Test project report Overview

Passed 81%

Tests: 253

Passed: 205

Failed: 24

Blocked: 24

Report created: 2023-01-01 00:00:00.000

Version: v1.0.0

Duration: 0:00:08.220000

Test documents: 4 Test suites: 25

Unit Tests

example/data/example2.xml

example/data/example3.xml

example/data/example4.xml

passed: 42 / 42 passed: 114 / 114

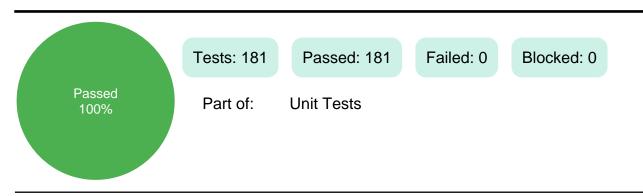
passed: 25 / 25

passed: 24 / 72

Mutation Tests

example/data/example1.xml

Unit Tests



- example/data/example2.xml
- example/data/example3.xml
- example/data/example4.xml

passed: 42 / 42 passed: 114 / 114

passed: 25 / 25

Test suite "MPL"

Blocked: 0

Passed 100%

Part of: Unit Tests File: example/data/example2.xml Timestamp: 2023-06-03 15:34:53.000 Duration: 0:00:00.0000000

- Passed: MPL.AccumulateType
 Passed: MPL.AccumulateValue
- Passed: MPL.Conditional
- Passed: MPL.JoinPassed: MPL.FilterPassed: MPL.FindIf
- Passed: MPL.IsUnique
 Passed: MPL.MinElement
- Passed: MPL.Transform

Test suite "Units"

Passed 100%

Tests: 31

Passed: 31

Failed: 0

Blocked: 0

Part of: Unit Tests

File: example/data/example2.xml Timestamp: 2023-06-03 15:34:53.000

Duration: 0:00:00.001000

- Passed: Units.QuantityConversion
- Passed: Units.ConvertQuantity
- Passed: Units.ConvertSpeeds
- Passed: Units.ScaleQuantityWithScalar
- Passed: Units.InvertQuantity
- Passed: Units.TrigonometricFunctions
- Passed: Units.ConvertImperial
- Passed: Units.AddQuantities
- Passed: Units.SubtractQuantities
- Passed: Units.MultiplySameQuantities
- Passed: Units.MultiplyDifferentQuantities
- Passed: Units.DivideSameQuantities
- Passed: Units.DivideDifferentQuantities
- Passed: Units.Scalar
- Passed: Units.OperationChain
- Passed: Units.DerivedUnits
- Passed: Units.Degree
- Passed: Units.MinMax
- Passed: Units.Abs
- Passed: Units.Clamp
- Passed: Units.Exp
- Passed: Units.Log
- Passed: Units.Comparisions
- Passed: Units.MultiplicationConversion
- Passed: Units.AdditonConversion
- Passed: Units.ChronoIntegration
- Passed: Units.QuantityCast
- Passed: Units.IntegralConversion
- Passed: Units.Pow
- Passed: Units.Sqrt
- Passed: Units.Traits

Test suite "FormatUnits"

Passed 100%

Part of: Unit Tests File: example/data/example2.xml Timestamp: 2023-06-03 15:34:53.000 Duration: 0:00:00.000000

Passed: FormatUnits.CoutPassed: FormatUnits.ToString

Test suite "test-filter"

Passed 100%

Tests: 114

Passed: 114

Failed: 0

Blocked: 0

Part of: Unit Tests

File: example/data/example3.xml Timestamp: 2023-06-08 12:15:14.000Z

Duration: 0:00:00.007000

- Passed: test-filter.global.Scenario: Brickwall lowpass filters can be initialized/Given: The filter parameters for a 10th order brickwall lowpass filter with 100 Hz sampling rate and 25Hz cutoff/When: The filter is created
- Passed: test-filter.global.Scenario: Brickwall lowpass filters can be initialized/Given: The filter parameters for a 10th order brickwall lowpass filter with 100 Hz sampling rate and 25Hz cutoff/When: The filter is created/Then: The status is ok
- Passed: test-filter.global.Scenario: Brickwall lowpass filters can be initialized/Given: The filter parameters for a 10th order brickwall lowpass filter with 100 Hz sampling rate and 25Hz cutoff/When: The filter is created/Then: The coefficients are correct
- Passed: test-filter.global.Scenario: Brickwall highpass filters can be initialized/Given: The filter parameters for a 10th order brickwall highpass filter with 100 Hz sampling rate and 25Hz cutoff/When: The filter is created
- Passed: test-filter.global.Scenario: Brickwall highpass filters can be initialized/Given: The filter parameters for a 10th order brickwall highpass filter with 100 Hz sampling rate and 25Hz cutoff/When: The filter is created/Then: The status is ok
- Passed: test-filter.global.Scenario: Brickwall highpass filters can be initialized/Given: The filter parameters for a 10th order brickwall highpass filter with 100 Hz sampling rate and 25Hz cutoff/When: The filter is created/Then: The coefficients are correct
- Passed: test-filter.global.Scenario: Brickwall bandstop filters can be initialized/Given: The filter parameters for a 10th order bandstop highpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created
- Passed: test-filter.global.Scenario: Brickwall bandstop filters can be initialized/Given: The filter parameters for a 10th order bandstop highpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The status is ok
- Passed: test-filter.global.Scenario: Brickwall bandstop filters can be initialized/Given: The filter parameters for a 10th order bandstop highpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The input array is zeroed
- Passed: test-filter.global.Scenario: Brickwall bandstop filters can be initialized/Given: The filter parameters for a 10th order bandstop highpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The output array is zeroed
- Passed: test-filter.global.Scenario: Brickwall bandstop filters can be initialized/Given: The filter parameters for a 10th order bandstop highpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The coefficients are correct

- Passed: test-filter.global.Scenario: Brickwall bandpass filters can be initialized/Given: The filter parameters for a 10th order brickwall bandpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created
- Passed: test-filter.global.Scenario: Brickwall bandpass filters can be initialized/Given: The filter parameters for a 10th order brickwall bandpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The status is ok
- Passed: test-filter.global.Scenario: Brickwall bandpass filters can be initialized/Given: The filter parameters for a 10th order brickwall bandpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The input array is zeroed
- Passed: test-filter.global.Scenario: Brickwall bandpass filters can be initialized/Given: The filter parameters for a 10th order brickwall bandpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The output array is zeroed
- Passed: test-filter.global.Scenario: Brickwall bandpass filters can be initialized/Given: The filter parameters for a 10th order brickwall bandpass filter with 100 Hz sampling rate and 20Hz-40Hz cutoff/When: The filter is created/Then: The coefficients are correct
- Passed: test-filter.global.Scenario: Butterworth output coefficients can be computed/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 20Hz cutoff/When: the lowpass parameters are computed
- Passed: test-filter.global.Scenario: Butterworth output coefficients can be computed/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 20Hz cutoff/When: the lowpass parameters are computed/Then: status is ok
- Passed: test-filter.global.Scenario: Butterworth output coefficients can be computed/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 20Hz cutoff/When: the lowpass parameters are computed/Then: results are correct
- Passed: test-filter.global.Scenario: Butterworth lowpass filters can be initialized/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 25Hz cutoff/When: lowpass parameters are computed
- Passed: test-filter.global.Scenario: Butterworth lowpass filters can be initialized/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 25Hz cutoff/When: lowpass parameters are computed/Then: status is ok
- Passed: test-filter.global.Scenario: Butterworth lowpass filters can be initialized/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 25Hz cutoff/When: lowpass parameters are computed/Then: coefficients are correct
- Passed: test-filter.global.Scenario: Butterworth highpass filters can be initialized/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 25Hz cutoff/When: highpass parameters are computed
- Passed: test-filter.global.Scenario: Butterworth highpass filters can be initialized/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 25Hz cutoff/When: highpass parameters are computed/Then: status is ok
- Passed: test-filter.global.Scenario: Butterworth highpass filters can be initialized/Given: parameters: fifth order butterworth, 100 Hz sampling rate, 25Hz cutoff/When: highpass parameters are computed/Then: coefficients are correct
- Passed: test-filter.global.Scenario: Butterworth bandstop filters can be initialized/Given: parameters: third order butterworth, 100 Hz sampling rate, 15-30Hz bandstop/When: bandstop parameters are computed

- Passed: test-filter.global.Scenario: Butterworth bandstop filters can be initialized/Given: parameters: third order butterworth, 100 Hz sampling rate, 15-30Hz bandstop/When: bandstop parameters are computed/Then: status is ok
- Passed: test-filter.global.Scenario: Butterworth bandstop filters can be initialized/Given: parameters: third order butterworth, 100 Hz sampling rate, 15-30Hz bandstop/When: bandstop parameters are computed/Then: coefficients are correct
- Passed: test-filter.global.Scenario: Butterworth bandpass filters can be initialized/Given: parameters: third order butterworth, 100 Hz sampling rate, 15-30Hz bandpass/When: bandpass parameters are computed
- Passed: test-filter.global.Scenario: Butterworth bandpass filters can be initialized/Given: parameters: third order butterworth, 100 Hz sampling rate, 15-30Hz bandpass/When: bandpass parameters are computed/Then: status is ok
- Passed: test-filter.global.Scenario: Butterworth bandpass filters can be initialized/Given: parameters: third order butterworth, 100 Hz sampling rate, 15-30Hz bandpass/When: bandpass parameters are computed/Then: results are correct
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: denominator is computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: denominator is computed/Then: results are correct
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed/Then: results are correct
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band pass/When: coefficients are computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band pass/When: coefficients are computed/Then: denomiator is correct
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band pass/When: coefficients are computed/Then: numerator is correct
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band stop/When: coefficients are computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band stop/When: coefficients are computed/Then: denomiator is correct

- Passed: test-filter.global.Scenario: Chebyshev output coefficients can be computed/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band stop/When: coefficients are computed/Then: numerator is correct
- Passed: test-filter.global.Scenario: Chebyshev low pass filters are correctly initialized/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: filter is created
- Passed: test-filter.global.Scenario: Chebyshev low pass filters are correctly initialized/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: filter is created/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev low pass filters are correctly initialized/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: filter is created/Then: buffers are initialized
- Passed: test-filter.global.Scenario: Chebyshev low pass filters are correctly initialized/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: filter is created/Then: feedback coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev low pass filters are correctly initialized/Given: parameters: fourth order chebyshev, 100 Hz sampling rate, 25Hz cutoff, 3 db ripple, lowpass/When: filter is created/Then: feedforward coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev high pass filters are correctly initialized/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed
- Passed: test-filter.global.Scenario: Chebyshev high pass filters are correctly initialized/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev high pass filters are correctly initialized/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed/Then: buffers are initialized
- Passed: test-filter.global.Scenario: Chebyshev high pass filters are correctly initialized/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed/Then: feedback coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev high pass filters are correctly initialized/Given: parameters: fifth order chebyshev, 100 Hz sampling rate, 20Hz cutoff, 2 db ripple, high pass/When: coefficients are computed/Then: feedforward coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev band pass filters are correctly initialized/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band pass/When: coefficients are computed
- Passed: test-filter.global.Scenario: Chebyshev band pass filters are correctly initialized/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band pass/When: coefficients are computed/Then: results are correct
- Passed: test-filter.global.Scenario: Chebyshev band stop filters are correctly initialized/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band stop/When: coefficients are computed

- Passed: test-filter.global.Scenario: Chebyshev band stop filters are correctly initialized/Given: parameters: third order chebyshev, 100 Hz sampling rate, 15, 30Hz cutoff, 3 db ripple, band stop/When: coefficients are computed/Then: results are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute coefficients for a second order chebyshev type2 lowpass at 15 Hz/100Hz with -0.3dB ripple/When: the values are computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute coefficients for a second order chebyshev type2 lowpass at 15 Hz/100Hz with -0.3dB ripple/When: the values are computed/Then: the feedforward coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute coefficients for a second order chebyshev type2 lowpass at 15 Hz/100Hz with -0.3dB ripple/When: the values are computed/Then: the feedback coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute coefficients for a second order chebyshev type2 highpass at 15 Hz/100Hz with -0.3dB ripple/When: the values are computed/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute coefficients for a second order chebyshev type2 highpass at 15 Hz/100Hz with -0.3dB ripple/When: the values are computed/Then: the feedforward coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute coefficients for a second order chebyshev type2 highpass at 15 Hz/100Hz with -0.3dB ripple/When: the values are computed/Then: the feedback coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute a second order bandpass at [30Hz,60Hz] for 200Hz sampling rate with 3db ripple/When: i compute the polynomial/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute a second order bandpass at [30Hz,60Hz] for 200Hz sampling rate with 3db ripple/When: i compute the polynomial/Then: the feedforward coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute a second order bandpass at [30Hz,60Hz] for 200Hz sampling rate with 3db ripple/When: i compute the polynomial/Then: the feedback coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute a second order bandstop at [30Hz,60Hz] for 200Hz sampling rate with 3db ripple/When: i compute the polynomial/Then: the status is ok
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute a second order bandstop at [30Hz,60Hz] for 200Hz sampling rate with 3db ripple/When: i compute the polynomial/Then: the feedforward coefficients are correct
- Passed: test-filter.global.Scenario: Chebyshev type 2 design/Given: I need to compute a second order bandstop at [30Hz,60Hz] for 200Hz sampling rate with 3db ripple/When: i compute the polynomial/Then: the feedback coefficients are correct
- Passed: test-filter.global.Scenario: A moving average filter can be created/Given: An options structure filled with values for moving average filters/When: the create function is called

- Passed: test-filter.global.Scenario: A moving average filter can be created/Given: An
 options structure filled with values for moving average filters/When: the create
 function is called/Then: the buffers are initialized
- Passed: test-filter.global.Scenario: A moving average filter can be created/Given: An
 options structure filled with values for moving average filters/When: the create
 function is called/Then: The filter can be initialized
- Passed: test-filter.global.Scenario: A moving average filter can be created/Given: An options structure filled with values for moving average filters/When: the create function is called/Then: a step function can be filtered
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A moving average filter struct is manually created/When: a step function is filtered/Then: the filter first returns zero
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A
 moving average filter struct is manually created/When: a step function is
 filtered/Then: the filter function is called with a step function the output has a linear
 response
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A
 moving average filter struct is manually created/When: a step function is
 filtered/Then: the filter function is called with a step function the output has a linear
 response
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A
 moving average filter struct is manually created/When: a step function is
 filtered/Then: the filter function is called with a step function the output has a linear
 response
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A
 moving average filter struct is manually created/When: a step function is
 filtered/Then: the filter function is called with a step function the output has a linear
 response
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A
 moving average filter struct is manually created/When: a step function is
 filtered/Then: the filter function reaches a constant state after 4 calls
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A moving average filter struct is manually created/When: a step function is filtered/When: The gain is set to 4.0/Then: the first value in the output coefficients is set to 4.0
- Passed: test-filter.global.Scenario: A moving average filter can be used/Given: A
 moving average filter struct is manually created/When: a step function is
 filtered/When: The gain is set to 4.0/When: a filter cycle is run in the steady
 state/Then: the filter outputs 4 times the input
- Passed: test-filter.global.Scenario: A moving average highpass filter can be used/Given: An options structure filled with values for moving average filters/When: the create function is called
- Passed: test-filter.global.Scenario: A moving average highpass filter can be used/Given: An options structure filled with values for moving average filters/When: the create function is called/Then: the buffers are initialized
- Passed: test-filter.global.Scenario: A moving average highpass filter can be used/Given: An options structure filled with values for moving average filters/When: the create function is called/Then: The filter can be initialized

- Passed: test-filter.global.Scenario: A moving average highpass filter can be used/Given: An options structure filled with values for moving average filters/When: the create function is called/Then: the output slowly drops to zero
- Passed: test-filter.global.Scenario: A moving average highpass filter can be used/Given: An options structure filled with values for moving average filters/When: the create function is called/Then: the output reaches zero
- Passed: test-filter.global.Scenario: An buttwerworth lowpass filter generated on the webpage can be used/Given: Generated code/When: A zero is filtered/Then: Output is 0
- Passed: test-filter.global.Scenario: An buttwerworth lowpass filter generated on the webpage can be used/Given: Generated code/When: A step function is filtered/Then: Output is larger than 0
- Passed: test-filter.global.Scenario: An buttwerworth lowpass filter generated on the webpage can be used/Given: Generated code/When: A step function is filtered/Then: Output is larger than before
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different input parameters/When: an impulse input is filtered/Then: the filter first returns coefficient 0 times inmpulse
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different input parameters/When: an impulse input is filtered/Then: the filter first returns coefficient 1 times last input
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different input parameters/When: an impulse input is filtered/Then: the filter first returns coefficient 2 times first input
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different input parameters/When: an impulse input is filtered/Then: the filter first returns coefficient 3 times first input
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different input parameters/When: an impulse input is filtered/Then: the filter first returns zero
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different output parameters and the last output is set to 1/When: filter is called/Then: the filter returns -(output coefficient 1) times last output
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different output parameters and the last output is set to 1/When: filter is called/Then: the filter return value computed from weighted sum of last two outputs
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different output parameters and the last output is set to 1/When: filter is called/Then: the filter return value computed from weighted sum of last three outputs
- Passed: test-filter.global.Scenario: The coefficients are used in correct order/Given:
 A filter struct is manually created with different output parameters and the last output is set to 1/When: filter is called/Then: the filter return value computed from weighted sum of last three outputs
- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called

- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: the buffers are initialized
- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: The filter can be initialized
- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: an impulse function can be filtered
- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: an impulse function can be filtered
- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: an impulse function can be filtered
- Passed: test-filter.global.Scenario: An FIR exponential lowpass filter can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: an impulse function can be filtered
- Passed: test-filter.global.Scenario: An IIR exponential lowpass filter can be used/Given: An options structure filled with values for IIR exponential lowpass filters/When: the create function is called
- Passed: test-filter.global.Scenario: An IIR exponential lowpass filter can be used/Given: An options structure filled with values for IIR exponential lowpass filters/When: the create function is called/Then: the buffers are initialized
- Passed: test-filter.global.Scenario: An IIR exponential lowpass filter can be used/Given: An options structure filled with values for IIR exponential lowpass filters/When: the create function is called/Then: The filter can be initialized
- Passed: test-filter.global.Scenario: An IIR exponential lowpass filter can be used/Given: An options structure filled with values for IIR exponential lowpass filters/When: the create function is called/Then: a step function can be filtered
- Passed: test-filter.global.Scenario: An IIR exponential lowpass filter can be used/Given: An options structure filled with values for IIR exponential lowpass filters/When: the create function is called/Then: a step function can be filtered
- Passed: test-filter.global.Scenario: S-plane pole coefficients can be computed/Given: An array of size 3/When: the s-plane poles are computed/Then: results are correct
- Passed: test-filter.global.Scenario: S-plane pole coefficients can be computed/Given: An array of size 4/When: the s-plane poles are computed/Then: results are correct
- Passed: test-filter.global.Scenario: Convolution of parameters/Given: Two Arrays of size 3/When: the convolution is computed/Then: the result is correct
- Passed: test-filter.global.Scenario: The cpp bindings can be used/Given: An options structure filled with values for FIR exponential lowpass filters/When: the create function is called/Then: response can be computed
- Passed: test-filter.global.Scenario: The cpp bindings can be used/Given: An options structure filled with values for FIR moving average lowpass filters/When: the create function is called/Then: response can be computed
- Passed: test-filter.global.Scenario: The cpp bindings can be used/Given: An options structure filled with values for FIR moving average highpass filters/When: the create function is called/Then: response can be computed

Test suite "Linux-c++"

Blocked: 0

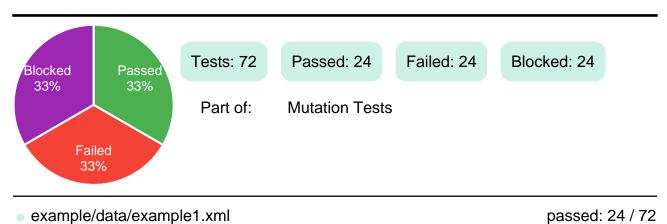
Passed 100%

Part of: Unit Tests example/data/example4.xml Timestamp: 2023-06-08 14:40:14.000 Duration: 0:00:04.000000

- Passed: Scenario: Brickwall lowpass filters can be initialized. Scenario: Brickwall lowpass filters can be initialized
- Passed: Scenario: Brickwall highpass filters can be initialized. Scenario: Brickwall highpass filters can be initialized
- Passed: Scenario: Brickwall bandstop filters can be initialized. Scenario: Brickwall bandstop filters can be initialized
- Passed: Scenario: Brickwall bandpass filters can be initialized. Scenario: Brickwall bandpass filters can be initialized
- Passed: Scenario: Butterworth output coefficients can be computed. Scenario: Butterworth output coefficients can be computed
- Passed: Scenario: Butterworth lowpass filters can be initialized. Scenario: Butterworth lowpass filters can be initialized
- Passed: Scenario: Butterworth highpass filters can be initialized. Scenario: Butterworth highpass filters can be initialized
- Passed: Scenario: Butterworth bandstop filters can be initialized. Scenario: Butterworth bandstop filters can be initialized
- Passed: Scenario: Butterworth bandpass filters can be initialized. Scenario: Butterworth bandpass filters can be initialized
- Passed: Scenario: Chebyshev output coefficients can be computed. Scenario: Chebyshev output coefficients can be computed
- Passed: Scenario: Chebyshev low pass filters are correctly initialized. Scenario: Chebyshev low pass filters are correctly initialized
- Passed: Scenario: Chebyshev high pass filters are correctly initialized. Scenario: Chebyshev high pass filters are correctly initialized
- Passed: Scenario: Chebyshev band pass filters are correctly initialized. Scenario: Chebyshev band pass filters are correctly initialized
- Passed: Scenario: Chebyshev band stop filters are correctly initialized. Scenario: Chebyshev band stop filters are correctly initialized
- Passed: Scenario: Chebyshev type 2 design. Scenario: Chebyshev type 2 design
- Passed: Scenario: A moving average filter can be created. Scenario: A moving average filter can be created
- Passed: Scenario: A moving average filter can be used. Scenario: A moving average filter can be used
- Passed: Scenario: A moving average highpass filter can be used. Scenario: A moving average highpass filter can be used

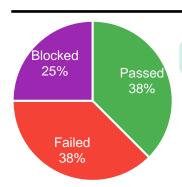
- Passed: Scenario: An buttwerworth lowpass filter generated on the webpage can be used. Scenario: An buttwerworth lowpass filter generated on the webpage can be used
- Passed: Scenario: The coefficients are used in correct order. Scenario: The coefficients are used in correct order
- Passed: Scenario: An FIR exponential lowpass filter can be used. Scenario: An FIR exponential lowpass filter can be used
- Passed: Scenario: An IIR exponential lowpass filter can be used. Scenario: An IIR exponential lowpass filter can be used
- Passed: Scenario: S-plane pole coefficients can be computed. Scenario: S-plane pole coefficients can be computed
- Passed: Scenario: Convolution of parameters. Scenario: Convolution of parameters
- Passed: Scenario: The cpp bindings can be used. Scenario: The cpp bindings can be used

Mutation Tests



example/data/example1.xml

Test suite "builtin.and"



Tests: 8

Passed: 3

Failed: 3

Blocked: 2

Part of: Mutation Tests

File: example/data/example1.xml Timestamp: 2023-06-03 15:43:06.000

Duration: 0:00:03.210000

- Passed: example/source.dart.Line8_builtin.and_0
- Failed: example/source.dart.Line6_builtin.and_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 6

Original line: if $(a == b \&\& (a < c || b > c || b == c)) {$

Mutation: if $(a == b || (a < c || b > c || b == c)) {$

- Passed: example/source2.dart.Line29_builtin.and_0
- Passed: example/source2.dart.Line31_builtin.and_0
- Failed: example/source2.dart.Line22_builtin.and_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 22

Original line: $\}$ else if $(y == 0.0 \&\& text != ") {$

Mutation: $\}$ else if $(y == 0.0 || text != ") \{$

Failed: example/source2.dart.Line31_builtin.and_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 31

Original line: (event.c || event.d || (event.f && event.g)) &&

Mutation: (event.c || event.d || (event.f && event.g)) ||

Blocked: example/source2.dart.Line20_builtin.and_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ")$ {

Mutation: if $(y \le 0.0 || \text{ text } != ") \{$

Blocked: example/source2.dart.Line30_builtin.and_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

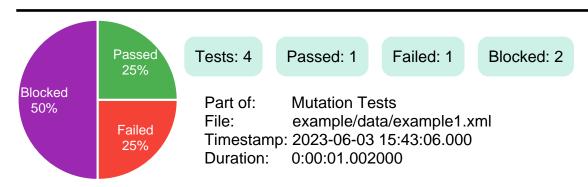
File: example/source2.dart

Line: 30

Original line: event.b &&

Mutation: event.b ||

Test suite "builtin.or"



Passed: example/source.dart.Line6_builtin.or_0

Blocked: example/source.dart.Line6_builtin.or_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 6

Original line: if $(a == b \&\& (a < c || b > c || b == c)) \{$ Mutation: if $(a == b \&\& (a < c \&\& b > c || b == c)) \{$

Failed: example/source2.dart.Line31_builtin.or_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 31

Original line: (event.c || event.d || (event.f && event.g)) && Mutation: (event.c || event.d && (event.f && event.q)) &&

Blocked: example/source2.dart.Line31_builtin.or_0

Type: "timeout"

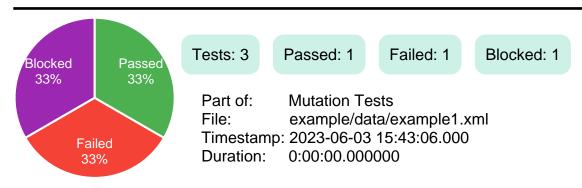
Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 31

Original line: (event.c || event.d || (event.f && event.g)) && Mutation: (event.c && event.d || (event.f && event.g)) &&

Test suite "builtin.op.eq"



Failed: example/source.dart.Line6_builtin.op.eq_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 6

Original line: if $(a == b \&\& (a < c || b > c || b == c)) \{$ Mutation: if $(a != b \&\& (a < c || b > c || b == c)) \{$

Blocked: example/source.dart.Line6_builtin.op.eq_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

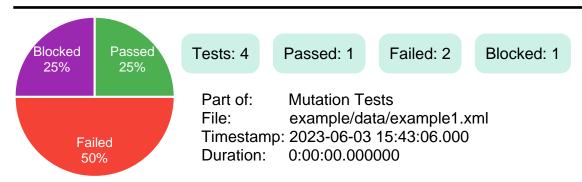
File: example/source.dart

Line: 6

Original line: if $(a == b \&\& (a < c || b > c || b == c)) \{$ Mutation: if $(a == b \&\& (a < c || b > c || b != c)) \{$

Passed: example/source2.dart.Line22_builtin.op.eq_0

Test suite "builtin.op.leq"



Passed: example/source.dart.Line8_builtin.op.leq_1

Failed: example/source.dart.Line8_builtin.op.leq_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 8

Original line: $\}$ else if (b <= 0 && c > 0) { Mutation: $\}$ else if (b == 0 && c > 0) {

Failed: example/source2.dart.Line20_builtin.op.leq_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(y == 0.0 \&\& text != ") \{$

Blocked: example/source2.dart.Line20_builtin.op.leq_1

Type: "timeout"

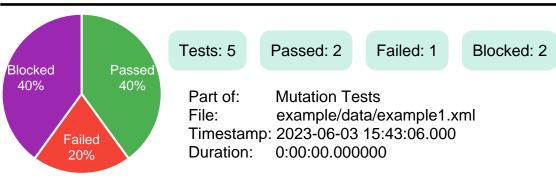
Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(y < 0.0 \&\& text != ") \{$

Test suite "builtin.if"



- Passed: example/source.dart.Line8_builtin.if_0 Blocked: example/source.dart.Line6_builtin.if_0 Type: "timeout" Message: "The test command timed out after 0.0 s" File: example/source.dart Line: 6 Original line: if (a == b && (a < c || b > c || b == c)) { Mutation: if (!(a == b && (a < c || b > c || b == c))) { Passed: example/source2.dart.Line22 builtin.if 0
- Failed: example/source2.dart.Line20_builtin.if_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ")$ if (!(y <= 0.0 && text != ")) { Mutation:

Blocked: example/source2.dart.Line29_builtin.if_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 29

Original line: if (event.a && event.b && (event.c || event.d || (event.f && event.g)) && event.e) {

Mutation: if (!(event.a &&

event.b &&

(event.c || event.d || (event.f && event.g)) &&

event.e)) {

Test suite "builtin.logical.or_chain"

Failed 100%

Tests: 2

Passed: 0

Failed: 2

Blocked: 0

Part of: Mutation Tests

File: example/data/example1.xml Timestamp: 2023-06-03 15:43:06.000

Duration: 0:00:00.000000

Failed: example/source.dart.Line6_builtin.logical.or_chain_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 6

Original line: if $(a == b \&\& (a < c || b > c || b == c)) \{$ Mutation: if $(a == b \&\& (a < c ||!(b > c)|| b == c)) \{$

Failed: example/source2.dart.Line31_builtin.logical.or_chain_0

Type: "undetected"

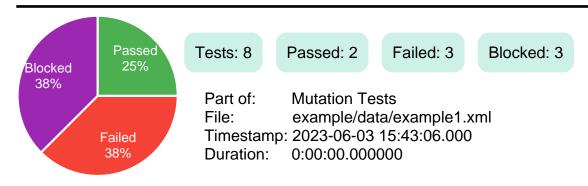
Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 31

Original line: (event.c || event.d || (event.f && event.g)) && Mutation: (event.c ||!(event.d)|| (event.f && event.g)) &&

Test suite "builtin.logical.and_chain2"



Failed: example/source.dart.Line8 builtin.logical.and chain2 1

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 8

Original line: } else if (b \le 0 && c > 0) { Mutation: } else if (b \le 0 &&!(c > 0)) {

Blocked: example/source.dart.Line8_builtin.logical.and_chain2_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 8

Original line: } else if ($b \le 0 \& c > 0$) { Mutation: } else if ($!(b \le 0) \& c > 0$) {

- Passed: example/source2.dart.Line22_builtin.logical.and_chain2_0
- Passed: example/source2.dart.Line31_builtin.logical.and_chain2_0
- Failed: example/source2.dart.Line20_builtin.logical.and_chain2_1

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(y \le 0.0 \&\&!(text != ")) \{$

Failed: example/source2.dart.Line31_builtin.logical.and_chain2_1

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 31

Original line: (event.c || event.d || (event.f && event.g)) && Mutation: (event.c || event.d || (event.f &&!(event.g))) &&

Blocked: example/source2.dart.Line20_builtin.logical.and_chain2_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(!(y \le 0.0)\&\& text != ") \{$

Blocked: example/source2.dart.Line22_builtin.logical.and_chain2_1

Type: "timeout"

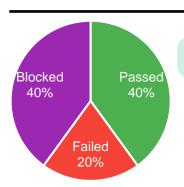
Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 22

Original line: } else if $(y == 0.0 \&\& text != ") \{$ Mutation: } else if $(y == 0.0 \&\&!(text != ")) \{$

Test suite "builtin.if.start"



Tests: 5

Passed: 2

Failed: 1

Blocked: 2

Part of: Mutation Tests

File: example/data/example1.xml Timestamp: 2023-06-03 15:43:06.000

Duration: 0:00:00.000000

- Passed: example/source.dart.Line6_builtin.if.start_0
- Blocked: example/source.dart.Line8_builtin.if.start_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 8

Original line: $\}$ else if $(b \le 0 \& c > 0) \{$ Mutation: $\}$ else if $(!(b \le 0)\& c > 0) \{$

- Passed: example/source2.dart.Line29_builtin.if.start_0
- Failed: example/source2.dart.Line22_builtin.if.start_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 22

Original line: $\}$ else if $(y == 0.0 \&\& text != ") \{$ Mutation: $\}$ else if $(!(y == 0.0)\&\& text != ") \{$

Blocked: example/source2.dart.Line20_builtin.if.start_0

Type: "timeout"

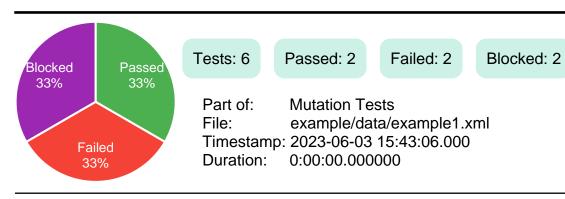
Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(!(y \le 0.0)\&\& text != ") \{$

Test suite "builtin.if.end"



- Passed: example/source.dart.Line6_builtin.if.end_0
- Failed: example/source.dart.Line8_builtin.if.end_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 8

Original line: } else if $(b \le 0 \&\& c > 0) \{$ Mutation: } else if $(b \le 0 \&\&!(c > 0)) \{$

- Passed: example/source2.dart.Line22_builtin.if.end_0
- Failed: example/source2.dart.Line31_builtin.if.end_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 31

Original line: (event.c || event.d || (event.f && event.g)) && Mutation: (event.c || event.d || (event.f &&!(event.g))) &&

Blocked: example/source2.dart.Line20_builtin.if.end_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

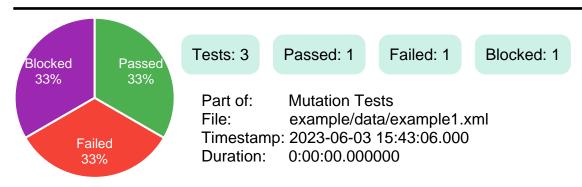
File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(y \le 0.0 \&\&!(text != ")) \{$

Blocked: example/source2.dart.Line31_builtin.if.end_0

Test suite "builtin.logical.chain_not"



Blocked: example/source.dart.Line6_builtin.logical.chain_not_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 6

Original line: if $(a == b \&\& (a < c || b > c || b == c)) \{$ Mutation: if $(a == b \&\&!(a < c || b > c || b == c)) \{$

Passed: example/source2.dart.Line31_builtin.logical.chain_not_0
 Failed: example/source2.dart.Line30_builtin.logical.chain_not_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source2.dart

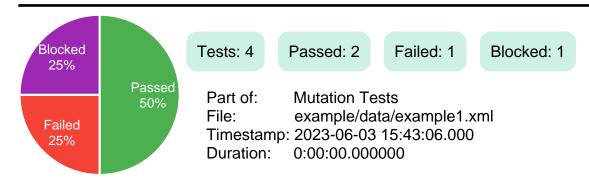
Line: 30

Original line: event.b &&

(event.c || event.d || (event.f && event.g)) &&

Mutation: event.b &&!(event.c || event.d || (event.f && event.g)) &&

Test suite "builtin.number.negative"



Passed: example/source.dart.Line28_builtin.number.negative_0

Failed: example/source.dart.Line24_builtin.number.negative_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 24

Original line: return poly(x, y, z, 2.0); Mutation: return poly(x, y, z, -2.0);

Passed: example/source2.dart.Line11_builtin.number.negative_0
 Blocked: example/source2.dart.Line10_builtin.number.negative_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 10

Original line: double number1 = 25.0; Mutation: double number1 = -25.0;

Test suite "builtin.function.arg2"

Tests: 1 Passed: 0 Failed: 0 Blocked: 1

Part of: Mutation Tests

File: example/data/example1.xml Timestamp: 2023-06-03 15:43:06.000

Duration: 0:00:00.000000

Blocked: example/source.dart.Line32_builtin.function.arg2_0

Type: "timeout"

Blocked

100%

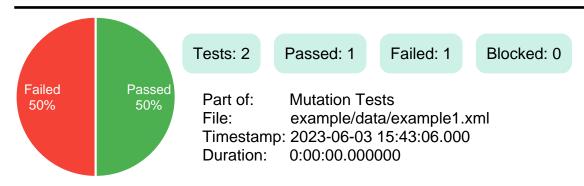
Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 32

Original line: return inner(x, y); Mutation: return inner(y,x);

Test suite "builtin.function.arg3"



Passed: example/source.dart.Line28_builtin.function.arg3_0
 Failed: example/source.dart.Line28_builtin.function.arg3_1

Type: "undetected"

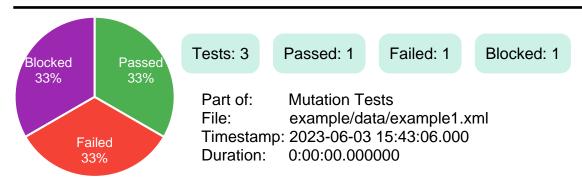
Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 28

Original line: return inner2(x, y, 1.0); Mutation: return inner2(x, 1.0, y);

Test suite "builtin.function.arg4"



Passed: example/source.dart.Line24_builtin.function.arg4_2
 Failed: example/source.dart.Line24_builtin.function.arg4_1

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 24

Original line: return poly(x, y, z, 2.0); Mutation: return poly(x, z, y, 2.0);

Blocked: example/source.dart.Line24_builtin.function.arg4_0

Type: "timeout"

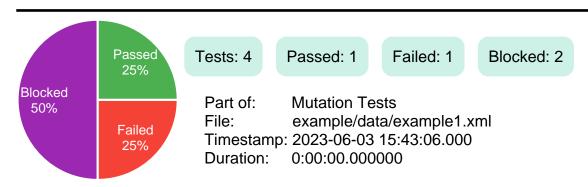
Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 24

Original line: return poly(x, y, z, 2.0); Mutation: return poly(y,x, z, 2.0);

Test suite "builtin.arith.add"



Passed: example/source.dart.Line16_builtin.arith.add_0
 Failed and a second of the second of

Failed: example/source.dart.Line20_builtin.arith.add_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 20

Original line: return a * x * x + b * x + c; Mutation: return a * x * x - b * x + c;

Blocked: example/source.dart.Line7_builtin.arith.add_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 7

Original line: return a + c; Mutation: return a - c;

Blocked: example/source.dart.Line20_builtin.arith.add_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 20

Original line: return a * x * x + b * x + c; Mutation: return a * x * x + b * x - c;

Test suite "builtin.arith.sub"

Tests: 1 Passed: 0 Failed: 1 Blocked: 0

Part of: Mutation Tests

File: example/data/example1.xml Timestamp: 2023-06-03 15:43:06.000

Duration: 0:00:00.000000

Failed: example/source.dart.Line9_builtin.arith.sub_0

Type: "undetected"

Failed

100%

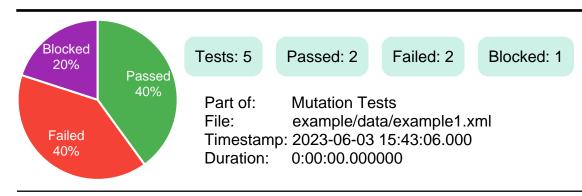
Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 9

Original line: return a - b; Mutation: return a + b;

Test suite "builtin.arith.mul"



- Passed: example/source.dart.Line16_builtin.arith.mul_0
- Passed: example/source.dart.Line20_builtin.arith.mul_0
- Failed: example/source.dart.Line20_builtin.arith.mul_0

Type: "undetected"

Message: "All tests passed despite changing the code!"

File: example/source.dart

Line: 20

Original line: return a * x * x + b * x + c; Mutation: return a * x * x + b / x + c;

Blocked: example/source.dart.Line20_builtin.arith.mul_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source.dart

Line: 20

Original line: return a * x * x + b * x + c; Mutation: return a / x * x + b * x + c;

Failed: example/source2.dart.Line15_builtin.arith.mul_0

Type: "undetected"

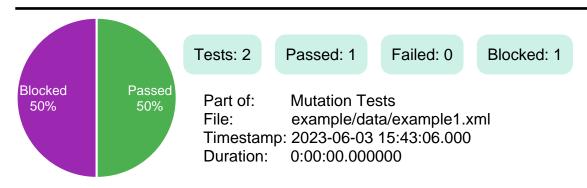
Message: "All tests passed despite changing the code!"

File: example/source2.dart

Line: 15

Original line: return number1 * x / number2; Mutation: return number1 / x / number2;

Test suite "builtin.op.neq"



Passed: example/source2.dart.Line22_builtin.op.neq_0

Blocked: example/source2.dart.Line20_builtin.op.neq_0

Type: "timeout"

Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 20

Original line: if $(y \le 0.0 \&\& text != ") \{$ Mutation: if $(y \le 0.0 \&\& text == ") \{$

Test suite "builtin.logical.and_chain"

Passed 1 Passed: 1 Failed: 0 Blocked: 0

Part of: Mutation Tests
File: example/data/example1.xml
Timestamp: 2023-06-03 15:43:06.000
Duration: 0:00:00.000000

• Passed: example/source2.dart.Line29_builtin.logical.and_chain_0

Test suite "builtin.arith.div"

Tests: 1 Passed: 0 Failed: 0 Blocked: 1

Part of: Mutation Tests

File: example/data/example1.xml Timestamp: 2023-06-03 15:43:06.000

Duration: 0:00:00.000000

Blocked: example/source2.dart.Line15_builtin.arith.div_0

Type: "timeout"

Blocked

100%

Message: "The test command timed out after 0.0 s"

File: example/source2.dart

Line: 15

Original line: return number1 * x / number2; Mutation: return number1 * x * number2;