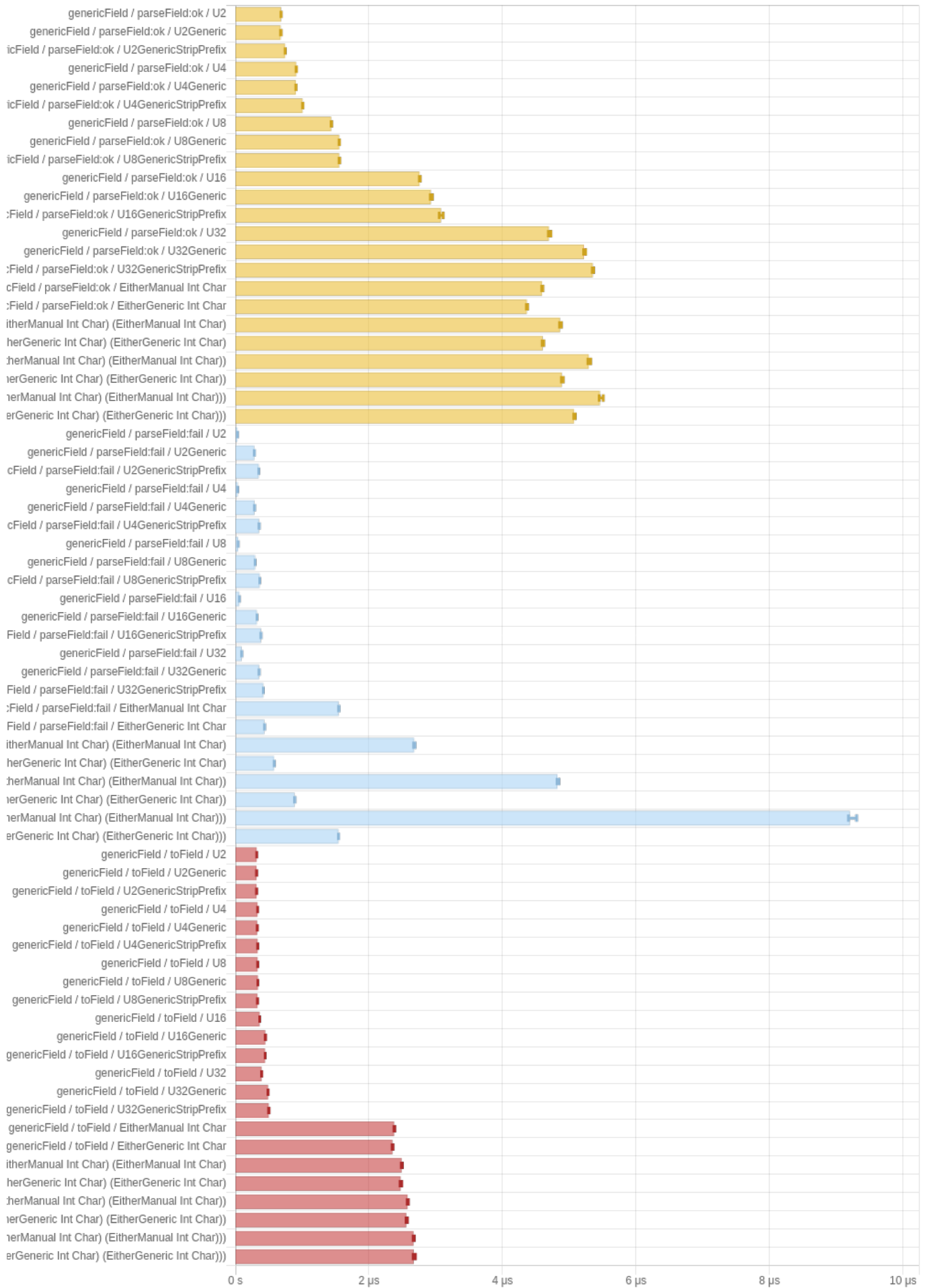
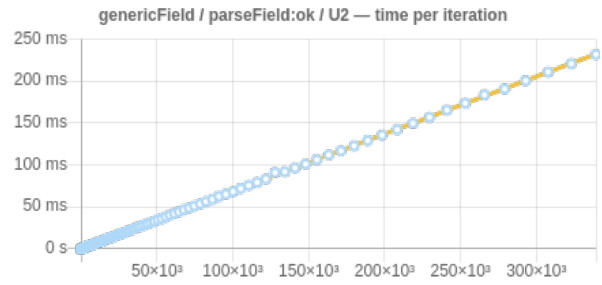
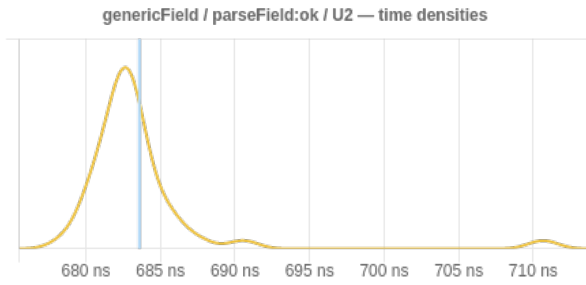


critierion performance measurements

overview



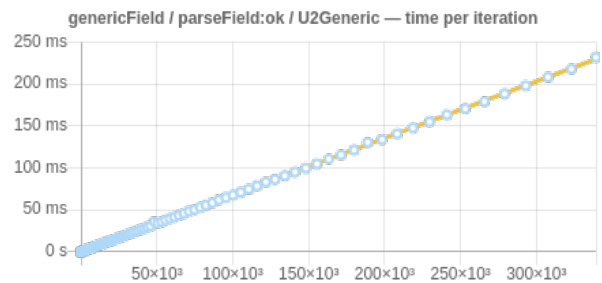
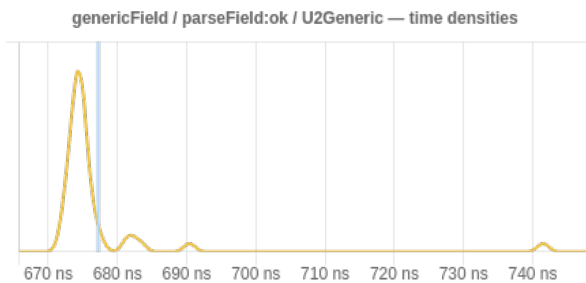
genericField / parseField:ok / U2



	lower bound	estimate	upper bound
OLS regression	683 ns	684 ns	686 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	683 ns	684 ns	686 ns
Standard deviation	1.91 ns	4.73 ns	9.22 ns

Outlying measurements have no (0.455%) effect on estimated standard deviation.

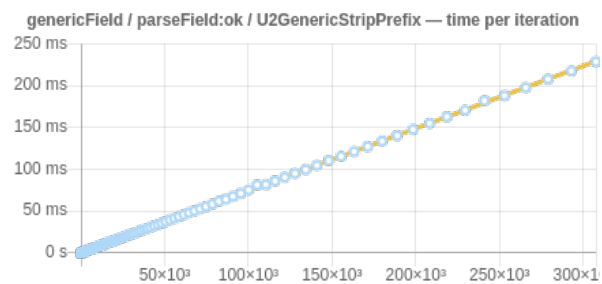
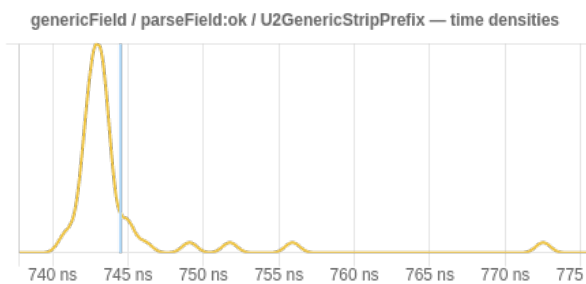
genericField / parseField:ok / U2Generic



	lower bound	estimate	upper bound
OLS regression	675 ns	677 ns	678 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	675 ns	677 ns	685 ns
Standard deviation	2.80 ns	10.6 ns	23.5 ns

Outlying measurements have a moderate (16.5%) effect on estimated standard deviation.

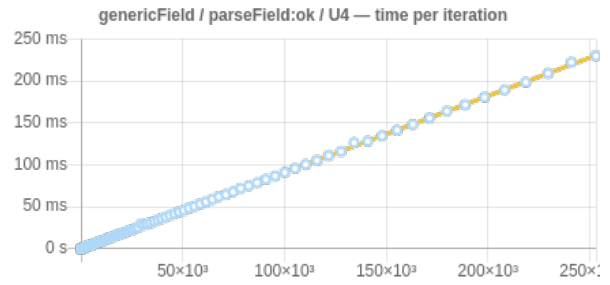
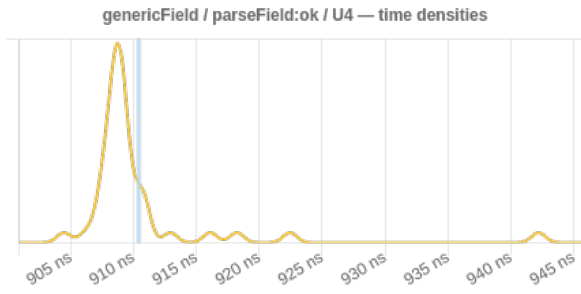
genericField / parseField:ok / U2GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	743 ns	745 ns	746 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	743 ns	745 ns	748 ns
Standard deviation	2.14 ns	5.14 ns	11.1 ns

Outlying measurements have no (0.459%) effect on estimated standard deviation.

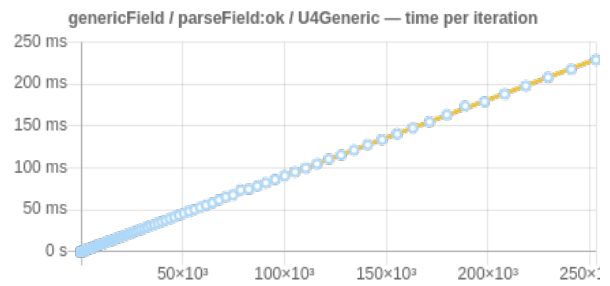
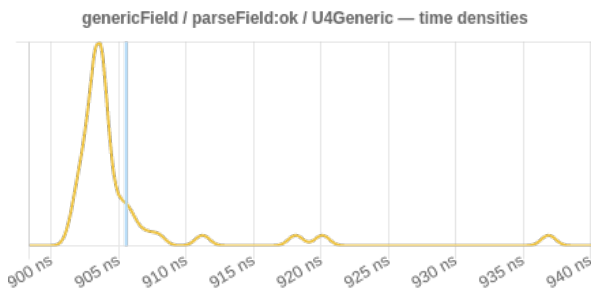
genericField / parseField:ok / U4



	lower bound	estimate	upper bound
OLS regression	909 ns	911 ns	914 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	909 ns	910 ns	914 ns
Standard deviation	2.52 ns	5.82 ns	11.9 ns

Outlying measurements have no (0.467%) effect on estimated standard deviation.

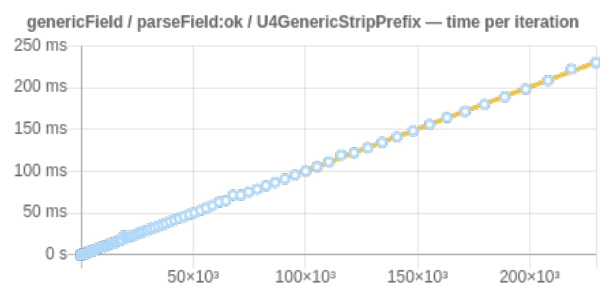
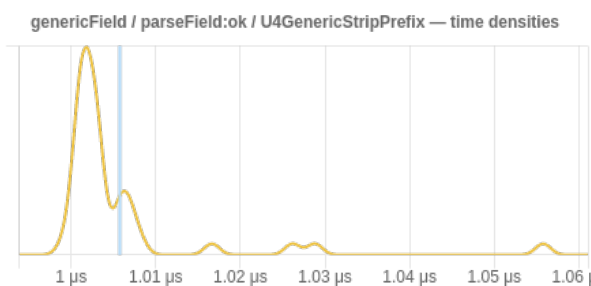
genericField / parseField:ok / U4Generic



	lower bound	estimate	upper bound
OLS regression	904 ns	905 ns	908 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	904 ns	906 ns	908 ns
Standard deviation	3.07 ns	6.13 ns	11.8 ns

Outlying measurements have no (0.467%) effect on estimated standard deviation.

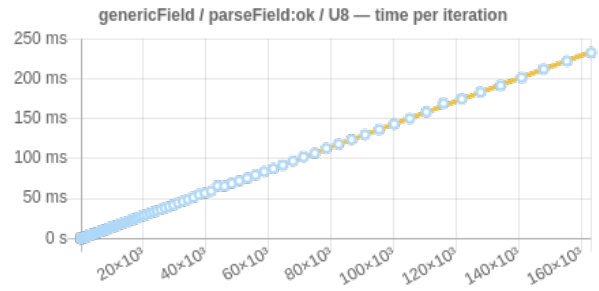
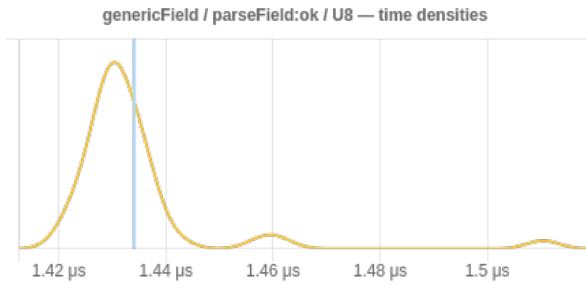
genericField / parseField:ok / U4GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	1.00 μs	1.00 μs	1.01 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	1.00 μs	1.01 μs	1.01 μs
Standard deviation	5.02 ns	9.88 ns	17.7 ns

Outlying measurements have a slight (7.14%) effect on estimated standard deviation.

genericField / parseField:ok / U8

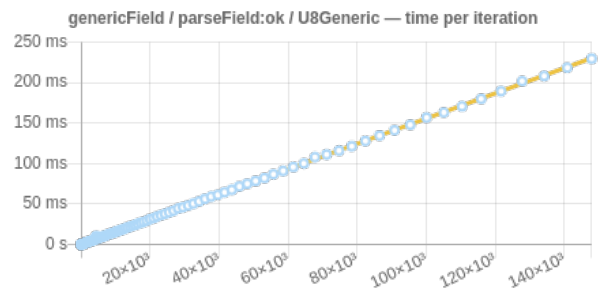
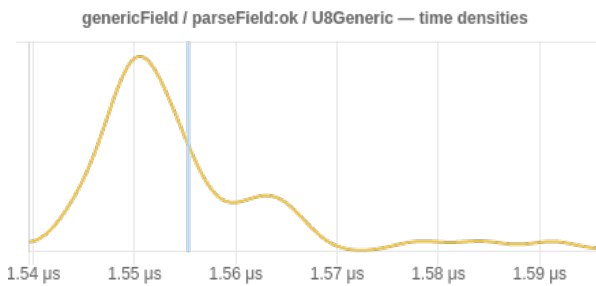


lower bound estimate upper bound

OLS regression	1.43 μ s	1.43 μ s	1.44 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	1.43 μ s	1.43 μ s	1.44 μ s
Standard deviation	6.64 ns	14.0 ns	28.1 ns

Outlying measurements have a slight (6.48%) effect on estimated standard deviation.

genericField / parseField:ok / U8Generic

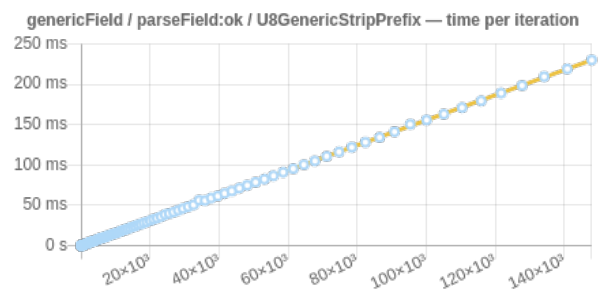
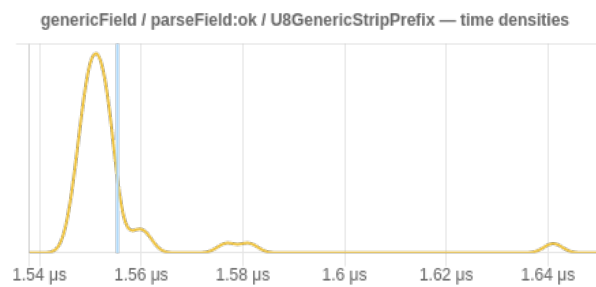


lower bound estimate upper bound

OLS regression	1.55 μ s	1.55 μ s	1.56 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	1.55 μ s	1.56 μ s	1.56 μ s
Standard deviation	6.96 ns	9.99 ns	13.8 ns

Outlying measurements have no (0.493%) effect on estimated standard deviation.

genericField / parseField:ok / U8GenericStripPrefix

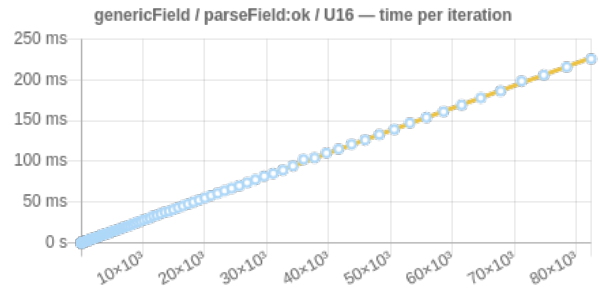
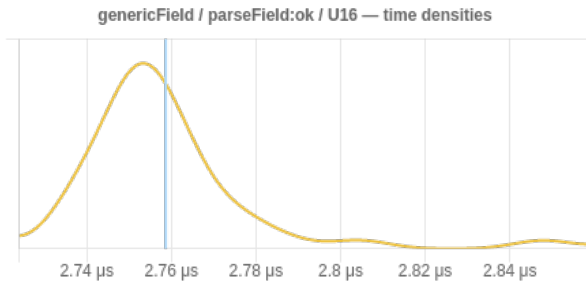


lower bound estimate upper bound

OLS regression	1.55 μ s	1.55 μ s	1.56 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	1.55 μ s	1.56 μ s	1.56 μ s
Standard deviation	5.47 ns	15.0 ns	29.3 ns

Outlying measurements have a slight (6.53%) effect on estimated standard deviation.

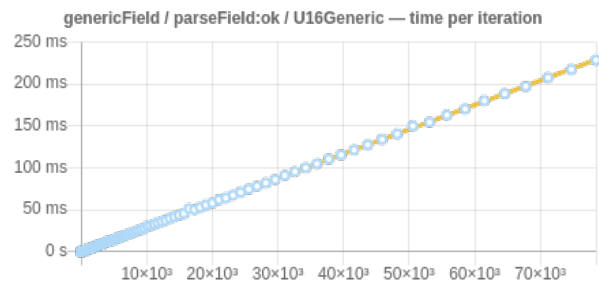
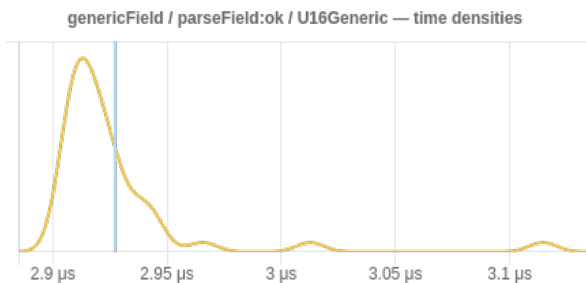
genericField / parseField:ok / U16



	lower bound	estimate	upper bound
OLS regression	2.75 μ s	2.76 μ s	2.76 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.75 μ s	2.76 μ s	2.77 μ s
Standard deviation	12.1 ns	19.5 ns	34.6 ns

Outlying measurements have no (0.524%) effect on estimated standard deviation.

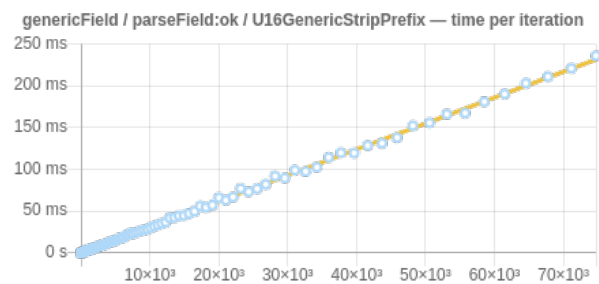
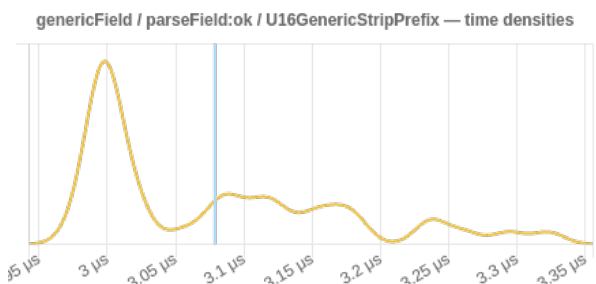
genericField / parseField:ok / U16Generic



	lower bound	estimate	upper bound
OLS regression	2.91 μ s	2.92 μ s	2.92 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.92 μ s	2.93 μ s	2.95 μ s
Standard deviation	14.3 ns	34.7 ns	74.1 ns

Outlying measurements have a slight (8.99%) effect on estimated standard deviation.

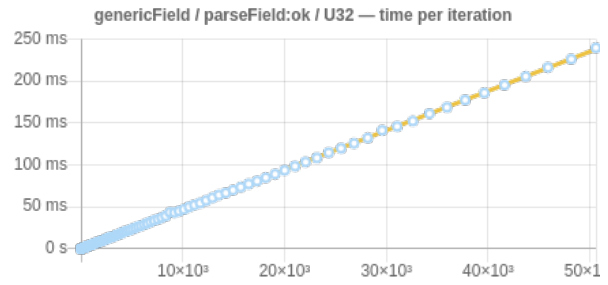
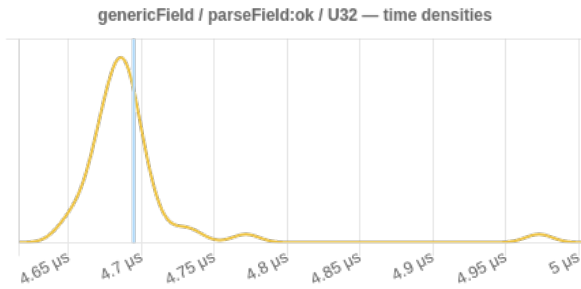
genericField / parseField:ok / U16GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	3.07 μ s	3.10 μ s	3.12 μ s
R ² goodness-of-fit	0.999	0.999	1.00
Mean execution time	3.05 μ s	3.08 μ s	3.11 μ s
Standard deviation	75.7 ns	95.0 ns	116 ns

Outlying measurements have a moderate (39.5%) effect on estimated standard deviation.

genericField / parseField:ok / U32

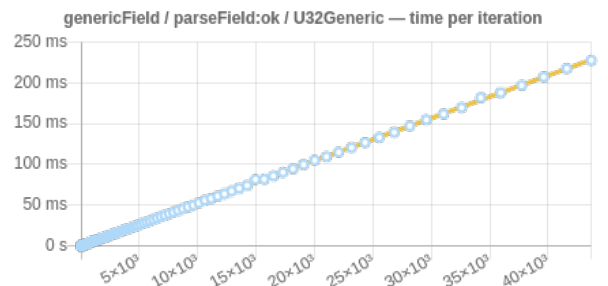
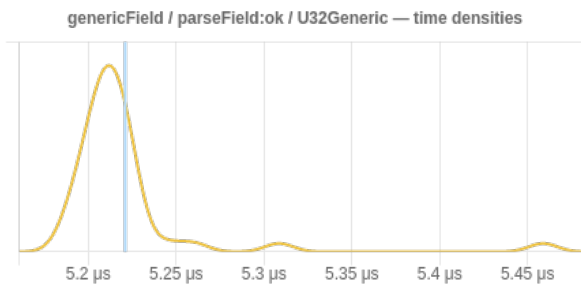


lower bound estimate upper bound

OLS regression	4.69 μs	4.70 μs	4.71 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.69 μs	4.69 μs	4.72 μs
Standard deviation	18.4 ns	48.1 ns	108 ns

Outlying measurements have a slight (6.79%) effect on estimated standard deviation.

genericField / parseField:ok / U32Generic

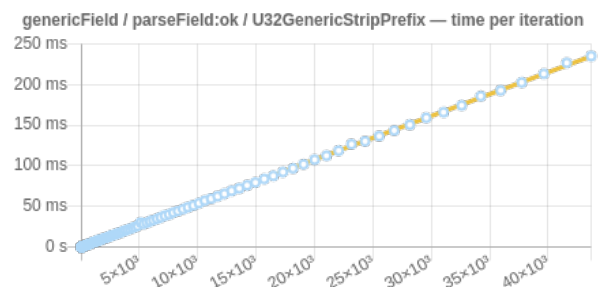
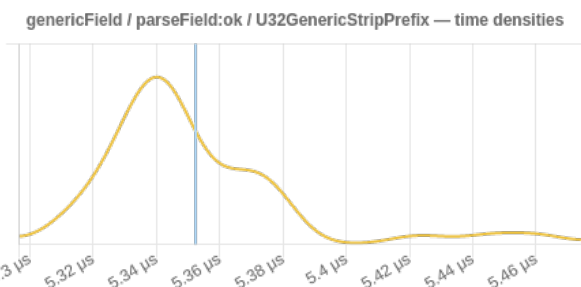


lower bound estimate upper bound

OLS regression	5.21 μs	5.22 μs	5.24 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	5.21 μs	5.22 μs	5.25 μs
Standard deviation	15.9 ns	42.3 ns	81.4 ns

Outlying measurements have no (0.562%) effect on estimated standard deviation.

genericField / parseField:ok / U32GenericStripPrefix



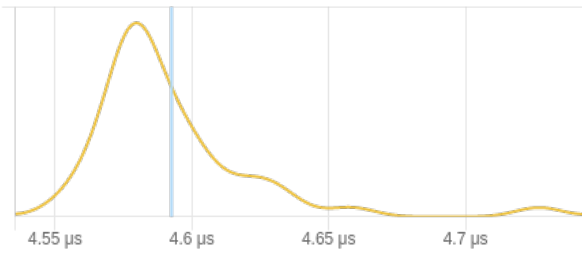
lower bound estimate upper bound

OLS regression	5.35 μs	5.37 μs	5.39 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	5.35 μs	5.35 μs	5.36 μs
Standard deviation	21.8 ns	30.6 ns	43.0 ns

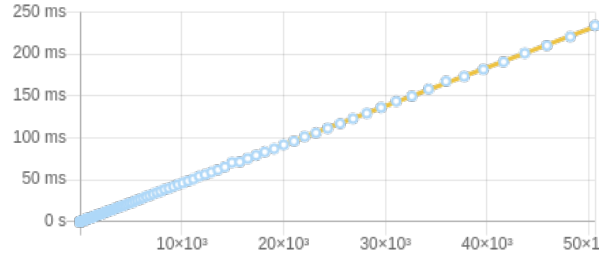
Outlying measurements have no (0.562%) effect on estimated standard deviation.

genericField / parseField:ok / EitherManual Int Char

genericField / parseField:ok / EitherManual Int Char — time densities



genericField / parseField:ok / EitherManual Int Char — time per iteration



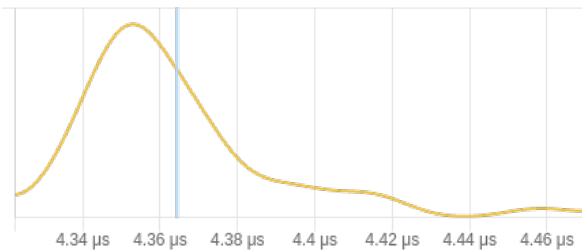
lower bound estimate upper bound

OLS regression	4.59 µs	4.60 µs	4.61 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.59 µs	4.59 µs	4.60 µs
Standard deviation	19.5 ns	29.9 ns	52.7 ns

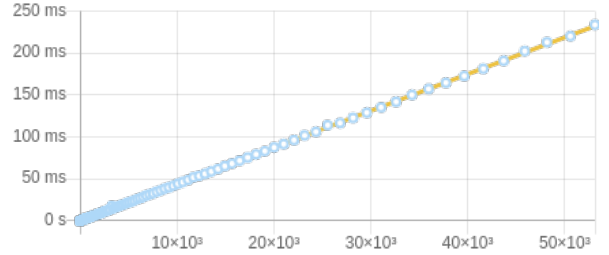
Outlying measurements have no (0.552%) effect on estimated standard deviation.

genericField / parseField:ok / EitherGeneric Int Char

genericField / parseField:ok / EitherGeneric Int Char — time densities



genericField / parseField:ok / EitherGeneric Int Char — time per iteration



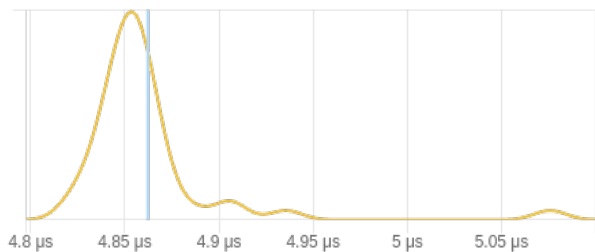
lower bound estimate upper bound

OLS regression	4.36 µs	4.37 µs	4.38 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.36 µs	4.36 µs	4.37 µs
Standard deviation	18.1 ns	24.7 ns	35.7 ns

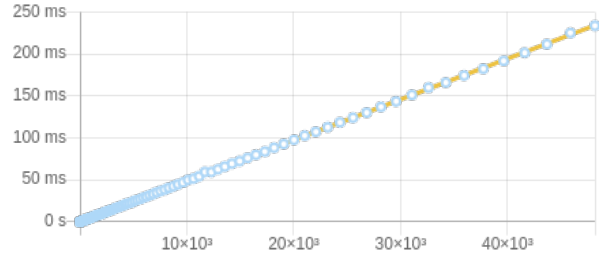
Outlying measurements have no (0.549%) effect on estimated standard deviation.

genericField / parseField:ok / EitherManual (EitherManual Int Char) (EitherManual Int Char)

genericField / parseField:ok / EitherManual (EitherManual Int Char) (EitherManual Int Char) — time densities



genericField / parseField:ok / EitherManual (EitherManual Int Char) (EitherManual Int Char) — time per iteration



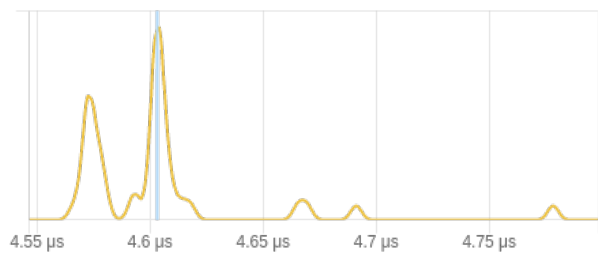
lower bound estimate upper bound

OLS regression	4.85 µs	4.86 µs	4.87 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.85 µs	4.86 µs	4.88 µs
Standard deviation	18.2 ns	39.0 ns	82.7 ns

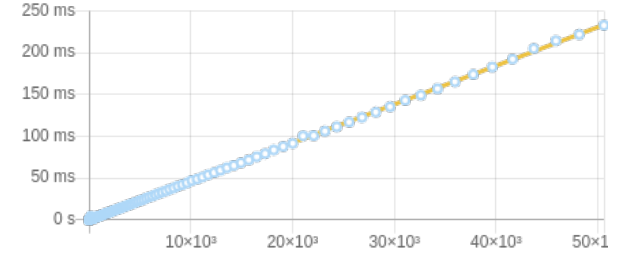
Outlying measurements have no (0.556%) effect on estimated standard deviation.

genericField / parseField:ok / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)

genericField / parseField:ok / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char) — time densities



genericField / parseField:ok / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char) — time per iteration



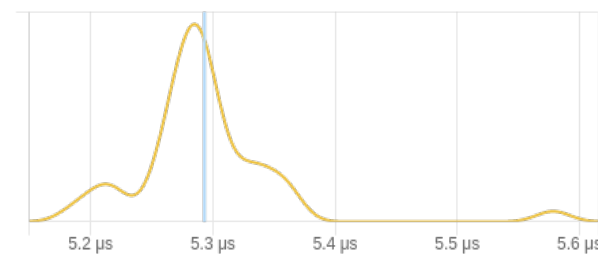
lower bound estimate upper bound

OLS regression	4.59 μ s	4.61 μ s	4.63 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.60 μ s	4.60 μ s	4.62 μ s
Standard deviation	23.7 ns	38.0 ns	64.6 ns

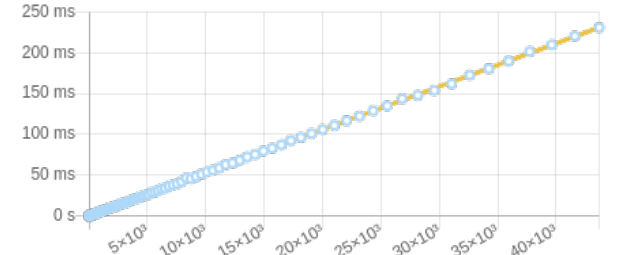
Outlying measurements have no (0.552%) effect on estimated standard deviation.

genericField / parseField:ok / EitherManual (EitherManual Int Char) (EitherManual Int Char) (EitherManual (EitherManual Int Char) (EitherManual Int Char))

genericField / parseField:ok / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) — time densities



genericField / parseField:ok / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) — time per iteration

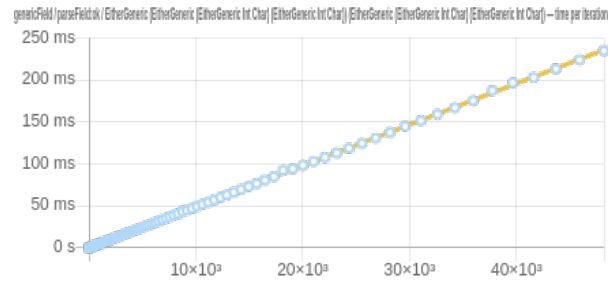
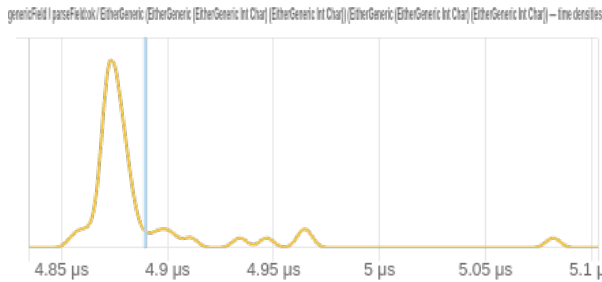


lower bound estimate upper bound

OLS regression	5.27 μ s	5.29 μ s	5.30 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	5.28 μ s	5.29 μ s	5.32 μ s
Standard deviation	37.1 ns	59.6 ns	103 ns

Outlying measurements have a slight (7.47%) effect on estimated standard deviation.

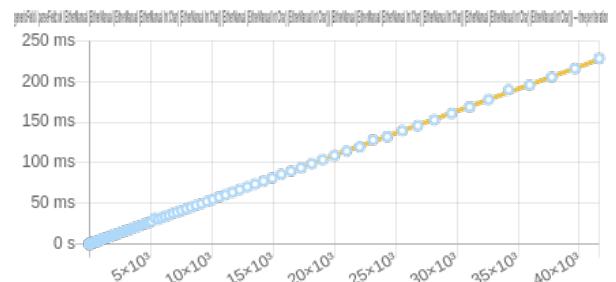
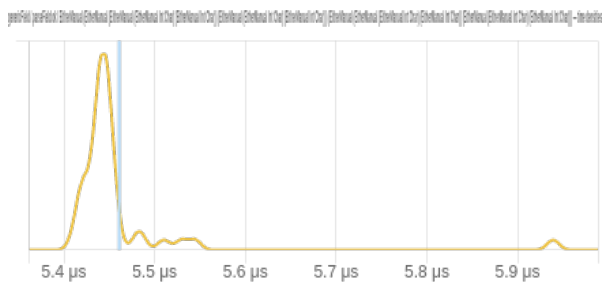
genericField / parseField:ok / EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))



	lower bound	estimate	upper bound
OLS regression	4.88 μ s	4.89 μ s	4.91 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.88 μ s	4.89 μ s	4.91 μ s
Standard deviation	21.2 ns	38.6 ns	67.2 ns

Outlying measurements have no (0.556%) effect on estimated standard deviation.

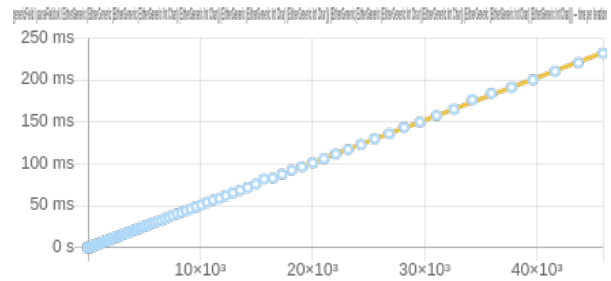
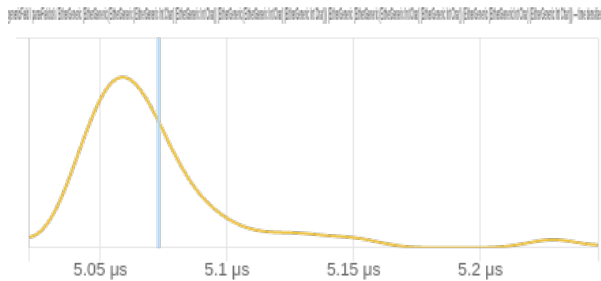
genericField / parseField:ok / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char))) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char))



	lower bound	estimate	upper bound
OLS regression	5.44 μ s	5.46 μ s	5.47 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	5.45 μ s	5.46 μ s	5.51 μ s
Standard deviation	23.7 ns	78.8 ns	160 ns

Outlying measurements have a moderate (11.8%) effect on estimated standard deviation.

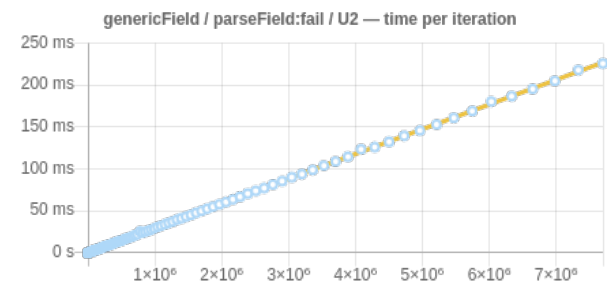
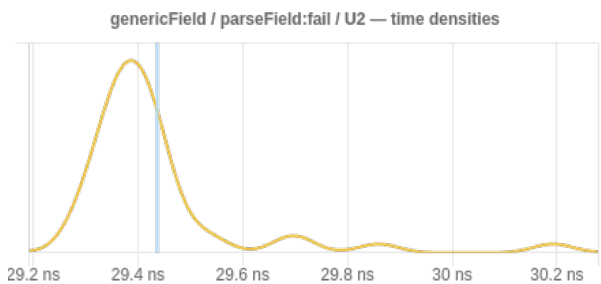
genericField / parseField:ok / EitherGeneric (EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))) (EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)))



	lower bound	estimate	upper bound
OLS regression	5.06 μ s	5.07 μ s	5.09 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	5.07 μ s	5.07 μ s	5.09 μ s
Standard deviation	21.8 ns	34.4 ns	63.9 ns

Outlying measurements have no (0.559%) effect on estimated standard deviation.

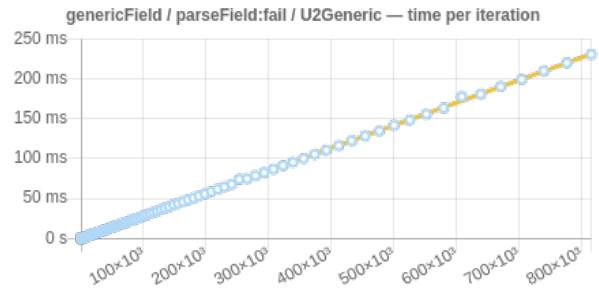
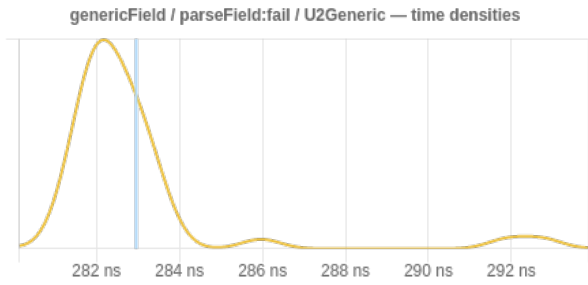
genericField / parseField:fail / U2



	lower bound	estimate	upper bound
OLS regression	29.4 ns	29.5 ns	29.5 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	29.4 ns	29.4 ns	29.5 ns
Standard deviation	92.2 ps	162 ps	297 ps

Outlying measurements have no (0.352%) effect on estimated standard deviation.

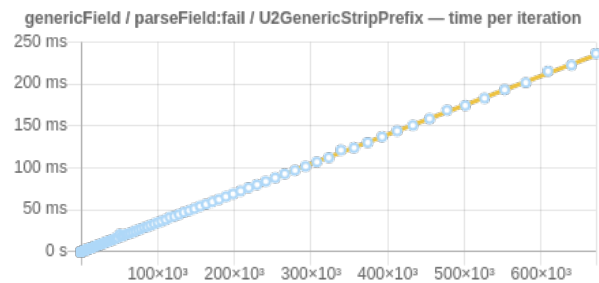
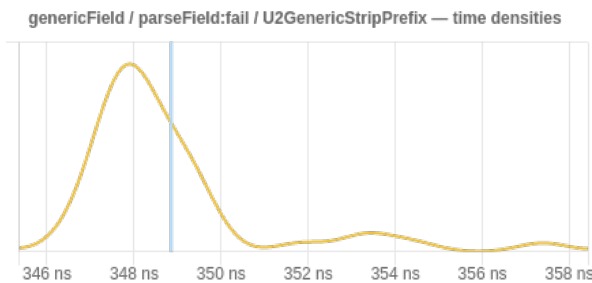
genericField / parseField:fail / U2Generic



	lower bound	estimate	upper bound
OLS regression	283 ns	283 ns	284 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	283 ns	283 ns	284 ns
Standard deviation	878 ps	2.27 ns	3.83 ns

Outlying measurements have no (0.420%) effect on estimated standard deviation.

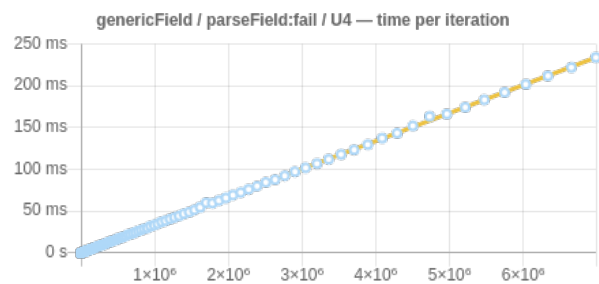
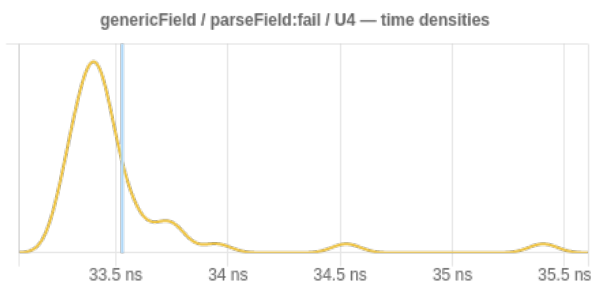
genericField / parseField:fail / U2GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	348 ns	349 ns	351 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	348 ns	349 ns	350 ns
Standard deviation	1.51 ns	2.17 ns	3.32 ns

Outlying measurements have no (0.427%) effect on estimated standard deviation.

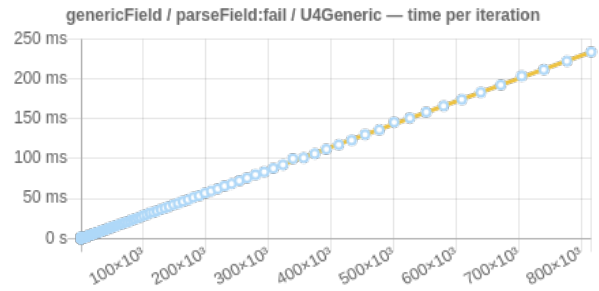
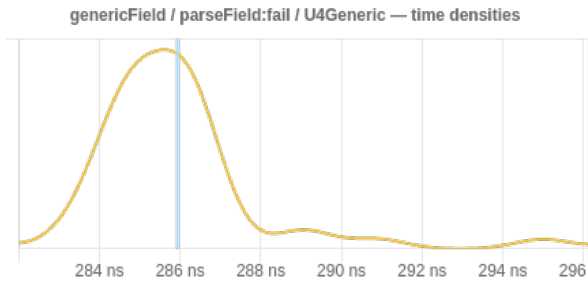
genericField / parseField:fail / U4



	lower bound	estimate	upper bound
OLS regression	33.4 ns	33.5 ns	33.6 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	33.5 ns	33.5 ns	33.7 ns
Standard deviation	179 ps	367 ps	671 ps

Outlying measurements have a moderate (10.8%) effect on estimated standard deviation.

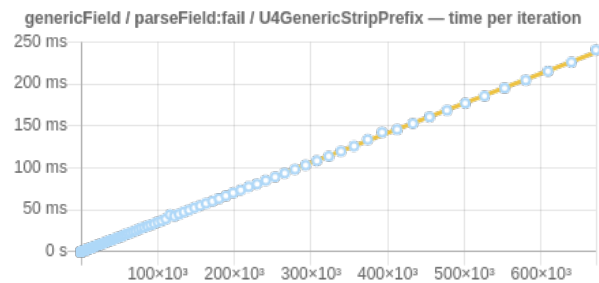
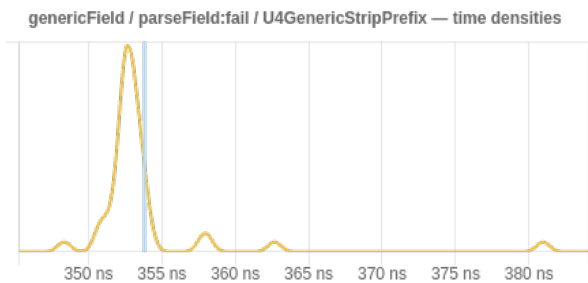
genericField / parseField:fail / U4Generic



	lower bound	estimate	upper bound
OLS regression	286 ns	286 ns	287 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	285 ns	286 ns	287 ns
Standard deviation	1.30 ns	2.01 ns	3.48 ns

Outlying measurements have no (0.420%) effect on estimated standard deviation.

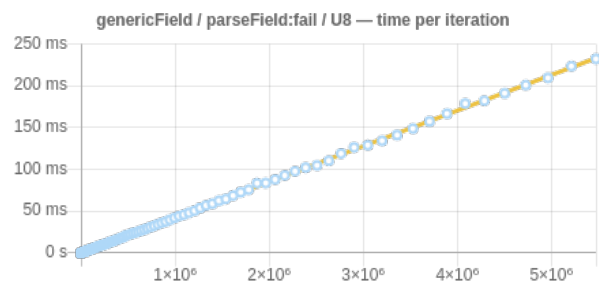
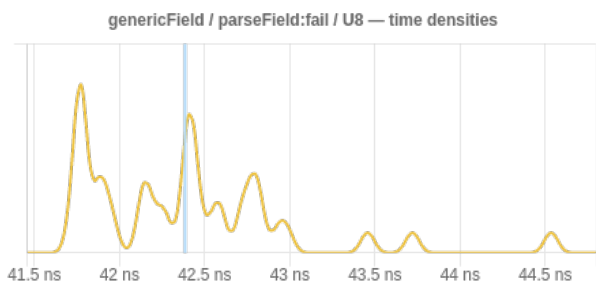
genericField / parseField:fail / U4GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	353 ns	354 ns	355 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	353 ns	354 ns	357 ns
Standard deviation	1.69 ns	4.71 ns	9.76 ns

Outlying measurements have a moderate (13.0%) effect on estimated standard deviation.

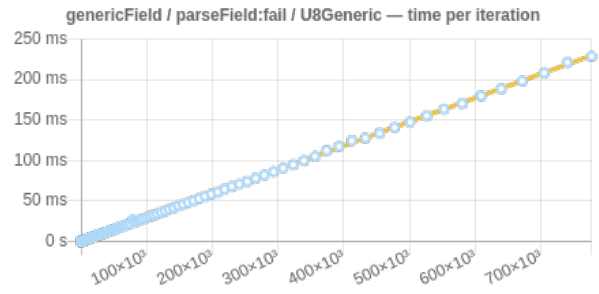
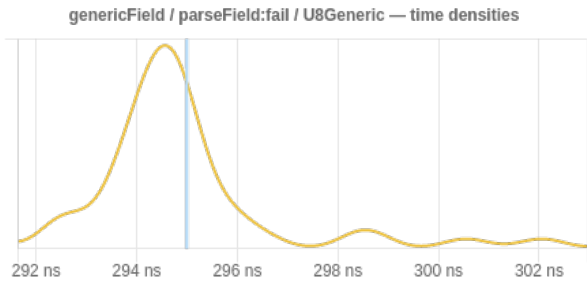
genericField / parseField:fail / U8



	lower bound	estimate	upper bound
OLS regression	42.3 ns	42.5 ns	42.7 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	42.2 ns	42.4 ns	42.6 ns
Standard deviation	428 ps	579 ps	884 ps

Outlying measurements have a moderate (15.8%) effect on estimated standard deviation.

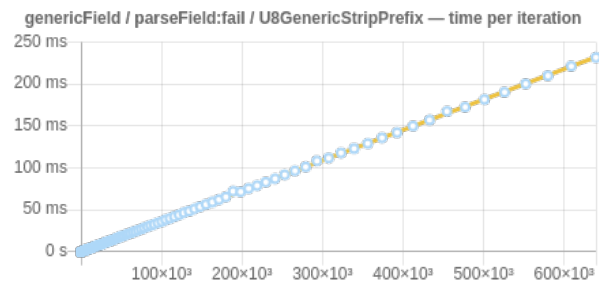
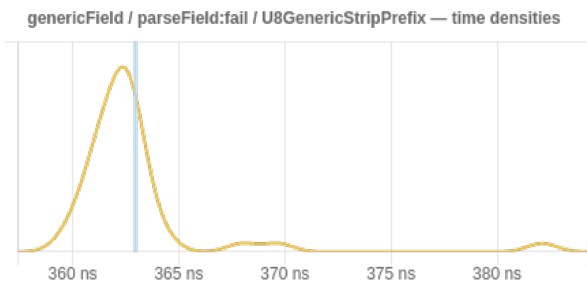
genericField / parseField:fail / U8Generic



	lower bound	estimate	upper bound
OLS regression	295 ns	295 ns	296 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	295 ns	295 ns	296 ns
Standard deviation	1.24 ns	1.87 ns	2.77 ns

Outlying measurements have no (0.422%) effect on estimated standard deviation.

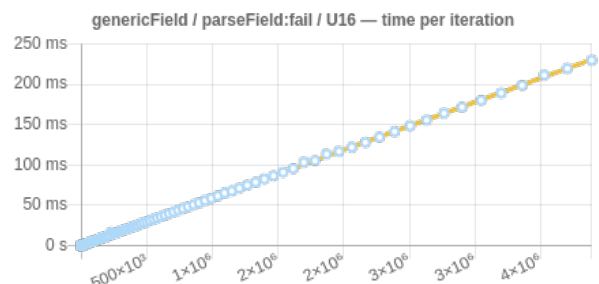
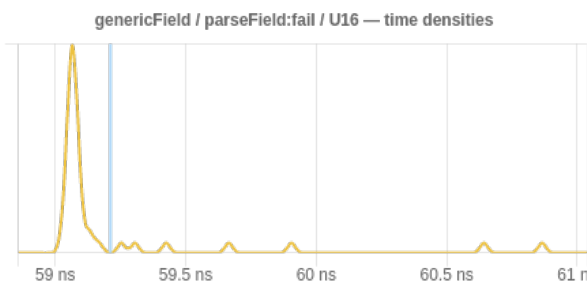
genericField / parseField:fail / U8GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	362 ns	363 ns	364 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	362 ns	363 ns	365 ns
Standard deviation	1.49 ns	3.49 ns	6.74 ns

Outlying measurements have a slight (7.32%) effect on estimated standard deviation.

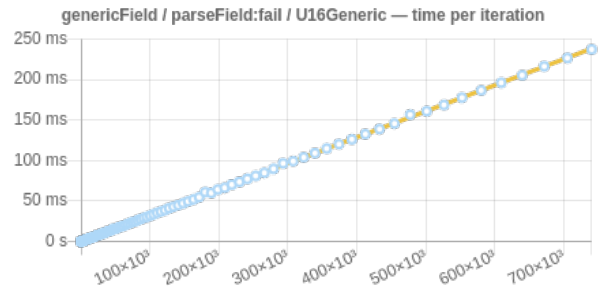
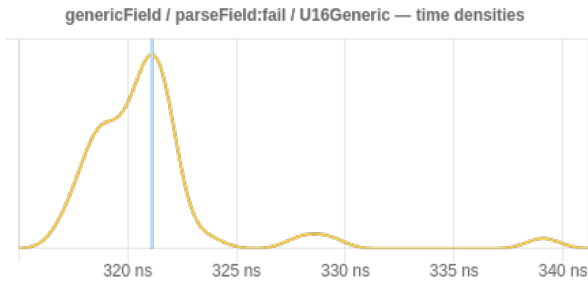
genericField / parseField:fail / U16



	lower bound	estimate	upper bound
OLS regression	59.1 ns	59.3 ns	59.4 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	59.1 ns	59.2 ns	59.4 ns
Standard deviation	173 ps	386 ps	632 ps

Outlying measurements have no (0.370%) effect on estimated standard deviation.

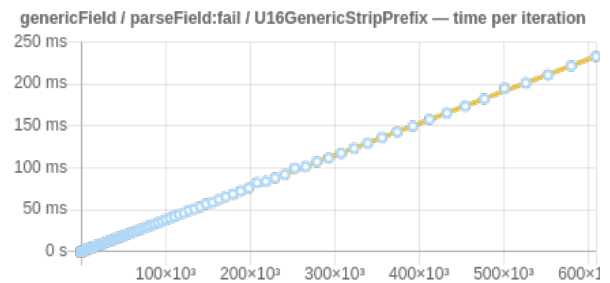
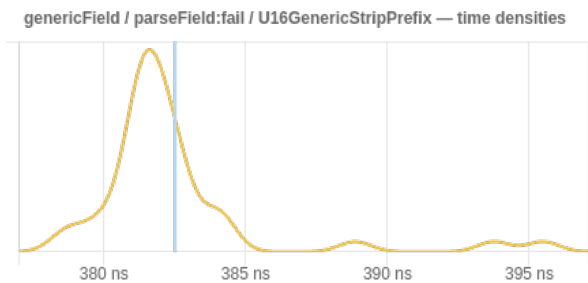
genericField / parseField:fail / U16Generic



	lower bound	estimate	upper bound
OLS regression	321 ns	322 ns	322 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	320 ns	321 ns	323 ns
Standard deviation	1.95 ns	3.60 ns	6.72 ns

Outlying measurements have a slight (9.66%) effect on estimated standard deviation.

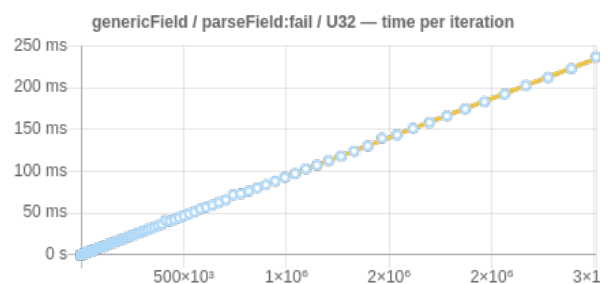
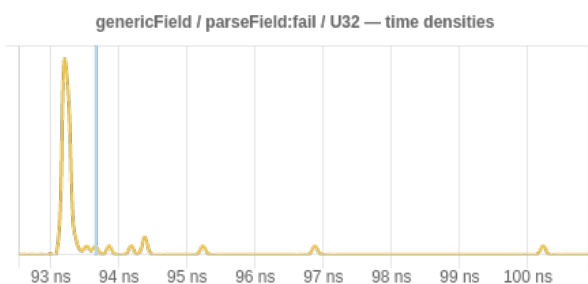
genericField / parseField:fail / U16GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	382 ns	383 ns	384 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	382 ns	383 ns	384 ns
Standard deviation	1.71 ns	3.19 ns	5.02 ns

Outlying measurements have a slight (2.99%) effect on estimated standard deviation.

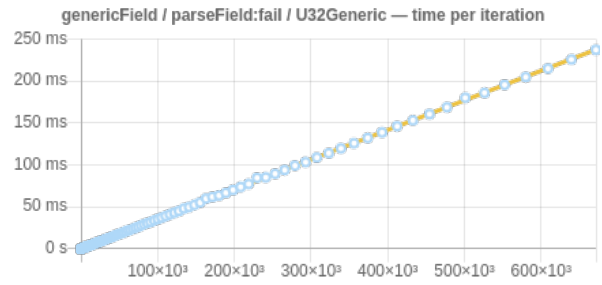
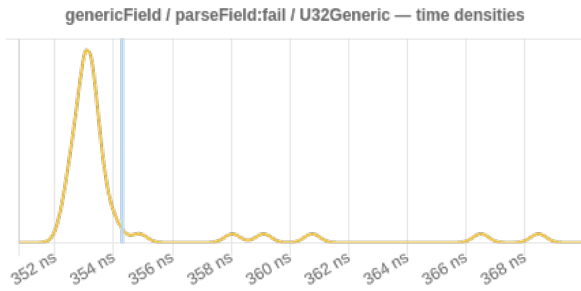
genericField / parseField:fail / U32



	lower bound	estimate	upper bound
OLS regression	93.4 ns	93.5 ns	93.8 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	93.4 ns	93.7 ns	94.3 ns
Standard deviation	493 ps	1.22 ns	2.31 ns

Outlying measurements have a moderate (13.9%) effect on estimated standard deviation.

genericField / parseField:fail / U32Generic

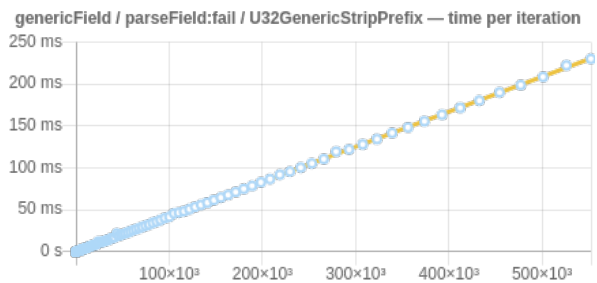
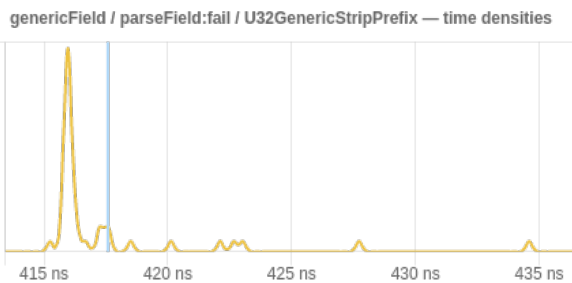


lower bound estimate upper bound

OLS regression	353 ns	354 ns	355 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	354 ns	354 ns	356 ns
Standard deviation	1.66 ns	3.38 ns	5.28 ns

Outlying measurements have a slight (7.29%) effect on estimated standard deviation.

genericField / parseField:fail / U32GenericStripPrefix

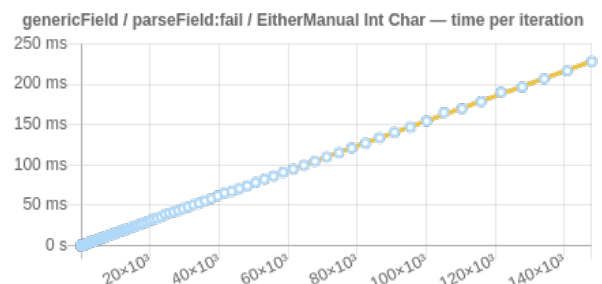
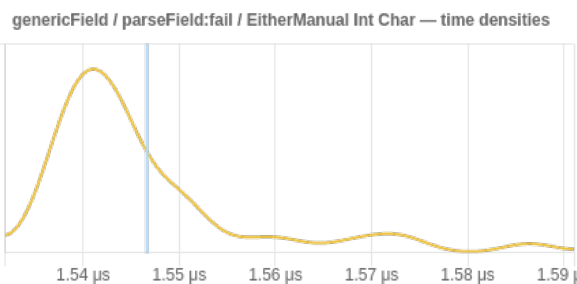


lower bound estimate upper bound

OLS regression	416 ns	417 ns	418 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	417 ns	418 ns	419 ns
Standard deviation	2.07 ns	3.64 ns	6.29 ns

Outlying measurements have a slight (6.16%) effect on estimated standard deviation.

genericField / parseField:fail / EitherManual Int Char

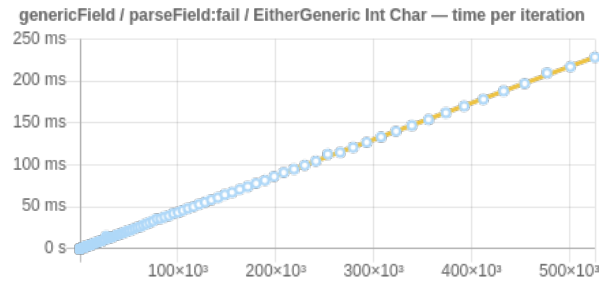
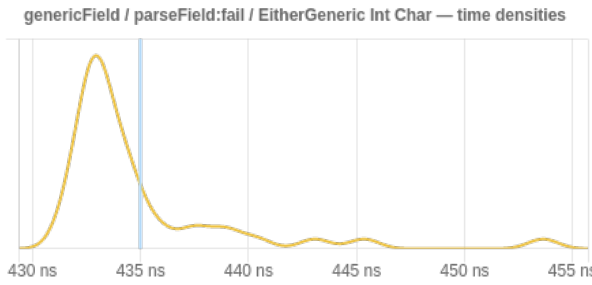


lower bound estimate upper bound

OLS regression	1.54 μs	1.54 μs	1.55 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	1.54 μs	1.55 μs	1.55 μs
Standard deviation	7.94 ns	10.9 ns	16.2 ns

Outlying measurements have no (0.493%) effect on estimated standard deviation.

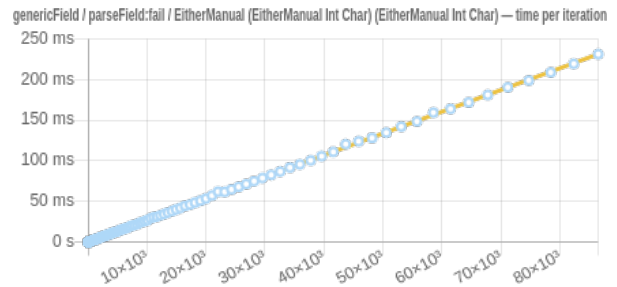
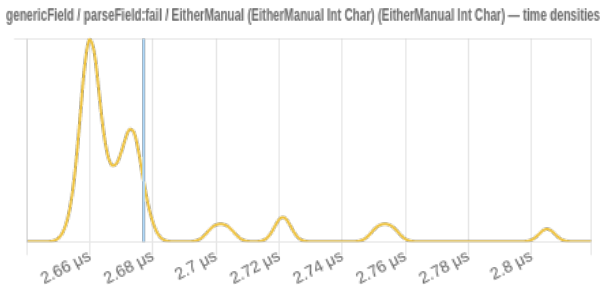
genericField / parseField:fail / EitherGeneric Int Char



	lower bound	estimate	upper bound
OLS regression	433 ns	434 ns	435 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	434 ns	435 ns	437 ns
Standard deviation	2.50 ns	4.18 ns	7.12 ns

Outlying measurements have a slight (7.04%) effect on estimated standard deviation.

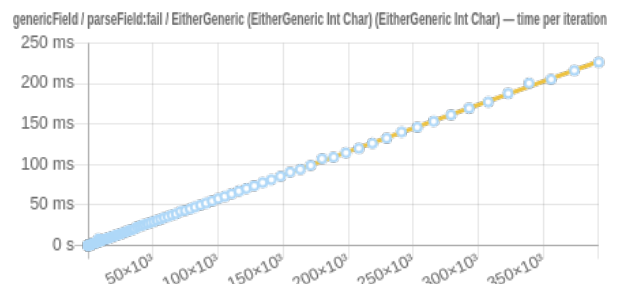
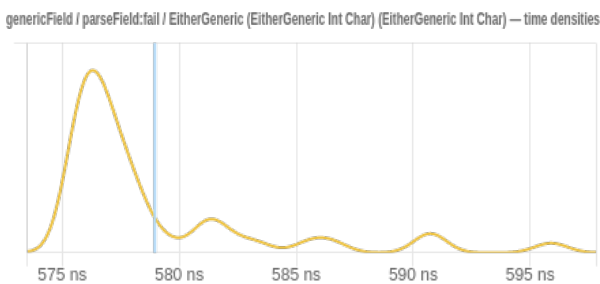
genericField / parseField:fail / EitherManual (EitherManual Int Char) (EitherManual Int Char)



	lower bound	estimate	upper bound
OLS regression	2.67 µs	2.67 µs	2.68 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.67 µs	2.68 µs	2.69 µs
Standard deviation	18.8 ns	30.6 ns	46.4 ns

Outlying measurements have a slight (8.40%) effect on estimated standard deviation.

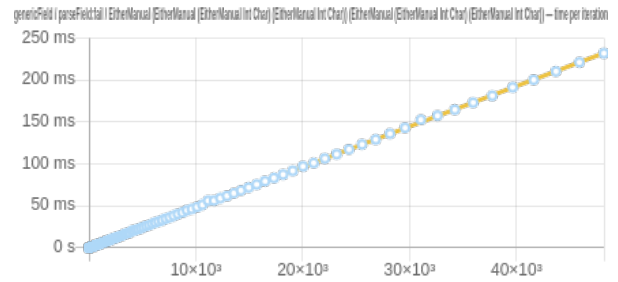
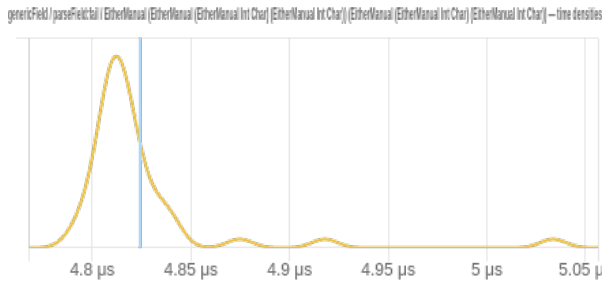
genericField / parseField:fail / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)



	lower bound	estimate	upper bound
OLS regression	577 ns	579 ns	581 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	578 ns	579 ns	581 ns
Standard deviation	3.12 ns	4.64 ns	6.74 ns

Outlying measurements have no (0.448%) effect on estimated standard deviation.

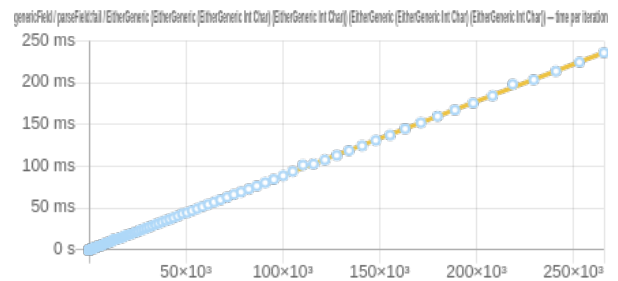
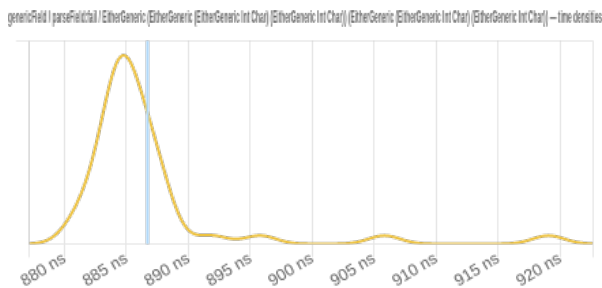
genericField / parseField:fail / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char))



	lower bound	estimate	upper bound
OLS regression	4.81 μs	4.82 μs	4.83 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	4.82 μs	4.82 μs	4.84 μs
Standard deviation	17.0 ns	38.5 ns	72.8 ns

Outlying measurements have no (0.556%) effect on estimated standard deviation.

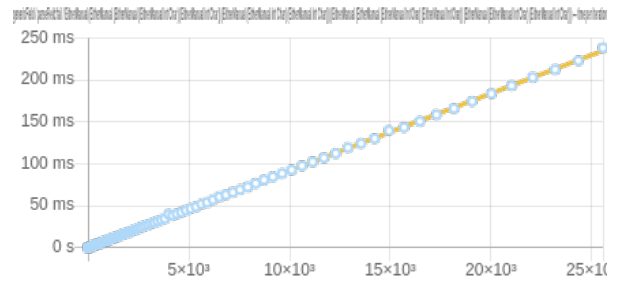
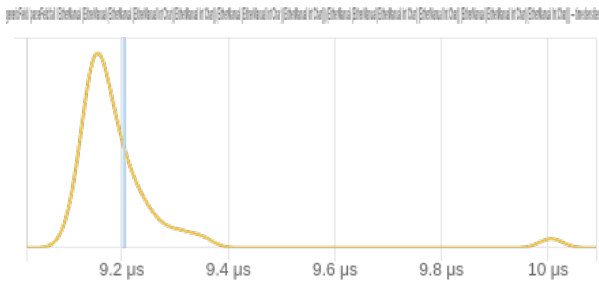
genericField / parseField:fail / EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))



	lower bound	estimate	upper bound
OLS regression	886 ns	888 ns	891 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	885 ns	887 ns	890 ns
Standard deviation	2.86 ns	6.43 ns	13.1 ns

Outlying measurements have no (0.465%) effect on estimated standard deviation.

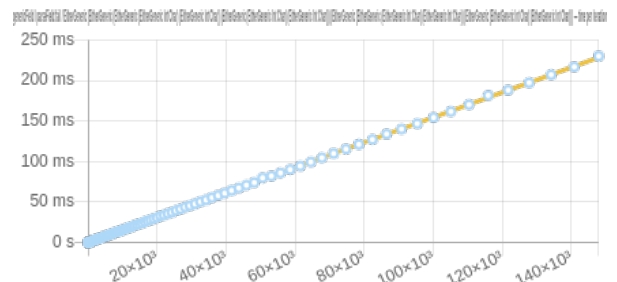
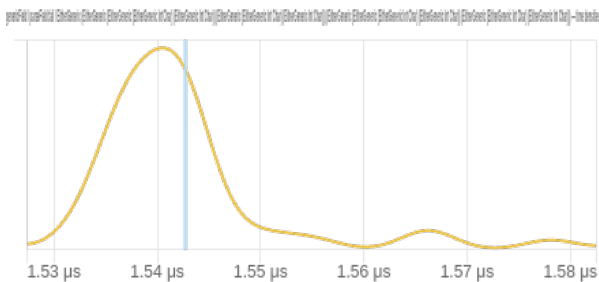
genericField / parseField:fail / EitherManual (EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char))) (EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char))) (EitherManual (EitherManual Int Char) (EitherManual Int Char)))



	lower bound	estimate	upper bound
OLS regression	9.17 µs	9.20 µs	9.23 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	9.18 µs	9.20 µs	9.31 µs
Standard deviation	49.1 ns	135 ns	292 ns

Outlying measurements have a moderate (11.4%) effect on estimated standard deviation.

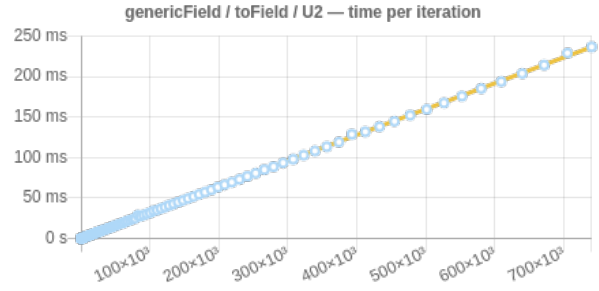
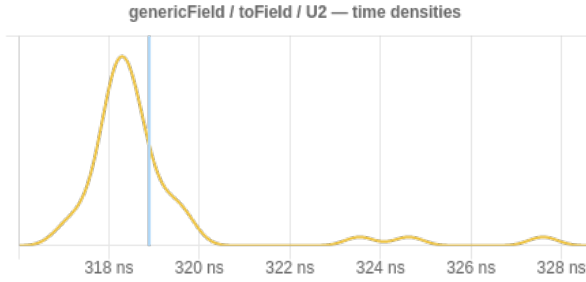
genericField / parseField:fail / EitherGeneric (EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))) (EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)))



	lower bound	estimate	upper bound
OLS regression	1.54 µs	1.54 µs	1.55 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	1.54 µs	1.54 µs	1.55 µs
Standard deviation	5.75 ns	8.98 ns	13.4 ns

Outlying measurements have no (0.493%) effect on estimated standard deviation.

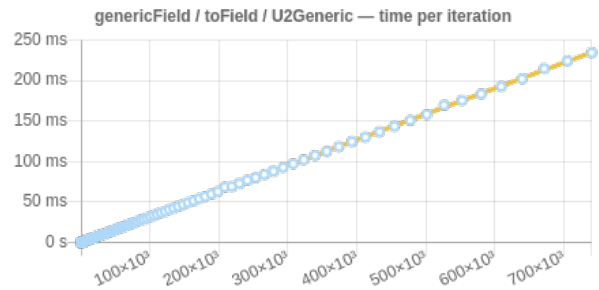
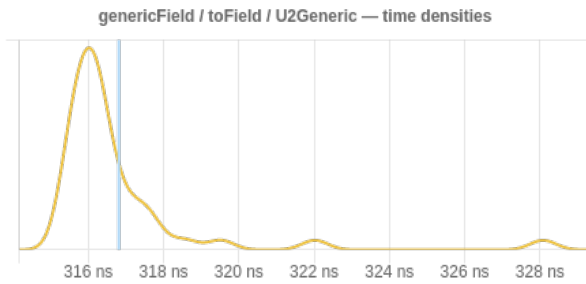
genericField / toField / U2



	lower bound	estimate	upper bound
OLS regression	318 ns	319 ns	321 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	318 ns	319 ns	320 ns
Standard deviation	1.03 ns	1.91 ns	3.12 ns

Outlying measurements have no (0.424%) effect on estimated standard deviation.

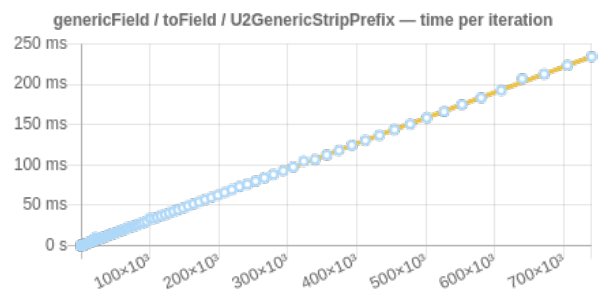
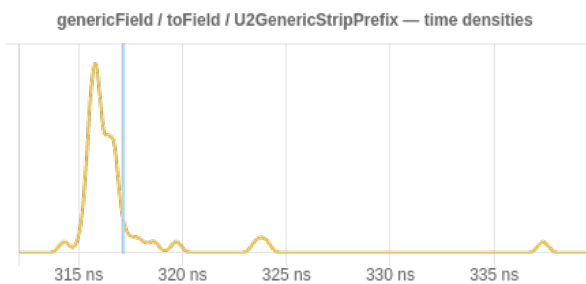
genericField / toField / U2Generic



	lower bound	estimate	upper bound
OLS regression	316 ns	317 ns	318 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	316 ns	317 ns	318 ns
Standard deviation	1.03 ns	2.12 ns	3.98 ns

Outlying measurements have no (0.424%) effect on estimated standard deviation.

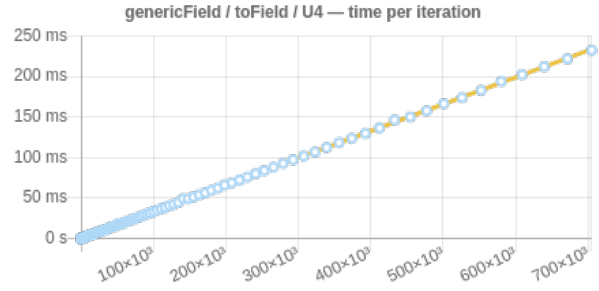
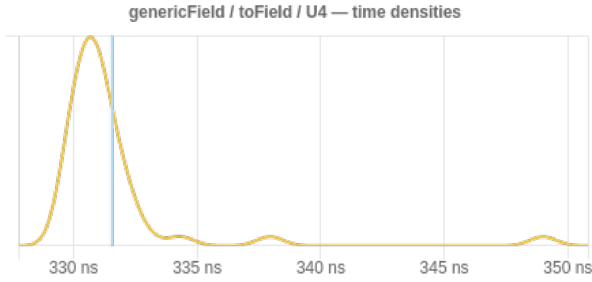
genericField / toField / U2GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	316 ns	317 ns	318 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	316 ns	317 ns	319 ns
Standard deviation	1.49 ns	3.64 ns	7.38 ns

Outlying measurements have a moderate (10.1%) effect on estimated standard deviation.

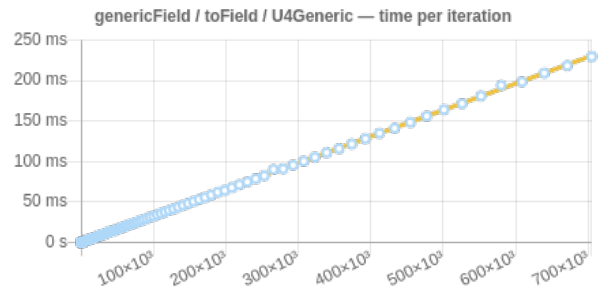
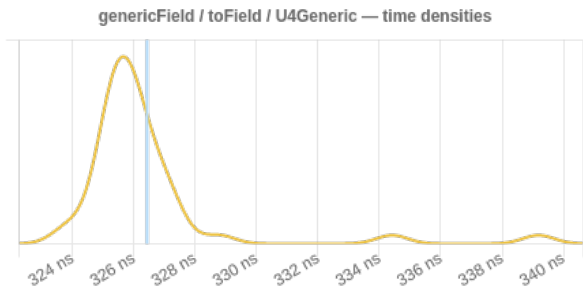
genericField / toField / U4



	lower bound	estimate	upper bound
OLS regression	331 ns	331 ns	332 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	331 ns	332 ns	334 ns
Standard deviation	1.04 ns	3.04 ns	6.31 ns

Outlying measurements have a slight (6.85%) effect on estimated standard deviation.

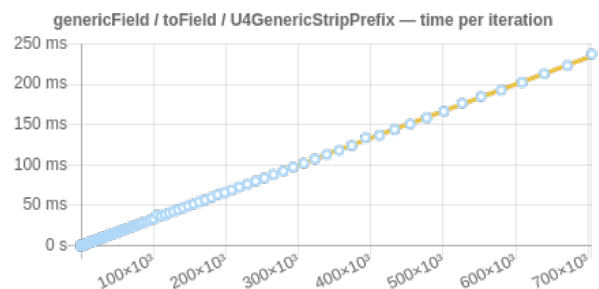
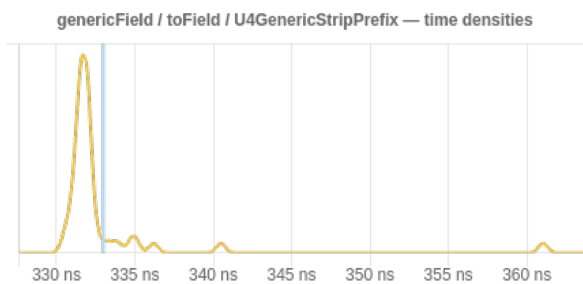
genericField / toField / U4Generic



	lower bound	estimate	upper bound
OLS regression	326 ns	327 ns	328 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	326 ns	326 ns	328 ns
Standard deviation	977 ps	2.56 ns	4.57 ns

Outlying measurements have no (0.426%) effect on estimated standard deviation.

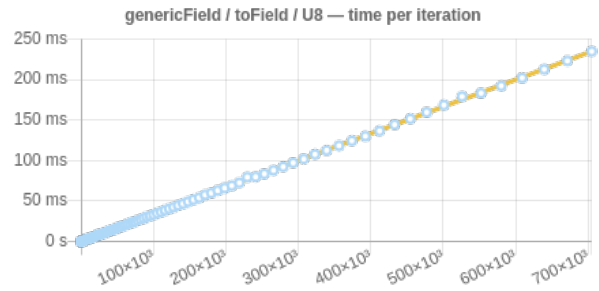
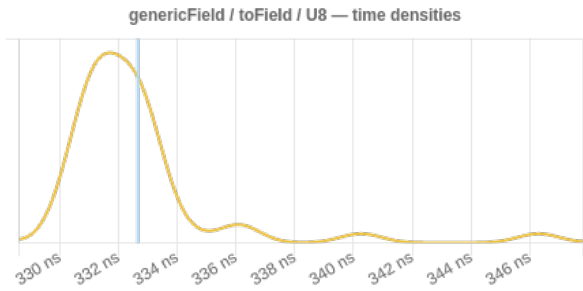
genericField / toField / U4GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	332 ns	333 ns	334 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	332 ns	333 ns	336 ns
Standard deviation	1.24 ns	4.67 ns	9.42 ns

Outlying measurements have a moderate (14.2%) effect on estimated standard deviation.

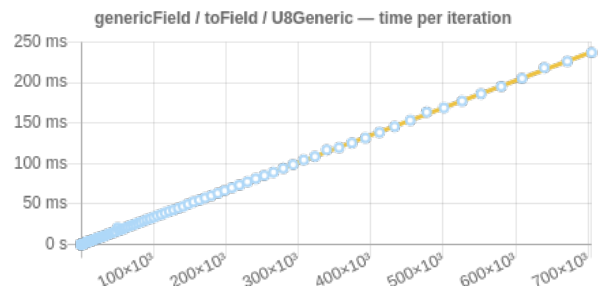
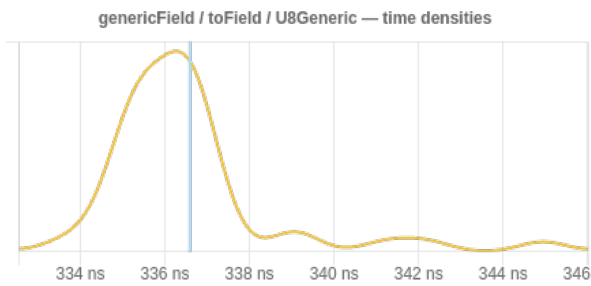
genericField / toField / U8



	lower bound	estimate	upper bound
OLS regression	332 ns	333 ns	334 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	332 ns	333 ns	334 ns
Standard deviation	1.47 ns	2.76 ns	4.86 ns

Outlying measurements have a slight (3.15%) effect on estimated standard deviation.

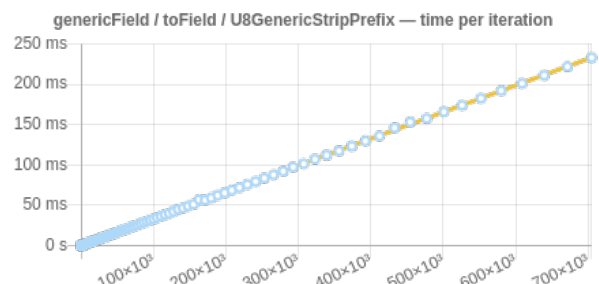
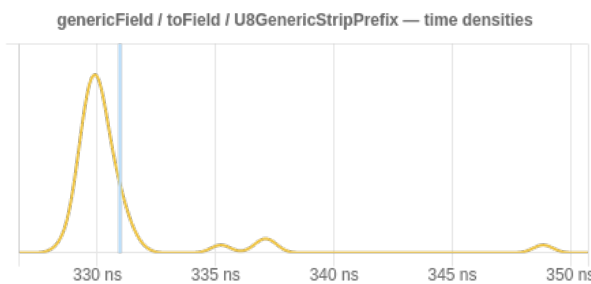
genericField / toField / U8Generic



	lower bound	estimate	upper bound
OLS regression	336 ns	337 ns	338 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	336 ns	337 ns	337 ns
Standard deviation	1.27 ns	2.04 ns	3.21 ns

Outlying measurements have no (0.426%) effect on estimated standard deviation.

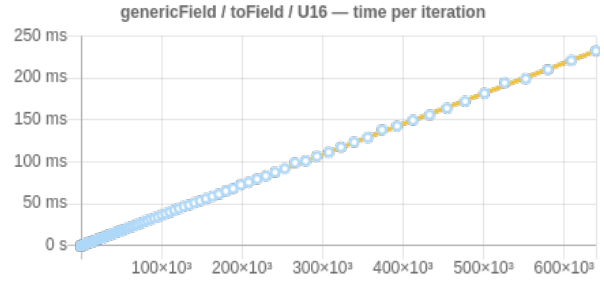
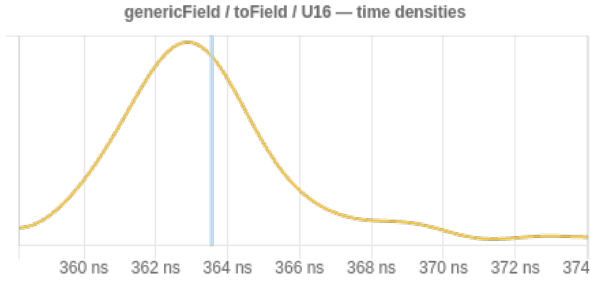
genericField / toField / U8GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	330 ns	331 ns	332 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	330 ns	331 ns	332 ns
Standard deviation	1.47 ns	3.29 ns	6.54 ns

Outlying measurements have a slight (7.67%) effect on estimated standard deviation.

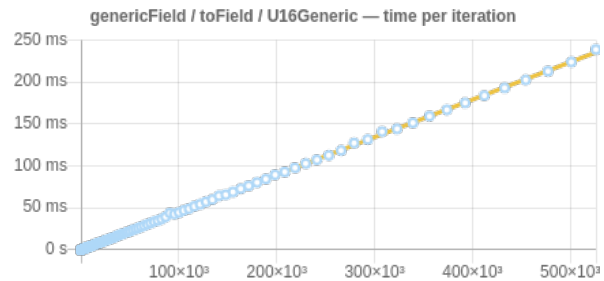
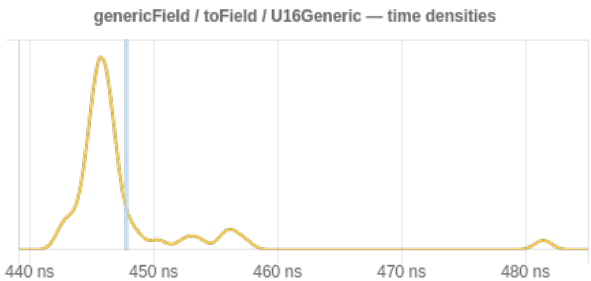
genericField / toField / U16



	lower bound	estimate	upper bound
OLS regression	362 ns	363 ns	364 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	363 ns	364 ns	364 ns
Standard deviation	1.92 ns	2.57 ns	3.64 ns

Outlying measurements have no (0.429%) effect on estimated standard deviation.

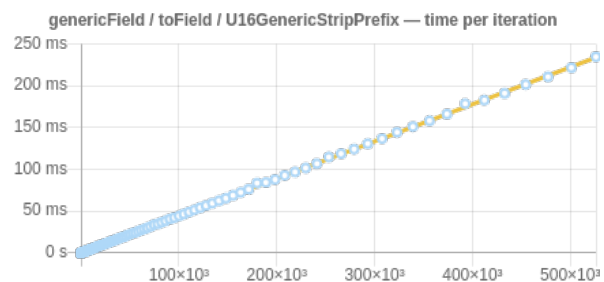
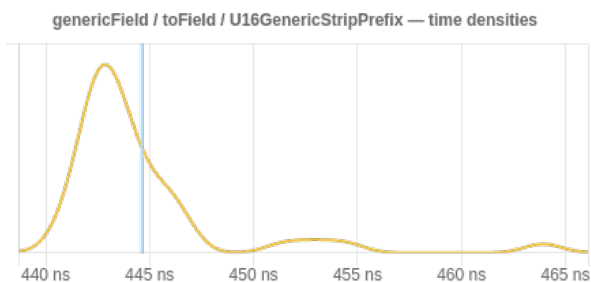
genericField / toField / U16Generic



	lower bound	estimate	upper bound
OLS regression	446 ns	448 ns	449 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	447 ns	448 ns	451 ns
Standard deviation	2.93 ns	6.17 ns	11.8 ns

Outlying measurements have a moderate (13.7%) effect on estimated standard deviation.

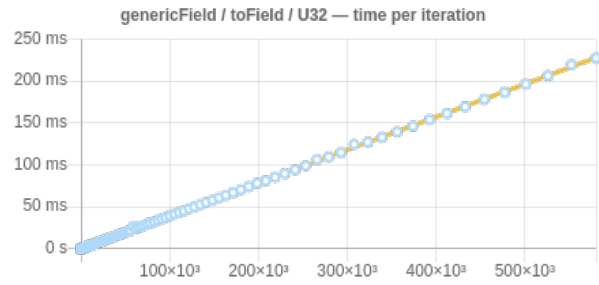
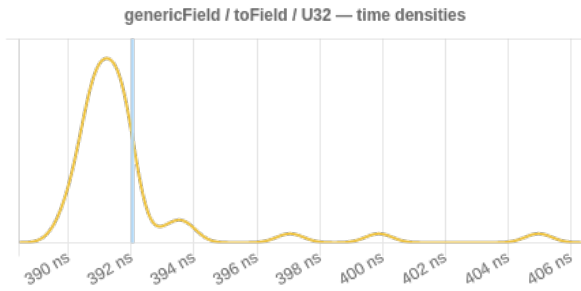
genericField / toField / U16GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	443 ns	444 ns	447 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	444 ns	445 ns	446 ns
Standard deviation	2.60 ns	4.16 ns	7.11 ns

Outlying measurements have a slight (6.63%) effect on estimated standard deviation.

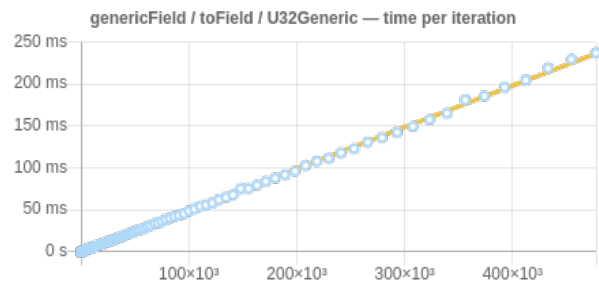
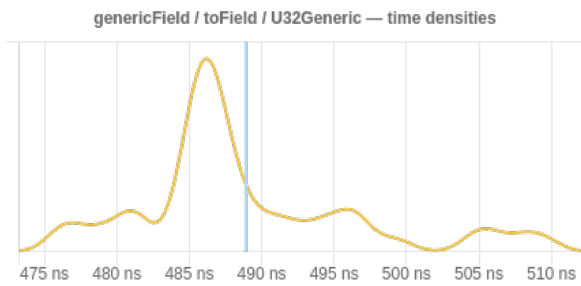
genericField / toField / U32



	lower bound	estimate	upper bound
OLS regression	392 ns	393 ns	394 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	391 ns	392 ns	394 ns
Standard deviation	1.34 ns	2.68 ns	5.11 ns

Outlying measurements have no (0.433%) effect on estimated standard deviation.

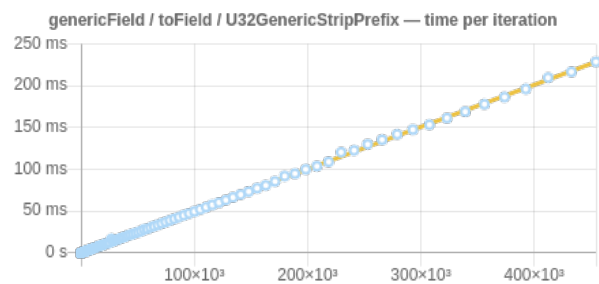
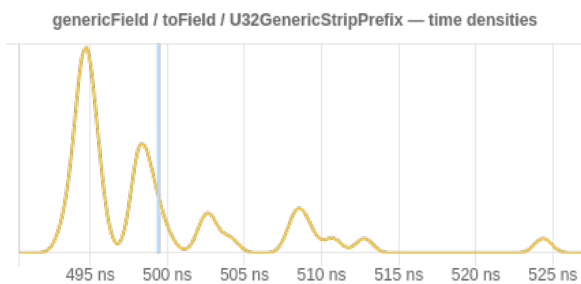
genericField / toField / U32Generic



	lower bound	estimate	upper bound
OLS regression	491 ns	495 ns	498 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	487 ns	489 ns	492 ns
Standard deviation	6.06 ns	7.72 ns	10.2 ns

Outlying measurements have a moderate (16.8%) effect on estimated standard deviation.

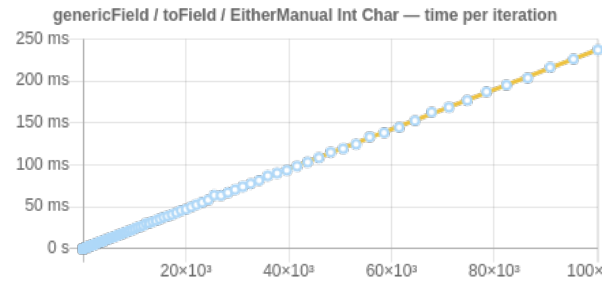
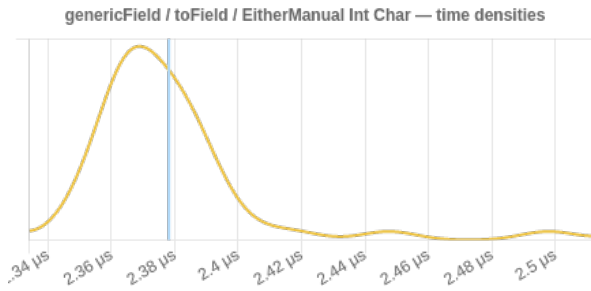
genericField / toField / U32GenericStripPrefix



	lower bound	estimate	upper bound
OLS regression	500 ns	502 ns	504 ns
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	498 ns	499 ns	502 ns
Standard deviation	4.96 ns	6.57 ns	9.62 ns

Outlying measurements have a moderate (12.2%) effect on estimated standard deviation.

genericField / toField / EitherManual Int Char

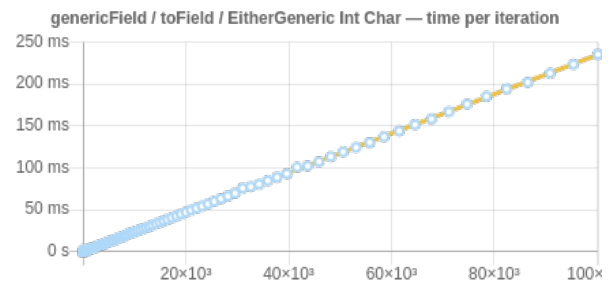
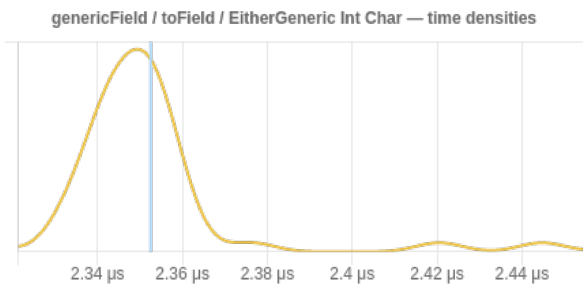


lower bound estimate upper bound

OLS regression	2.37 μs	2.37 μs	2.38 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.37 μs	2.38 μs	2.39 μs
Standard deviation	15.2 ns	25.4 ns	47.8 ns

Outlying measurements have a slight (7.31%) effect on estimated standard deviation.

genericField / toField / EitherGeneric Int Char

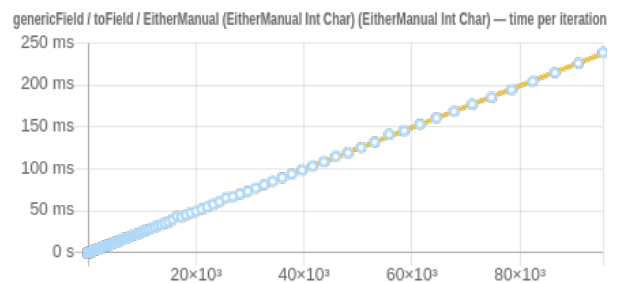
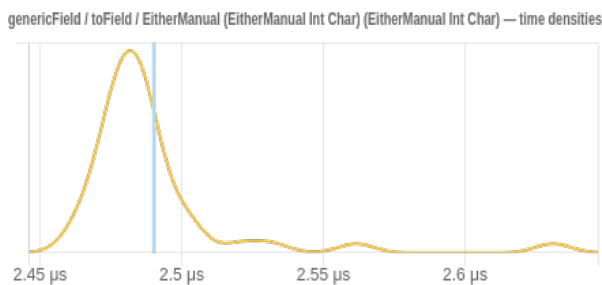


lower bound estimate upper bound

OLS regression	2.34 μs	2.35 μs	2.35 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.35 μs	2.35 μs	2.36 μs
Standard deviation	8.75 ns	19.8 ns	33.9 ns

Outlying measurements have no (0.513%) effect on estimated standard deviation.

genericField / toField / EitherManual (EitherManual Int Char) (EitherManual Int Char)



lower bound estimate upper bound

OLS regression	2.48 μs	2.49 μs	2.49 μs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.48 μs	2.49 μs	2.50 μs
Standard deviation	14.8 ns	28.0 ns	53.5 ns

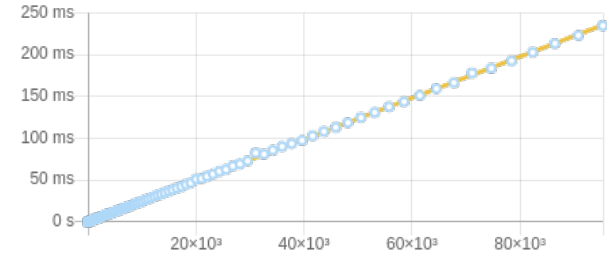
Outlying measurements have a slight (8.31%) effect on estimated standard deviation.

genericField / toField / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)

genericField / toField / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char) — time densities



genericField / toField / EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char) — time per iteration



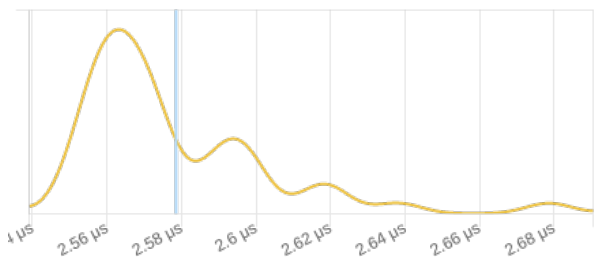
lower bound estimate upper bound

OLS regression	2.46 μ s	2.47 μ s	2.47 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.47 μ s	2.47 μ s	2.49 μ s
Standard deviation	17.4 ns	34.8 ns	63.9 ns

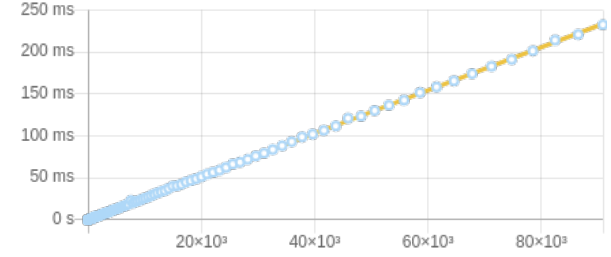
Outlying measurements have a moderate (12.3%) effect on estimated standard deviation.

genericField / toField / EitherManual (EitherManual Int Char) (EitherManual Int Char) (EitherManual (EitherManual Int Char) (EitherManual Int Char))

genericField / toField / EitherManual (EitherManual Int Char) (EitherManual Int Char) (EitherManual Int Char) — time densities



genericField / toField / EitherManual (EitherManual Int Char) (EitherManual Int Char) (EitherManual Int Char) — time per iteration



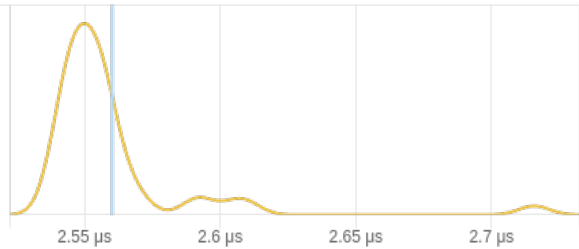
lower bound estimate upper bound

OLS regression	2.56 μ s	2.57 μ s	2.58 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.57 μ s	2.58 μ s	2.59 μ s
Standard deviation	19.1 ns	25.8 ns	43.8 ns

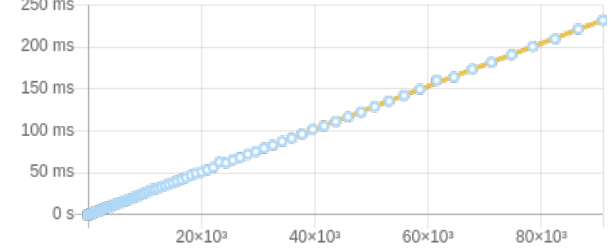
Outlying measurements have a slight (6.86%) effect on estimated standard deviation.

genericField / toField / EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))

genericField / toField / EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) - time density



genericField / toField / EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) - time per iteration

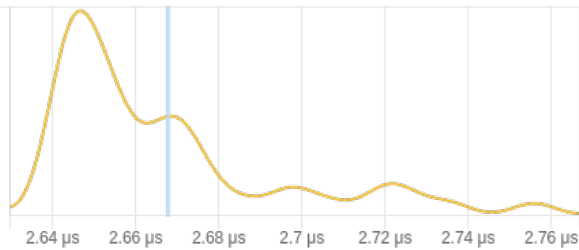


	lower bound	estimate	upper bound
OLS regression	2.55 μ s	2.55 μ s	2.56 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.55 μ s	2.56 μ s	2.58 μ s
Standard deviation	14.7 ns	29.0 ns	53.8 ns

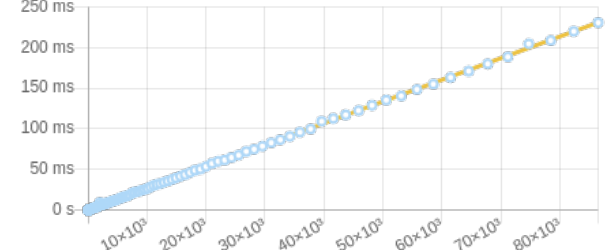
Outlying measurements have a slight (8.36%) effect on estimated standard deviation.

genericField / toField / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)))

genericField / toField / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char))) - time density



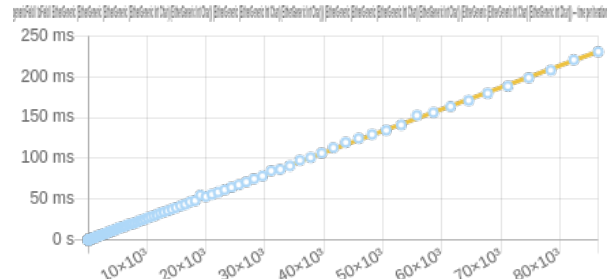
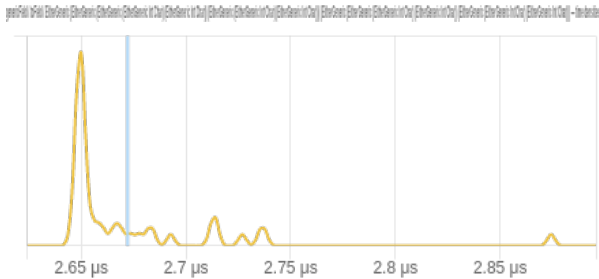
genericField / toField / EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual Int Char) (EitherManual Int Char)) (EitherManual (EitherManual (EitherManual Int Char) (EitherManual Int Char))) - time per iteration



	lower bound	estimate	upper bound
OLS regression	2.66 μ s	2.67 μ s	2.68 μ s
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.66 μ s	2.67 μ s	2.68 μ s
Standard deviation	21.6 ns	28.5 ns	37.1 ns

Outlying measurements have a slight (7.41%) effect on estimated standard deviation.

genericField / toField / EitherGeneric (EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char))) (EitherGeneric (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)) (EitherGeneric (EitherGeneric Int Char) (EitherGeneric Int Char)))



	lower bound	estimate	upper bound
OLS regression	2.66 µs	2.67 µs	2.68 µs
R ² goodness-of-fit	1.00	1.00	1.00
Mean execution time	2.66 µs	2.67 µs	2.69 µs
Standard deviation	24.4 ns	41.2 ns	77.6 ns

Outlying measurements have a moderate (14.4%) effect on estimated standard deviation.

understanding this report

In this report, each function benchmarked by criterion is assigned a section of its own.

- The chart on the left is a [kernel density estimate](#) (also known as a KDE) of time measurements. This graphs the probability of any given time measurement occurring. A spike indicates that a measurement of a particular time occurred; its height indicates how often that measurement was repeated.
- The chart on the right is the raw data from which the kernel density estimate is built. The x-axis indicates the number of loop iterations, while the y-axis shows measured execution time for the given number of loop iterations. The line behind the values is the linear regression estimate of execution time for a given number of iterations. Ideally, all measurements will be on (or very near) this line. The transparent area behind it shows the confidence interval for the execution time estimate.

Under the charts is a small table. The first two rows are the results of a linear regression run on the measurements displayed in the right-hand chart.

- *OLS regression* indicates the time estimated for a single loop iteration using an ordinary least-squares regression model. This number is more accurate than the *mean* estimate below it, as it more effectively eliminates measurement overhead and other constant factors.
- *R²; goodness-of-fit* is a measure of how accurately the linear regression model fits the observed measurements. If the measurements are not too noisy, R²; should lie between 0.99 and 1, indicating an excellent fit. If the number is below 0.99, something is confounding the accuracy of the linear model.
- *Mean execution time* and *standard deviation* are statistics calculated from execution time divided by number of iterations.

We use a statistical technique called the [bootstrap](#) to provide confidence intervals on our estimates. The bootstrap-derived upper and lower bounds on estimates let you see how accurate we believe those estimates to be.

A noisy benchmarking environment can cause some or many measurements to fall far from the mean. These outlying measurements can have a significant inflationary effect on the estimate of the standard deviation. We calculate and display an estimate of the extent to which the standard deviation has been inflated by outliers.

colophon

This report was created using the [criterion](#) benchmark execution and performance analysis tool.

Criterion is developed and maintained by [Bryan O'Sullivan](#).