall be enclosed in parentheses.	required	0
20.9	All identifiers used in the controlling expression of #if or #elif preprocessing directives shall be #define'd before evaluation.	required	0
20.11	A macro parameter immediately following a # operator shall not immediately be followed by a ## operator.	required	0
20.12	A macro parameter used as an operand to the # or ## operators, which is itself subject to further macro replacement, shall only be used as an operand to these operators.	required	0
20.13	A line whose first token is # shall be a valid preprocessing directive.	required	0
Total			**254**

Guideline	Description	Mode	Total
20.14	All #else, #elif and #endif preprocessor directives shall reside in the same file as the #if, #ifdef or #ifndef directive to which they are related.	required	0
21.1	#define and #undef shall not be used on a reserved identifier or reserved macro name.	required	2
21.2	A reserved identifier or reserved macro name shall not be declared.	required	0
21.3	The memory allocation and deallocation functions of <stdlib.h> shall not be used.	required	0
21.4	The standard header file <setjmp.h> shall not be used.	required	0
21.5	The standard header file <signal.h> shall not be used.	required	0
21.6	The Standard Library input/output functions shall not be used.	required	0
21.7	The Standard Library functions atof, atoi, atol and atoll of <stdlib.h> shall not be used.	required	0
21.8	The Standard Library termination functions of <stdlib.h> shall not be used.	required	0
21.9	The Standard Library functions bsearch and qsort of <stdlib.h> shall not be used.	required	0
21.10	The Standard Library time and date functions shall not be used.	required	0
21.11	The standard header file <tgmath.h> shall not be used.	required	0
21.13	Any value passed to a function in <ctype.h> shall be representable as an unsigned char or be the value EOF.	mandatory	0
21.14	The Standard Library function memcmp shall not be used to compare null terminated strings.	required	0
21.15	The pointer arguments to the Standard Library functions memcpy, memmove and memcmp shall be pointers to qualified or unq ualified versions of compatible types.	required	0
21.16	The pointer arguments to the Standard Library function memcmp shall point to either a pointer type, an essentially signed type, an essentially unsigned type, an essentially Boolean type or an essentially enum type.	required	0
21.17	Use of the string handling functions from <string.h> shall not result in accesses beyond the bounds of the objects referenced by t heir pointer parameters.	mandatory	0
21.18	The size_t argument passed to any function in <string.h> shall have an appropriate value.	mandatory	0
21.19	The pointers returned by the Standard Library functions localeconv, getenv, setlocale or, strerror shall only be used as if they ha ve pointer to const-qualified type.	mandatory	0
21.20	The pointer returned by the Standard Library functions asctime, ctime, gmtime, localtime, localeconv, getenv, setlocale or strerr or shall not be used following a subsequent call to the same function.	mandatory	0
22.1	All resources obtained dynamically by means of Standard Library functions shall be explicitly released.	required	0
22.2	A block of memory shall only be freed if it was allocated by means of a Standard Library function.	mandatory	0
22.3	The same file shall not be open for read and write access at the same time on different streams.	required	0
22.4	There shall be no attempt to write to a stream which has been opened as read-only.	mandatory	0
22.5	A pointer to a FILE object shall not be dereferenced.	mandatory	0
22.6	The value of a pointer to a FILE shall not be used after the associated stream has been closed.	mandatory	0
Total			**254**

Guideline	Description	Mode	Total
22.7	The macro EOF shall only be compared with the unmodified return value from any Standard Library function capable of returning EOF.	required	0
22.8	The value of errno shall be set to zero prior to a call to an errno-setting-function.	required	0
22.9	The value of errno shall be tested against zero after calling an errno-setting-function.	required	0
22.10	The value of errno shall only be tested when the last function to be called was an errno-setting-function.	required	0
D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	required	27
D2.1	All source files shall compile without any compilation errors.	required	0
D4.1	Run-time failures shall be minimized.	required	37
D4.3	Assembly language shall be encapsulated and isolated.	required	0
D4.7	If a function returns error information, then that error information shall be tested.	required	0
D4.10	Precautions shall be taken in order to prevent the contents of a header file being included more than once.	required	0
D4.11	The validity of values passed to library functions shall be checked.	required	0
D4.14	The validity of values received from external sources shall be checked.	required	0
Total			**254**

MISRA C:2012 Guidelines Violations

Table 1.1. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController\MPCC_PathFollowingControlSystem.c

ID	Guideline	Message	Function	Severity	Status	Comment
141	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
142	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 824 to line 826.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
143	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
144	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 897 to line 899.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
145	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
146	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1081 to line 1083.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
147	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
148	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1087 to line 1089.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
46	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access ymin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
149	D4.1	Run-time failures shall be minimized. Attempt to access ymin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
47	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access rows outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
150	D4.1	Run-time failures shall be minimized. Attempt to access rows outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
48	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access rows outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
151	D4.1	Run-time failures shall be minimized. Attempt to access rows outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
49	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access ymin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
152	D4.1	Run-time failures shall be minimized. Attempt to access ymin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
153	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
154	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1116 to line 1118.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
155	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
156	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1122 to line 1124.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
42	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umax_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
157	D4.1	Run-time failures shall be minimized. Attempt to access umax_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
43	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umax_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
158	D4.1	Run-time failures shall be minimized. Attempt to access umax_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
44	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umax_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646].	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
159	D4.1	Run-time failures shall be minimized. Attempt to access umax_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
45	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umax_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
160	D4.1	Run-time failures shall be minimized. Attempt to access umax_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
161	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
162	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1151 to line 1153.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
163	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
164	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1157 to line 1159.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
165	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
166	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 1163 to line 1165.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
38	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
167	D4.1	Run-time failures shall be minimized. Attempt to access umin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
39	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umin_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
168	D4.1	Run-time failures shall be minimized. Attempt to access umin_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
40	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umin_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646].	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
169	D4.1	Run-time failures shall be minimized. Attempt to access umin_incr outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
41	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access umin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
170	D4.1	Run-time failures shall be minimized. Attempt to access umin_incr_flag outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCControlle_mpcblock_optimizer()	Unset	Unreviewed	
171	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
172	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 4373 to line 4377.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
7	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
173	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
174	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 4955 to line 4957.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
175	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
176	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 4961 to line 4963.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
177	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
178	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5106 to line 5122.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
179	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
180	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5123 to line 5125.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
181	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
182	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5129 to line 5131.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
35	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access old_yoff outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-116 .. 119]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
183	D4.1	Run-time failures shall be minimized. Attempt to access old_yoff outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
36	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Y outside its bounds.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Additional Info: Expected values: [0 .. 3]. Actual values: [-116 .. 119]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
184	D4.1	Run-time failures shall be minimized. Attempt to access Y outside its bounds. Additional Info: Expected values: [0 .. 3]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
185	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
186	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5145 to line 5147.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
187	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
188	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5151 to line 5153.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
33	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access old_mvoff outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-4 .. 5]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
189	D4.1	Run-time failures shall be minimized. Attempt to access old_mvoff outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
34	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access gb outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-4 .. 5]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
190	D4.1	Run-time failures shall be minimized. Attempt to access gb outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
191	14.3	Controlling expressions shall not be invariant. If condition is always true.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
192	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
193	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5167 to line 5169.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
194	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
195	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5173 to line 5175.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
196	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
197	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5179 to line 5181.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
31	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access old_mvoff outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-4 .. 5]. Risk: Value read is invalid or program can hang or segfault.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
198	D4.1	Run-time failures shall be minimized. Attempt to access old_mvoff outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
32	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access gb outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-4 .. 5]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
199	D4.1	Run-time failures shall be minimized. Attempt to access gb outside its bounds. Additional Info: Expected values: [0 .. 1]. Actual values: [-2^31 .. 2147483646]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
200	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
201	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5206 to line 5208.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
202	D4.1	Run-time failures shall be minimized. Operation - (binary) overflows. Additional Info: Expected values: Based on operand types, operation result must be in [-2^31 .. 2^31-1] to fit type int 32. Actual values: Left operand is -2^31 and right is [1 .. 2]. Risk: Overflow can result in unexpected values. Fix: Handle large values of operands before the operation or use larger types for operands.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
203	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
204	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5210 to line 5212.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
205	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
206	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5223 to line 5225.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
207	D4.1	Run-time failures shall be minimized. Operation - (binary) overflows. Additional Info: Expected values: Based on operand types, operation result must be in [-2^31 .. 2^31-1] to fit type int 32. Actual values: Left operand is -2^31 and right is [1 .. 2]. Risk: Overflow can result in unexpected values. Fix: Handle large values of operands before the operation or use larger types for operands.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
208	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
209	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5227 to line 5229.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
210	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
211	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5259 to line 5261.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
212	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
213	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5261 to line 5263.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
214	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
215	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5267 to line 5269.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
216	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
217	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5281 to line 5283.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
218	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
219	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5283 to line 5285.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
220	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
221	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5289 to line 5291.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
222	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
223	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5296 to line 5298.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
224	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
225	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5298 to line 5300.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
226	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
227	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5304 to line 5306.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
228	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
229	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5311 to line 5313.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
230	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
231	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5313 to line 5315.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
232	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
233	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5319 to line 5321.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
234	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
235	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5326 to line 5328.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
236	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
237	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5328 to line 5330.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
238	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
239	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5334 to line 5336.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
240	14.3	Controlling expressions shall not be invariant. If condition is always false.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
241	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 5358 to line 5360.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
242	D4.1	Run-time failures shall be minimized. Operation - (binary) overflows. Additional Info: Expected values: Based on operand types, operation result must be in [-2^31 .. 2^31-1] to fit type int 32. Actual values: Left operand is -2^31 and right is [1 .. 2]. Risk: Overflow can result in unexpected values. Fix: Handle large values of operands before the operation or use larger types for operands.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
37	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Attempt to access vseq outside its bounds. Additional Info: Expected values: [0 .. 92]. Actual values: [0 .. 91]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
243	D4.1	Run-time failures shall be minimized. Attempt to access vseq outside its bounds. Additional Info: Expected values: [0 .. 92]. Actual values: [-2^31 .. 2^31-1]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
244	2.2	There shall be no dead code. Variable 'rtb_cost' is never read after this point.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
245	2.2	There shall be no dead code. Variable 'rtb_y_dbpi' is never read after this point.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	
246	2.2	There shall be no dead code. Variable 'rtb_y_dbpi' is never read after this point.	MPCC_PathFollowingControlSystem()	Unset	Unreviewed	

Table 1.2. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\DropConstraint_qA3GI0eX_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
247	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to dereference a null pointer. Additional Info: Risk: Program can hang or segfault. Fix: Check for previous assignment to NULL that is not overwritten.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
252	D4.1	Run-time failures shall be minimized. Attempt to dereference a null pointer. Additional Info: Risk: Program can hang or segfault. Fix: Check for previous assignment to NULL that is not overwritten.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
61	14.3	Controlling expressions shall not be invariant. If condition is always false.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
62	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 28 to line 30.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
63	14.3	Controlling expressions shall not be invariant. If condition is always false.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
64	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 30 to line 32.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
65	14.3	Controlling expressions shall not be invariant. If condition is always false.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
66	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 38 to line 40.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
67	14.3	Controlling expressions shall not be invariant. If condition is always false.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
68	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 40 to line 42.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
71	14.3	Controlling expressions shall not be invariant. If condition is always false.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	
72	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 52 to line 54.	DropConstraint_qA3GI0eX_ASILD()	Unset	Unreviewed	

Table 1.3. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\KWIKfactor_a8xdMRpH_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
82	14.3	Controlling expressions shall not be invariant. If condition is always false.	KWIKfactor_a8xdMRpH_ASILD()	Unset	Unreviewed	
83	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 116 to line 118.	KWIKfactor_a8xdMRpH_ASILD()	Unset	Unreviewed	
84	14.3	Controlling expressions shall not be invariant. If condition is always false.	KWIKfactor_a8xdMRpH_ASILD()	Unset	Unreviewed	
85	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 118 to line 120.	KWIKfactor_a8xdMRpH_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
86	14.3	Controlling expressions shall not be invariant. If condition is always false.	KWIKfactor_a8xdMRpH_ASILD( )	Unset	Unreviewed	
87	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 143 to line 145.	KWIKfactor_a8xdMRpH_ASILD( )	Unset	Unreviewed	
88	14.3	Controlling expressions shall not be invariant. If condition is always false.	KWIKfactor_a8xdMRpH_ASILD( )	Unset	Unreviewed	
89	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 145 to line 147.	KWIKfactor_a8xdMRpH_ASILD( )	Unset	Unreviewed	

Table 1.4. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\PadeApproximantO_IadiOITd_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
4	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	PadeApproximantO_IadiOITd_ASILD()	Unset	Unreviewed	
3	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	PadeApproximantO_IadiOITd_ASILD()	Unset	Unreviewed	
5	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	PadeApproximantO_IadiOITd_ASILD()	Unset	Unreviewed	
6	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	PadeApproximantO_IadiOITd_ASILD()	Unset	Unreviewed	

Table 1.5. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\WtMult_ACl0eGFr_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
69	14.3	Controlling expressions shall not be invariant. If condition is always false.	WtMult_ACl0eGFr_ASILD()	Unset	Unreviewed	
70	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 43 to line 45.	WtMult_ACl0eGFr_ASILD()	Unset	Unreviewed	
80	14.3	Controlling expressions shall not be invariant. If condition is always false.	WtMult_ACl0eGFr_ASILD()	Unset	Unreviewed	
81	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 69 to line 71.	WtMult_ACl0eGFr_ASILD()	Unset	Unreviewed	

Table 1.6. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\expmNoLog2_AFCPMfdM_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
8	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	expmNoLog2_AFCPMfdM_ASILD()	Unset	Unreviewed	

Table 1.7. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mldivide_M9TTPEHi_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
76	14.3	Controlling expressions shall not be invariant. If condition is always false.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	
77	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 59 to line 61.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	
79	14.3	Controlling expressions shall not be invariant. If condition is always true.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	
10	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	
11	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	
9	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	
12	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mldivide_M9TTPEHi_ASILD()	Unset	Unreviewed	

Table 1.8. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mpc_checkhessian_NqOOf1W5_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
13	14.1	A loop counter shall not have essentially floating type. The loop-counter 'normH' shall not have floating type.	mpc_checkhessian_NqOOf1W5_ASILD()	Unset	Unreviewed	

Table 1.9. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\mrdiv_sf9dmdVE_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
73	14.3	Controlling expressions shall not be invariant. If condition is always false.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
74	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 54 to line 56.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	
75	14.3	Controlling expressions shall not be invariant. If condition is always true.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	
17	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	
14	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	
16	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	
15	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	mrdiv_sf9dmdVE_ASILD()	Unset	Unreviewed	

Table 1.10. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\qpkwik_zOiTiUrm_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
90	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
91	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 157 to line 159.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
50	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [-32769 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
92	D4.1	Run-time failures shall be minimized. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [-32769 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
93	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
94	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 186 to line 188.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
95	14.3	Controlling expressions shall not be invariant. If condition is always true.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
96	2.1	A project shall not contain unreachable code. The else branch is unreachable.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
97	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
98	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 215 to line 217.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
99	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
100	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 244 to line 246.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
51	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Rhs outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
101	D4.1	Run-time failures shall be minimized. Attempt to access Rhs outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
102	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
103	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 282 to line 284.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
52	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Rhs outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
104	D4.1	Run-time failures shall be minimized. Attempt to access Rhs outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
105	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
106	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 306 to line 308.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
53	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
107	D4.1	Run-time failures shall be minimized. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
108	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
109	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 317 to line 319.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
110	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
111	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 326 to line 328.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
112	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
113	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 335 to line 337.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
56	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
114	D4.1	Run-time failures shall be minimized. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
54	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
115	D4.1	Run-time failures shall be minimized. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
55	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Rhs outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
116	D4.1	Run-time failures shall be minimized. Attempt to access Rhs outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
117	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
118	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 353 to line 355.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
57	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
119	D4.1	Run-time failures shall be minimized. Attempt to access Opt outside its bounds. Additional Info:	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
120	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
121	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 364 to line 366.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
58	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
122	D4.1	Run-time failures shall be minimized. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
123	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
124	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 376 to line 378.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
59	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
125	D4.1	Run-time failures shall be minimized. Attempt to access Opt outside its bounds. Additional Info: Expected values: [0 .. 13]. Actual values: [-32769 .. -32764] , [7 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
248	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [0 .. 32765]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
253	D4.1	Run-time failures shall be minimized. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [0 .. 32765]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
19	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
18	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
20	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
126	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
127	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 631 to line 633.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
128	D4.1	Run-time failures shall be minimized. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [-32769 .. 6] , [8 .. 32766].	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
		Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.				
249	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [-32769 .. 6] , [8 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
129	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
130	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 644 to line 646.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
131	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
132	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 646 to line 648.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
250	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [1 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
254	D4.1	Run-time failures shall be minimized. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [1 .. 32766]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
133	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

ID	Guideline	Message	Function	Severity	Status	Comment
134	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 657 to line 659.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
135	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
136	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 659 to line 661.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
137	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
138	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 667 to line 669.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
139	14.3	Controlling expressions shall not be invariant. If condition is always false.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
140	2.1	A project shall not contain unreachable code. If-condition always evaluates to false. Dead branch from line 669 to line 671.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
251	18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [0 .. 32765]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	
255	D4.1	Run-time failures shall be minimized. Attempt to access iC outside its bounds. Additional Info: Expected values: [0 .. 41]. Actual values: [0 .. 32765]. Risk: Value read is invalid or program can hang or segfault. Fix: Check for possible programming error earlier, for instance, an incorrect loop bound.	qpkwik_zOiTiUrm_ASILD()	Unset	Unreviewed	

Table 1.11. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\qr_8vc6RuhJ_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
78	14.3	Controlling expressions shall not be invariant. If condition is always true.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
21	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
24	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
27	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
26	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
25	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
23	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	
22	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	qr_8vc6RuhJ_ASILD()	Unset	Unreviewed	

Table 1.12. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\rtwtypes.h

ID	Guideline	Message	Function	Severity	Status	Comment
1	21.1	#define and #undef shall not be used on a reserved identifier or reserved macro name. The macro 'false' shall not be redefined.	File Scope	Unset	Unreviewed	
2	21.1	#define and #undef shall not be used on a reserved identifier or reserved macro name. The macro 'true' shall not be redefined.	File Scope	Unset	Unreviewed	

Table 1.13. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\trisolve_bbtHhwaz_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
28	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	trisolve_bbtHhwaz_ASILD()	Unset	Unreviewed	

Table 1.14. C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils\xgerc_CjD4Pmj0_ASILD.c

ID	Guideline	Message	Function	Severity	Status	Comment
29	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	xgerc_CjD4Pmj0_ASILD()	Unset	Unreviewed	
30	D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	xgerc_CjD4Pmj0_ASILD()	Unset	Unreviewed	

Chapter 2. Appendix 1 - Configuration Settings

Polyspace Settings

Option	Value
-author	MathWorks
-boolean-types	boolean_T
-bug-finder	true
-checkers	
-checkers-selection-file	C:\Users\mabualqu\hlf2\tools_iso26262\checks\MISRA_C_2012_ACG.xml
-compiler	generic
-D	main=main_rtwec,__restrict__=
-data-range-specifications	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\MPCController\cStdChks\MPCController\generated_drs.xml
-date	22/09/2021
-disable-checkers	all
-dos	true
-functions-called-before-loop	MPCController_initialize
-functions-called-in-loop	custom=MPCController
-functions-to-stub	rtIsNaN,rtIsInf,rtIsNaNF,rtIsInfF
-generate-results-for	all-headers
-I	C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl,C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert\MPCController,D:\jobarchive\Bqualkits\2021_09_20_h23m42s40_job1772907_pass\matlab\extern\include,D:\jobarchive\Bqualkits\2021_09_20_h23m42s40_job1772907_pass\matlab\simulink\include,D:\jobarchive\Bqualkits\2021_09_20_h23m42s40_job1772907_pass\matlab\rtw\c\src,D:\jobarchive\Bqualkits\2021_09_20_h23m42s40_job1772907_pass\matlab\rtw\c\src\ext_mode\common,D:\jobarchive\Bqualkits\2021_09_20_h23m42s40_job1772907_pass\matlab\rtw\c\ert,C:\Users\mabualqu\hlf2\ISO_06_08_SwU\WPs\ISO_6_8_5_2_Impl\slprj\ert_sharedutils
-import-comments	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\MPCController\cStdChks\MPCController
-lang	C-CPP
-main-generator	true
-mbd	true
-misra3	from-file

Option	Value
-misra3-agc-mode	true
-prog	PolyspaceProject
-results-dir	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\MPCController\cStdChks\MPCController
-stub-embedded-coder-lookup-table-functions	true
-target	x86_64
-variables-written-before-loop	none
-variables-written-in-loop	none
-verif-version	1.0

Coding Standard Configuration

Table 2.1. MISRA C:2012 Guidelines Configuration

Guideline	Description	Mode	Comment	Enabled
D1.1	Any implementation-defined behaviour on which the output of the program depends shall be documented and understood.	required	-	yes
D2.1	All source files shall compile without any compilation errors.	required	-	yes
D3.1	All code shall be traceable to documented requirements.	required	Not enforceable	no
D4.1	Run-time failures shall be minimized.	required	-	yes
D4.2	All usage of assembly language should be documented.	advisory	Not enforceable	no
D4.3	Assembly language shall be encapsulated and isolated.	required	-	yes
D4.4	Sections of code should not be "commented out".	advisory	# Not enforceable	no
D4.5	Identifiers in the same name space with overlapping visibility should be typographically unambiguous.	readability	-	no
D4.6	typedefs that indicate size and signedness should be used in place of the basic numerical types.	advisory	-	no
D4.7	If a function returns error information, then that error information shall be tested.	required	-	yes
D4.8	If a pointer to a structure or union is never dereferenced within a translation unit, then the implementation of the object should be hidden.	advisory	-	no
D4.9	A function should be used in preference to a function-like macro where they are interchangeable.	advisory	-	no
D4.10	Precautions shall be taken in order to prevent the contents of a header file being included more than once.	required	-	yes

Guideline	Description	Mode	Comment	Enabled
D4.11	The validity of values passed to library functions shall be checked.	required	-	yes
D4.12	Dynamic memory allocation shall not be used.	required	# Not enforceable	no
D4.13	Functions which are designed to provide operations on a resource should be called in an appropriate sequence.	advisory	-	no
D4.14	The validity of values received from external sources shall be checked.	required	-	yes
1.1	The program shall contain no violations of the standard C syntax and constraints, and shall not exceed the implementation's translation limits.	required	-	yes
1.2	Language extensions should not be used.	advisory	-	no
1.3	There shall be no occurrence of undefined or critical unspecified behaviour.	required	-	yes
1.4	Emergent language features shall not be used.	required	-	no
2.1	A project shall not contain unreachable code.	required	-	yes
2.2	There shall be no dead code.	required	-	yes
2.3	A project should not contain unused type declarations.	readability	-	no
2.4	A project should not contain unused tag declarations.	readability	-	no
2.5	A project should not contain unused macro declarations.	readability	-	no
2.6	A function should not contain unused label declarations.	readability	-	no
2.7	There should be no unused parameters in functions.	readability	-	yes
3.1	The character sequences /* and // shall not be used within a comment.	required	-	yes
3.2	Line-splicing shall not be used in // comments.	required	-	yes
4.1	Octal and hexadecimal escape sequences shall be terminated.	required	-	yes
4.2	Trigraphs should not be used.	advisory	-	no
5.1	External identifiers shall be distinct.	required	-	yes
5.2	Identifiers declared in the same scope and name space shall be distinct.	required	-	yes
5.3	An identifier declared in an inner scope shall not hide an identifier declared in an outer scope.	advisory	-	no
5.4	Macro identifiers shall be distinct.	required	-	yes
5.5	Identifiers shall be distinct from macro names.	required	-	yes
5.6	A typedef name shall be a unique identifier.	required	-	yes
5.7	A tag name shall be a unique identifier.	required	-	yes
5.8	Identifiers that define objects or functions with external linkage shall be unique.	required	-	yes
5.9	Identifiers that define objects or functions with internal linkage should be unique.	readability	-	no
6.1	Bit-fields shall only be declared with an appropriate type.	required	-	yes

Guideline	Description	Mode	Comment	Enabled
6.2	Single-bit named bit fields shall not be of a signed type.	required	-	yes
7.1	Octal constants shall not be used.	advisory	-	no
7.2	A "u" or "U" suffix shall be applied to all integer constants that are represented in an unsigned type.	readability	-	no
7.3	The lowercase character "l" shall not be used in a literal suffix.	readability	-	no
7.4	A string literal shall not be assigned to an object unless the object's type is "pointer to const-qualified char".	required	-	yes
8.1	Types shall be explicitly specified.	required	#on for C90	no
8.2	Function types shall be in prototype form with named parameters.	required	-	yes
8.3	All declarations of an object or function shall use the same names and type qualifiers.	required	-	yes
8.4	A compatible declaration shall be visible when an object or function with external linkage is defined.	advisory	-	no
8.5	An external object or function shall be declared once in one and only one file.	advisory	-	no
8.6	An identifier with external linkage shall have exactly one external definition.	required	-	yes
8.7	Functions and objects should not be defined with external linkage if they are referenced in only one translation unit.	advisory	-	no
8.8	The static storage class specifier shall be used in all declarations of objects and functions that have internal linkage.	required	-	yes
8.9	An object should be defined at block scope if its identifier only appears in a single function.	advisory	-	no
8.10	An inline function shall be declared with the static storage class.	required	-	yes
8.11	When an array with external linkage is declared, its size should be explicitly specified.	advisory	-	no
8.12	Within an enumerator list, the value of an implicitly-specified enumeration constant shall be unique.	required	-	yes
8.13	A pointer should point to a const-qualified type whenever possible.	advisory	-	no
8.14	The restrict type qualifier shall not be used.	advisory	-	no
9.1	The value of an object with automatic storage duration shall not be read before it has been set.	mandatory	-	yes
9.2	The initializer for an aggregate or union shall be enclosed in braces.	readability	-	no
9.3	Arrays shall not be partially initialized.	readability	-	no
9.4	An element of an object shall not be initialized more than once.	required	-	yes
9.5	Where designated initializers are used to initialize an array object the size of the array shall be specified explicitly.	readability	-	no
10.1	Operands shall not be of an inappropriate essential type.	advisory	-	no
10.2	Expressions of essentially character type shall not be used inappropriately in addition and subtraction operations.	advisory	-	no

Guideline	Description	Mode	Comment	Enabled
10.3	The value of an expression shall not be assigned to an object with a narrower essential type or of a different essential type category.	advisory	-	no
10.4	Both operands of an operator in which the usual arithmetic conversions are performed shall have the same essential type category.	advisory	-	no
10.5	The value of an expression should not be cast to an inappropriate essential type.	advisory	-	no
10.6	The value of a composite expression shall not be assigned to an object with wider essential type.	advisory	-	no
10.7	If a composite expression is used as one operand of an operator in which the usual arithmetic conversions are performed then the other operand shall not have wider essential type.	advisory	-	no
10.8	The value of a composite expression shall not be cast to a different essential type category or a wider essential type.	advisory	-	no
11.1	Conversions shall not be performed between a pointer to a function and any other type.	required	-	yes
11.2	Conversions shall not be performed between a pointer to an incomplete type and any other type.	required	-	yes
11.3	A cast shall not be performed between a pointer to object type and a pointer to a different object type.	required	-	yes
11.4	A conversion should not be performed between a pointer to object and an integer type.	advisory	-	no
11.5	A conversion should not be performed from pointer to void into pointer to object.	advisory	-	no
11.6	A cast shall not be performed between pointer to void and an arithmetic type.	required	-	yes
11.7	A cast shall not be performed between pointer to object and a non-integer arithmetic type.	required	-	yes
11.8	A cast shall not remove any const or volatile qualification from the type pointed to by a pointer.	required	-	yes
11.9	The macro NULL shall be the only permitted form of integer null pointer constant.	readability	-	no
12.1	The precedence of operators within expressions should be made explicit.	advisory	-	no
12.2	The right hand operand of a shift operator shall lie in the range zero to one less than the width in bits of the essential type of the left hand operand.	required	-	yes
12.3	The comma operator should not be used	advisory	-	no
12.4	Evaluation of constant expressions should not lead to unsigned integer wrap-around.	advisory	-	no
12.5	The sizeof operator shall not have an operand which is a function parameter declared as "array of type".	mandatory	-	yes
13.1	Initializer lists shall not contain persistent side effects.	required	-	yes
13.2	The value of an expression and its persistent side effects shall be the same under all permitted evaluation orders.	required	-	yes
13.3	A full expression containing an increment (++) or decrement (--) operator should have no other potential side effects other than that caused by the increment or decrement operator.	readability	-	no
13.4	The result of an assignment operator should not be used.	advisory	-	no
13.5	The right hand operand of a logical && or || operator shall not contain persistent side effects.	required	-	yes

Guideline	Description	Mode	Comment	Enabled
13.6	The operand of the sizeof operator shall not contain any expression which has potential side effects.	mandatory	-	yes
14.1	A loop counter shall not have essentially floating type.	advisory	-	yes
14.2	A for loop shall be well-formed.	readability	-	yes
14.3	Controlling expressions shall not be invariant.	required	-	yes
14.4	The controlling expression of an if statement and the controlling expression of an iteration-statement shall have essentially Boolean type.	advisory	-	no
15.1	The goto statement should not be used.	advisory	-	no
15.2	The goto statement shall jump to a label declared later in the same function.	advisory	-	no
15.3	Any label referenced by a goto statement shall be declared in the same block, or in any block enclosing the goto statement.	advisory	-	no
15.4	There should be no more than one break or goto statement used to terminate any iteration statement.	advisory	-	no
15.5	A function should have a single point of exit at the end.	advisory	-	no
15.6	The body of an iteration-statement or a selection-statement shall be a compound-statement.	required	-	yes
15.7	All if ... else if constructs shall be terminated with an else statement.	readability	-	no
16.1	All switch statements shall be well-formed.	advisory	-	no
16.2	A switch label shall only be used when the most closely-enclosing compound statement is the body of a switch statement.	advisory	-	no
16.3	An unconditional break statement shall terminate every switch-clause.	advisory	-	no
16.4	Every switch statement shall have a default label.	advisory	-	no
16.5	A default label shall appear as either the first or the last switch label of a switch statement.	advisory	-	no
16.6	Every switch statement shall have at least two switch-clauses.	advisory	-	no
16.7	A switch-expression shall not have essentially Boolean type.	advisory	-	no
17.1	The features of <stdarg.h> shall not be used.	required	-	yes
17.2	Functions shall not call themselves, either directly or indirectly.	required	-	yes
17.3	A function shall not be declared implicitly.	mandatory	#on for C90	no
17.4	All exit paths from a function with non-void return type shall have an explicit return statement with an expression.	mandatory	-	yes
17.5	The function argument corresponding to a parameter declared to have an array type shall have an appropriate number of elements.	readability	-	no
17.6	The declaration of an array parameter shall not contain the static keyword between the [ ].	mandatory	-	yes
17.7	The value returned by a function having non-void return type shall be used.	readability	-	no
17.8	A function parameter should not be modified.	readability	-	no

Guideline	Description	Mode	Comment	Enabled
18.1	A pointer resulting from arithmetic on a pointer operand shall address an element of the same array as that pointer operand.	required	-	yes
18.2	Subtraction between pointers shall only be applied to pointers that address elements of the same array.	required	-	yes
18.3	The relational operators >, >=, < and <= shall not be applied to objects of pointer type except where they point into the same object.	required	-	yes
18.4	The +, -, += and -= operators should not be applied to an expression of pointer type.	advisory	-	no
18.5	Declarations should contain no more than two levels of pointer nesting.	readability	-	no
18.6	The address of an object with automatic storage shall not be copied to another object that persists after the first object has ceased to exist.	required	-	yes
18.7	Flexible array members shall not be declared.	required	-	yes
18.8	Variable-length array types shall not be used.	required	-	yes
19.1	An object shall not be assigned or copied to an overlapping object.	mandatory	-	yes
19.2	The union keyword should not be used.	advisory	-	no
20.1	#include directives should only be preceded by preprocessor directives or comments.	advisory	-	no
20.2	The ', " or \ characters and the /* or // character sequences shall not occur in a header file name.	required	-	yes
20.3	The #include directive shall be followed by either a <filename> or "filename"sequence.	required	-	yes
20.4	A macro shall not be defined with the same name as a keyword.	required	-	yes
20.5	#undef should not be used.	readability	-	no
20.6	Tokens that look like a preprocessing directive shall not occur within a macro argument.	required	-	yes
20.7	Expressions resulting from the expansion of macro parameters shall be enclosed in parentheses.	required	-	yes
20.8	The controlling expression of a #if or #elif preprocessing directive shall evaluate to 0 or 1.	advisory	-	no
20.9	All identifiers used in the controlling expression of #if or #elif preprocessing directives shall be #define'd before evaluation.	required	-	yes
20.10	The # and ## preprocessor operators should not be used.	advisory	-	no
20.11	A macro parameter immediately following a # operator shall not immediately be followed by a ## operator.	required	-	yes
20.12	A macro parameter used as an operand to the # or ## operators, which is itself subject to further macro replacement, shall only be used as an operand to these operators.	required	-	yes
20.13	A line whose first token is # shall be a valid preprocessing directive.	required	-	yes
20.14	All #else, #elif and #endif preprocessor directives shall reside in the same file as the #if, #ifdef or #ifndef directive to which they are related.	required	-	yes
21.1	#define and #undef shall not be used on a reserved identifier or reserved macro name.	required	-	yes

Guideline	Description	Mode	Comment	Enabled
21.2	A reserved identifier or reserved macro name shall not be declared.	required	-	yes
21.3	The memory allocation and deallocation functions of <stdlib.h> shall not be used.	required	-	yes
21.4	The standard header file <setjmp.h> shall not be used.	required	-	yes
21.5	The standard header file <signal.h> shall not be used.	required	-	yes
21.6	The Standard Library input/output functions shall not be used.	required	-	yes
21.7	The Standard Library functions atof, atoi, atol and atoll of <stdlib.h> shall not be used.	required	-	yes
21.8	The Standard Library termination functions of <stdlib.h> shall not be used.	required	-	yes
21.9	The Standard Library functions bsearch and qsort of <stdlib.h> shall not be used.	required	-	yes
21.10	The Standard Library time and date functions shall not be used.	required	-	yes
21.11	The standard header file <tgmath.h> shall not be used.	required	-	yes
21.12	The exception handling features of <fenv.h> should not be used.	advisory	-	no
21.13	Any value passed to a function in <ctype.h> shall be representable as an unsigned char or be the value EOF.	mandatory	-	yes
21.14	The Standard Library function memcmp shall not be used to compare null terminated strings.	required	-	yes
21.15	The pointer arguments to the Standard Library functions memcpy, memmove and memcmp shall be pointers to qualified or unqualified versions of compatible types.	required	-	yes
21.16	The pointer arguments to the Standard Library function memcmp shall point to either a pointer type, an essentially signed type, an essentially unsigned type, an essentially Boolean type or an essentially enum type.	required	-	yes
21.17	Use of the string handling functions from <string.h> shall not result in accesses beyond the bounds of the objects referenced by their pointer parameters.	mandatory	-	yes
21.18	The size_t argument passed to any function in <string.h> shall have an appropriate value.	mandatory	-	yes
21.19	The pointers returned by the Standard Library functions localeconv, getenv, setlocale or, strerror shall only be used as if they have pointer to const-qualified type.	mandatory	-	yes
21.20	The pointer returned by the Standard Library functions asctime, ctime, gmtime, localtime, localeconv, getenv, setlocale or strerror shall not be used following a subsequent call to the same function.	mandatory	-	yes
21.21	The Standard Library function system of <stdlib.h> shall not be used.	required	-	no
22.1	All resources obtained dynamically by means of Standard Library functions shall be explicitly released.	required	-	yes
22.2	A block of memory shall only be freed if it was allocated by means of a Standard Library function.	mandatory	-	yes
22.3	The same file shall not be open for read and write access at the same time on different streams.	required	-	yes
22.4	There shall be no attempt to write to a stream which has been opened as read-only.	mandatory	-	yes
22.5	A pointer to a FILE object shall not be dereferenced.	mandatory	-	yes

Guideline	Description	Mode	Comment	Enabled
22.6	The value of a pointer to a FILE shall not be used after the associated stream has been closed.	mandatory	-	yes
22.7	The macro EOF shall only be compared with the unmodified return value from any Standard Library function capable of returning EOF.	required	-	yes
22.8	The value of errno shall be set to zero prior to a call to an errno-setting-function.	required	-	yes
22.9	The value of errno shall be tested against zero after calling an errno-setting-function.	required	-	yes
22.10	The value of errno shall only be tested when the last function to be called was an errno-setting-function.	required	-	yes

Specified Constraints

Constraints - User Functions

Table 2.2. File: C:\ Users\ mabualqu\ hlf2\ ISO_06_08_SwU\ WPs\ ISO_6_8_5_2_Impl\ slprj\ ert\ MPCController\ MPCController.c

Name	Type	Main Generator Called	Init Mode	Init Range	Initialize Pointer	# Allocated Objects	Init Allocated	Global Assert	Assert Range	Comment
MPCController.* arg1	const float64		INIT	-1.797693134862316e+308..1.797693134862316e+308				unsupported	unsupported	
MPCController.* arg10 (Non Applicable)			INIT	min..max				unsupported	unsupported	
MPCController.* arg2	const float64		INIT	-1.797693134862316e+308..1.797693134862316e+308				unsupported	unsupported	
MPCController.* arg3	const float64		INIT	-1.797693134862316e+308..1.797693134862316e+308				unsupported	unsupported	
MPCController.* arg4	const float64		INIT	-1.797693134862316e+308..1.797693134862316e+308				unsupported	unsupported	
MPCController.* arg5	const float64		INIT	-1.797693134862316e+308..1.				unsupported	unsupported	

Name	Type	Main Generator Called	Init Mode	Init Range	Initialize Pointer	# Allocated Objects	Init Allocated	Global Assert	Assert Range	Comment
				797693134862316e+308						
MPCController.* arg6	const float64		INIT	-1.797693134862316e+308..1.797693134862316e+308				unsupported	unsupported	
MPCController.* arg7	const float64		INIT	-1.797693134862316e+308..1.797693134862316e+308				unsupported	unsupported	
MPCController.* arg8	float64		INIT	min..max				unsupported	unsupported	
MPCController.* arg9	float64		INIT	min..max				unsupported	unsupported	
MPCController.arg1	float64 const *		INIT		Not NULL	MULTI	1			
MPCController.arg10	struct *		INIT		Not NULL	MULTI	1			
MPCController.arg2	float64 const *		INIT		Not NULL	MULTI	1			
MPCController.arg3	float64 const *		INIT		Not NULL	MULTI	31			
MPCController.arg4	float64 const *		INIT		Not NULL	MULTI	1			
MPCController.arg5	float64 const *		INIT		Not NULL	MULTI	1			
MPCController.arg6	float64 const *		INIT		Not NULL	MULTI	1			
MPCController.arg7	float64 const *		INIT		Not NULL	MULTI	1			
MPCController.arg8	float64 *		INIT		Not NULL	MULTI	1			
MPCController.arg9	float64 *		INIT		Not NULL	MULTI	1			

Constraints - Standard Functions

Table 2.3. File: D:\ jobarchive\ Bqualkits\ 2021_09_20_h23m42s40_job1772907_pass\ matlab\ polyspace\ verifier\ cxx\ include\ include-libc\ string.h

Name	Type	Main Generator Called	Init Mode	Init Range	Initialize Pointer	# Allocated Objects	Init Allocated	Global Assert	Assert Range	Comment
memcpy.arg1	void *		disabled		disabled	MULTI_CERTAIN_WRITE	disabled			
memcpy.arg2	void const *		disabled		disabled	MULTI_CERTAIN_WRITE	disabled			

Name	Type	Main Generator Called	Init Mode	Init Range	Initialize Pointer	# Allocated Objects	Init Allocated	Global Assert	Assert Range	Comment
memcpy.return	void *		PERMANENT		Not NULL	MULTI_CERTAIN_WRITE	max			
memset.arg1	void *		disabled		disabled	MULTI_CERTAIN_WRITE	disabled			
memset.return	void *		PERMANENT		Not NULL	MULTI_CERTAIN_WRITE	max			

Chapter 3. Appendix 2 - Definitions

Table 3.1. Abbreviations

Abbreviation	Definition
NA	Not Available