

# **Polyspace Code Verification**

**Developer Report for Project: polyspace**

**Report Author: murat.atlihan**

# **Polyspace Code Verification: Developer Report for Project: polyspace**

by Report Author: murat.atlihan

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Verification Author(s): murat.atlihan

Polyspace Version(s): Polyspace Code Prover 24.1 (R2024a)

Project Version(s): 1.0

Result Folder(s):

E:\Denemeler\PSTDeneme\pst\_denemeResults\RTE\run\_2025\_08\_06\_101950

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# Table of Contents

- Chapter 1. Polyspace Code Verification Summary ..... 1
  - ..... 1
- Chapter 2. Polyspace Run-Time Checks Statistics ..... 3
  - Run-Time Checks Summary for polyspace - run\_2025\_08\_06\_101950 ..... 3
  - Percentage of code checked for run-time errors ..... 3
- Chapter 3. Polyspace Run-Time Checks Results ..... 4
  - Proven Run-Time Errors ..... 4
  - Proven Unreachable Code Branches ..... 4
  - Unreachable Function Checks ..... 4
  - Unproven Run-Time Errors ..... 4
- Chapter 4. Global Variables ..... 5
  - Variable Checks for: polyspace - run\_2025\_08\_06\_101950 ..... 5
- Chapter 5. Appendix 1 - Configuration Settings ..... 6
  - Polyspace Settings ..... 6
  - Analysis Assumptions ..... 6
- Chapter 6. Appendix 2 - Definitions ..... 8
  - ..... 8

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# Chapter 1. Polyspace Code Verification Summary

**Table 1.1. Code Metrics Summary**

Polyspace Code Metrics	Disabled
Pass/Fail	

**Table 1.2. Coding Standard Summary - Coding Standard Checker**

Coding Standard Checker	Disabled
Pass/Fail	

**Table 1.3. Run-Time Checks Summary**

Run-Time Checks	Enabled
Number of Red Checks	0
Number of Gray Checks	0
Number of Orange Checks	0
Number of Green Checks	7
Proven	100%
Pass/Fail	

**Table 1.4. Global Variable Summary**

Category	Total
Potentially unprotected variable	0
Protected variable	0
Unused variable	0
Used non-shared variable	0

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**Developer Name:**

**Date Reviewed:**

**Comments**

**Approved By:**

**Approved Date:**

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## Chapter 2. Polyspace Run-Time Checks Statistics

### Run-Time Checks Summary for polyspace - run\_2025\_08\_06\_101950

Globally Proven: 100%

File	Proven	Green	Red	Gray	Orange
ps_deneme.c	100%	6	0	0	0
__polyspace_main.c	100%	1	0	0	0
<b>Total</b>	<b>100%</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>

### Percentage of code checked for run-time errors

Result Set	% Checked
polyspace - run_2025_08_06_101950	100%

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# Chapter 3. Polyspace Run-Time Checks Results

## Proven Run-Time Errors

No proven run-time error checks were found.

## Proven Unreachable Code Branches

No unreachable branch checks were found.

## Unreachable Function Checks

Option to check for unreachable functions was not enabled. To enable the checks, use the option `-uncalled-function-checks`.

## Unproven Run-Time Errors

No unproven run-time error checks were found.

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## Chapter 4. Global Variables

### Variable Checks for: polyspace - run\_2025\_08\_06\_101950

No variable checks were found in the code.



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# Chapter 5. Appendix 1 - Configuration Settings

## Polyspace Settings

Option	Value
-author	murat.atlihan
-compiler	generic
-custom-target	true,8,2,4,-1,4,8,4,8,8,8,1,little,unsigned_long_long,long_long,unsigned_short
-date	06/08/2025
-lang	C
-main-generator	true
-O2	-O2
-prog	polyspace
-results-dir	E:\Denemeler\PSTDeneme\pst_denemeResults\RTE\run_2025_08_06_101950
-sources-encoding	system
-target	i386
-to	Software Safety Analysis level 2
-verif-version	1.0

## Analysis Assumptions

Assumption	Issuer
External arrays of unspecified size can be safely accessed at any index	Product
Nonfinite floats (infinities and NaNs) are not considered	Product
Computations involving unsigned integers do not overflow	Product
Results of floating-point arithmetic are rounded following the IEE754 rule: round to nearest, ties to even	Product
Structure fields are not volatile unless the entire structure is volatile-qualified	Product
Stack pointers can be safely dereferenced even outside the pointed variable's scope	Product
External pointers cannot be null. They point to allocated data of sufficient size for safe dereference	Product

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Assumption	Issuer
Absolute addresses can be safely dereferenced	Product

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# Chapter 6. Appendix 2 - Definitions

**Table 6.1. Abbreviations**

Abbreviation	Definition
Col	Column
Jus	Justified
SQO	Software Quality Objectives
NA	Not Available