Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
5 Constant magic uninitialized-lexical Magic	UninitializedLexical

6 Constant 0x0

16 Goto \rightarrow block 2

 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 1	
resumepoint 14 13 12 11 10 9 8	
7 OsrEntry	Pointer
8 Constant undefined	Undefined
9 OsrReturnValue ← OsrEntry#7	Value
10 Parameter THIS_SLOT	Value
11 Parameter 0	Value
12 OsrValue ← OsrEntry#7	Value
13 OsrValue ← OsrEntry#7	Value
14 OsrValue ← OsrEntry#7	Value
15 Start	
17 Goto \rightarrow block 2	

Block 2

resumepoint 24 23 22 21 20 19 18 18 Phi ← Constant#2, Constant#8 Undefined 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value 22 Phi ← Constant#6, OsrValue#12 Value 23 Phi ← Constant#2, OsrValue#13 Value 24 Phi ← Constant#2, OsrValue#14 Value 32 Goto \rightarrow block 3

Int32

Block 3 (loop header)

resumepoint 31 30 29 28 27 26 25 25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool

Block 4 (backedge)

37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

resumepoint 31 30 29 28 27 26 25	
38 Constant magic uninitialized-lexical	MagicUninitializedLexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole \leftarrow GuardShape#43, Elements#44, Constant#41, Constant#42	
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47	·
51 Constant 0x1	Int32
52 <u>GuardShape ← NewPlainObject#40</u>	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength \leftarrow Elements#53	Int32
55 BoundsCheck \leftarrow Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
58 <u>Unbox Phi#29 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
60 Add ← Unbox#58, Constant#59 [int32]	Int32

Block 5

resumepoint 31 30 29 28 27 26 25

./Benchmarkers/prop_access.js:2 - Prune Unused Branches movable, guard, in worklist, recovered on bailout

Block 0	re
resumepoint 2 2 2 1 0 2 2	7 Os
0 Parameter THIS_SLOT Value	8 C c
1 Parameter 0 Value	9 Os
2 Constant undefined Undefined	10 Pa
3 Start	11 Pa
4 CheckOverRecursed	12 Os
5 Constant magic uninitialized-lexical MagicUninitializedLexical	13 Os
6 Constant 0x0 Int32	14 Os
16 Goto → block 2	15 St
10 Goto / Block 2	17 G

	Block 1	
	resumepoint 14 13 12 11 10 9 8	_
7	OsrEntry	Pointer
8	Constant undefined	Undefined
9	OsrReturnValue ← OsrEntry#7	Value
10	Parameter THIS_SLOT	Value
11	Parameter 0	Value
12	OsrValue ← OsrEntry#7	Value
13	OsrValue ← OsrEntry#7	Value
14	OsrValue ← OsrEntry#7	Value
15	Start	
17	Goto → block 2	

Block 2

resumepoint 24 23 22 21 20 19 18 18 Phi ← Constant#2, Constant#8 Undefined 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value 22 Phi ← Constant#6, OsrValue#12 Value 23 Phi ← Constant#2, OsrValue#13 Value 24 Phi ← Constant#2, OsrValue#14 Value 32 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 31 30 29 28 27 26 25 25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool

Block 4 (backedge)

37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

resumepoint 31 30 29 28 27 26 25	
38 Constant magic uninitialized-lexical	MagicUninitializedLexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole \leftarrow GuardShape#43, Elements#44, Constant#41, Constant#42	
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47	'
51 Constant 0x1	Int32
52 GuardShape ← NewPlainObject#40	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength \leftarrow Elements#53	Int32
55 BoundsCheck ← Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
58 <u>Unbox Phi#29 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
60 Add ← Unbox#58, Constant#59 [int32]	Int32

 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 5

resumepoint 31 30 29 28 27 26 25

./Benchmarkers/prop_access.js:2 - Fold Empty Blocks

movable, quard, in worklist, recovered on bailout

	, 3	,
Block 0		resumepoint 14
resumepoint 2 2 2 1 0 2 2		7 OsrEntry
0 Parameter THIS_SLOT	Value	8 Constant undefin
1 Parameter 0	Value	9 OsrReturnValue
2 Constant undefined	Undefined	10 Parameter THIS
3 Start		11 Parameter 0
4 CheckOverRecursed		12 OsrValue ← OsrE
5 Constant magic uninitialized-lexical MagicUni	nitializedLexical	13 OsrValue ← OsrE
6 Constant 0x0	Int32	14 OsrValue ← OsrE
16 Goto → block 2		15 Start
		17 Goto → block 2
	•	

32 Goto \rightarrow block 3

Block 1	
resumepoint 14 13 12 11 10 9 8	
7 OsrEntry	Pointer
8 Constant undefined	Undefined
9 OsrReturnValue ← OsrEntry#7	Value
10 Parameter THIS_SLOT	Value
11 Parameter 0	Value
12 OsrValue ← OsrEntry#7	Value
13 OsrValue ← OsrEntry#7	Value
14 OsrValue ← OsrEntry#7	Value
15 Start	
17 Goto → block 2	

Block 2 resumepoint 24 23 22 21 20 19 18 18 Phi ← Constant#2, Constant#8 Undefined 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value Value 22 Phi ← Constant#6, OsrValue#12 23 Phi ← Constant#2, OsrValue#13 Value 24 Phi ← Constant#2, OsrValue#14 Value

Block 3 (loop header) resumepoint 31 30 29 28 27 26 25 25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool 37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge) resumepoint 31 30 29 28 27 26 25 38 Constant magic uninitialized-lexical MagicUninitializedLexical 39 Constant shape at 31bba156fc20 Shape 40 NewPlainObject ← Constant#39 Object 41 Constant 0x0 Int32 42 Constant string 31bba152d780 String 43 GuardShape ← NewPlainObject#40 Object 44 Elements ← GuardShape#43 Elements 45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42 46 Constant 0x1 Int32 47 Constant string 31bba152be60 String 48 GuardShape ← NewPlainObject#40 Object 49 Elements ← GuardShape#48 Elements 50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47 Int32 51 Constant 0x1 52 GuardShape ← NewPlainObject#40 Object 53 Elements ← GuardShape#52 Elements 54 InitializedLength \leftarrow Elements#53 Int32 55 BoundsCheck ← Constant#51, InitializedLength#54 Int32 56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54 Int32 57 LoadElement ← Elements#53, SpectreMaskIndex#56 Value 58 Unbox Phi#29 to Int32 (fallible) Int32 59 Constant 0x1 Int32 $60 \text{ Add} \leftarrow \text{Unbox} #58, \text{Constant} #59 [int 32]$ Int32 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 5
resumepoint 31 30 29 28 27 26 25
62 Return ← Phi#26

Block 0	resum
resumepoint 2 2 2 1 0 2 2	7 OsrEn
0 Parameter THIS SLOT Value	8 Consta
1 Parameter 0 Value	9 OsrRe
2 Constant undefined Undefined	10 Param
3 Start	11 Param
4 CheckOverRecursed	12 OsrVa
5 Constant magic uninitialized-lexical MagicUninitializedLexical	13 OsrVa
6 Constant 0x0 Int32	14 OsrVa
16 Goto → block 2	15 Start
	☐ 17 Goto -

Block 1	
resumepoint 14 13 12 11 10 9 8	
7 OsrEntry	Pointer
8 Constant undefined	Undefined
9 OsrReturnValue ← OsrEntry#7	Value
10 Parameter THIS_SLOT	Value
11 Parameter 0	Value
12 OsrValue ← OsrEntry#7	Value
13 OsrValue ← OsrEntry#7	Value
14 OsrValue ← OsrEntry#7	Value
15 Start	
17 Goto → block 2	

Block 2 resumepoint 24 23 22 21 20 19 18

18 Phi ← Constant#2, Constant#8 Undefined 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value 22 Phi ← Constant#6, OsrValue#12 Value 23 Phi ← Constant#2, OsrValue#13 Value 24 Phi ← Constant#2, OsrValue#14 Value

32 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 31 30 29 28 27 26 25

25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool

37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge)	
resumepoint 31 30 29 28 27 26 25	
38 Constant magic uninitialized-lexical	MagicUninitializedLexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole \leftarrow GuardShape#43, Elements#44, Constant#41, Constant#42	
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole \leftarrow GuardShape#48, Elements#49, Constant#46, Constant#47	,
51 Constant 0x1	Int32
52 GuardShape ← NewPlainObject#40	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength \leftarrow Elements#53	Int32
55 BoundsCheck \leftarrow Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
58 <u>Unbox Phi#29 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
$60 \text{ Add} \leftarrow \text{Unbox} #58, \text{Constant} #59 [int32]$	Int32

 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 5 resumepoint 31 30 29 28 27 26 25 62 Return ← Phi#26

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
5 Constant magic uninitialized-lexical MagicUn	initializedLexical
6 Constant 0x0	Int32
16 Goto → block 2	

 $60 \text{ Add} \leftarrow \text{Unbox} #58, \text{Constant} #59 [int 32]$

 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 1	
resumepoint 14 13 12 11 10 9 8	
7 OsrEntry	Pointer
8 Constant undefined	Undefined
9 OsrReturnValue ← OsrEntry#7	Value
10 Parameter THIS_SLOT	Value
11 Parameter 0	Value
12 OsrValue ← OsrEntry#7	Value
13 OsrValue ← OsrEntry#7	Value
14 OsrValue ← OsrEntry#7	Value
15 Start	
17 Goto → block 2	

Value

Bool

Block 2 resumepoint 24 23 22 21 20 19 18 18 Phi ← Constant#2, Constant#8 10 Phi ← Constant#2, OsrPoturnValues

24 Phi ← Constant#2, OsrValue#14

18 Phi ← Constant#2, Constant#8 Undefined 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value 22 Phi ← Constant#6, OsrValue#12 Value 23 Phi ← Constant#2, OsrValue#13 Value

32 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 31 30 29 28 27 26 25 25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32

Block 4 (backedge)

36 Compare ← Unbox#34, Unbox#35 Lt

37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

resumepoint 31 30 29 28 27 26 25 38 Constant magic uninitialized-lexical MagicUninitializedLexical 39 Constant shape at 31bba156fc20 Shape 40 NewPlainObject ← Constant#39 Object 41 Constant 0x0 Int32 42 Constant string 31bba152d780 String 43 GuardShape ← NewPlainObject#40 Object 44 Elements ← GuardShape#43 Elements 45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42 46 Constant 0x1 Int32 47 Constant string 31bba152be60 String 48 GuardShape ← NewPlainObject#40 Object 49 Elements ← GuardShape#48 Elements 50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47 Int32 51 Constant 0x1 52 GuardShape ← NewPlainObject#40 Object 53 Elements ← GuardShape#52 Elements 54 InitializedLength \leftarrow Elements#53 Int32 55 BoundsCheck ← Constant#51, InitializedLength#54 Int32 56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54 Int32 57 LoadElement ← Elements#53, SpectreMaskIndex#56 Value 58 Unbox Phi#29 to Int32 (fallible) Int32 59 Constant 0x1 Int32

Block 5
resumepoint 31 30 29 28 27 26 25
62 Return ← Phi#26

Int32

./Benchmarkers/prop_access.js:2 - Split Critical Edges

movable, quard, in worklist, recovered on bailout

Pointer

Value Value Value Value Value Value

Block 5

62 Return ← Phi#26

resumepoint 31 30 29 28 27 26 25

Undefined

	movabio, gas	ii wormiou, recevered ou banede
		Block 1
Block	0	resumepoint 14 13 12 11 10 9 8
resumepoint 2 2 2 1 0 2 2		7 OsrEntry
<pre>0 Parameter THIS_SLOT</pre>	Value	8 Constant undefined
1 Parameter 0	Value	9 OsrReturnValue ← OsrEntry#7
2 Constant undefined	Undefined	10 Parameter THIS_SLOT
3 Start		11 Parameter 0
4 CheckOverRecursed		12 OsrValue ← OsrEntry#7
5 Constant magic uninitialized-lex	ical MagicUninitializedLexical	13 OsrValue ← OsrEntry#7
6 Constant 0x0	Int32	14 OsrValue ← OsrEntry#7
16 Goto \rightarrow block 2		15 Start
		17 Goto \rightarrow block 2
	Block 2	
	resumepoint 24 23 22 21 20	0 19 18

Block 2	
resumepoint 24 23 22 21 20 19 18	
18 Phi ← Constant#2, Constant#8	Undefined
19 Phi ← Constant#2, OsrReturnValue#9	Value
20 Phi ← Parameter#0, Parameter#10	Value
21 Phi ← Parameter#1, Parameter#11	Value
22 Phi ← Constant#6, OsrValue#12	Value
23 Phi ← Constant#2, OsrValue#13	Value
24 Phi ← Constant#2, OsrValue#14	Value
32 Goto → block 3	

Block 3 (loop header) resumepoint 31 30 29 28 27 26 25 25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool $37 \text{ Test} \leftarrow \text{Compare} #36 \rightarrow \text{block } 4, \text{ block } 5$

Block 4 (backedge) resumepoint 31 30 29 28 27 26 25 38 Constant magic uninitialized-lexical Magic Uninitialized Lexical39 Constant shape at 31bba156fc20 Shape 40 NewPlainObject ← Constant#39 Object 41 Constant 0x0 Int32 42 Constant string 31bba152d780 String 43 GuardShape ← NewPlainObject#40 Object 44 Elements ← GuardShape#43 Elements 45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42 Int32 46 Constant 0x1 47 Constant string 31bba152be60 String 48 GuardShape ← NewPlainObject#40 Object 49 Elements ← GuardShape#48 Elements 50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47 51 Constant 0x1 Int32 $52 GuardShape \leftarrow NewPlainObject#40$ Object 53 Elements \leftarrow GuardShape#52 Elements 54 InitializedLength \leftarrow Elements#53 Int32 55 BoundsCheck ← Constant#51, InitializedLength#54 Int32 56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54 Int32 57 LoadElement ← Elements#53, SpectreMaskIndex#56 Value 58 Unbox Phi#29 to Int32 (fallible) Int32 59 Constant 0x1 Int32 Int32 60 Add ← Unbox#58, Constant#59 [int32]

61 Goto → block 3

$./Benchmarkers/prop_access.js: 2-Renumber\ Blocks$

movable, guard, in worklist, recovered on bailout

Block 0	resumepoint 14
resumepoint 2 2 2 1 0 2 2	7 OsrEntry
0 Parameter THIS SLOT Value	8 Constant under
1 Parameter 0 Value	9 OsrReturnValue
2 Constant undefined Undefined	10 Parameter THIS
3 Start	11 Parameter 0
4 CheckOverRecursed	12 OsrValue ← Osr
5 Constant magic uninitialized-lexical MagicUninitializedLexical	13 OsrValue ← Osi
6 Constant 0x0 Int32	14 OsrValue ← Osr
$16 \text{ Goto} \rightarrow \text{block } 2$	15 Start
	17 Goto \rightarrow block 2

Block 1			
	resumepoint 14 13 12 11 10 9 8	_	
7	OsrEntry	Pointer	
8	Constant undefined	Undefined	
9	OsrReturnValue ← OsrEntry#7	Value	
10	Parameter THIS_SLOT	Value	
11	Parameter 0	Value	
12	OsrValue ← OsrEntry#7	Value	
13	OsrValue ← OsrEntry#7	Value	
14	OsrValue ← OsrEntry#7	Value	
15	Start		
17	Goto → block 2		
	/		

Value

Block 2 resumepoint 24 23 22 21 20 19 18 18 Phi ← Constant#2, Constant#8 Undefined 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value 22 Phi ← Constant#6, OsrValue#12 Value 23 Phi ← Constant#2, OsrValue#13 Value

24 Phi ← Constant#2, OsrValue#14

32 Goto \rightarrow block 3

Block 3 (loop header) resumepoint 31 30 29 28 27 26 25 25 Phi ← Phi#18, Phi#18 Value 26 Phi ← Phi#19, Phi#19 Value 27 Phi ← Phi#20, Phi#20 Value 28 Phi ← Phi#21, Phi#21 Value 29 Phi ← Phi#22, Add#60 Value 30 Phi ← Phi#23, NewPlainObject#40 Value 31 Phi ← Phi#24, LoadElement#57 Value 33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#28 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool 37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge) resumepoint 31 30 29 28 27 26 25 38 Constant magic uninitialized-lexical MagicUninitializedLexical 39 Constant shape at 31bba156fc20 Shape 40 NewPlainObject ← Constant#39 Object 41 Constant 0x0 Int32 42 Constant string 31bba152d780 String 43 GuardShape ← NewPlainObject#40 Object 44 Elements ← GuardShape#43 Elements 45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42 46 Constant 0x1 Int32 47 Constant string 31bba152be60 String 48 GuardShape ← NewPlainObject#40 Object 49 Elements ← GuardShape#48 Elements 50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47 Int32 51 Constant 0x1 52 GuardShape ← NewPlainObject#40 Object 53 Elements ← GuardShape#52 Elements 54 InitializedLength \leftarrow Elements#53 Int32 55 BoundsCheck ← Constant#51, InitializedLength#54 Int32 56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54 Int32 57 LoadElement ← Elements#53, SpectreMaskIndex#56 Value 58 Unbox Phi#29 to Int32 (fallible) Int32 59 Constant 0x1 Int32 $60 \text{ Add} \leftarrow \text{Unbox} #58, \text{Constant} #59 [int 32]$ Int32

 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 5
resumepoint 31 30 29 28 27 26 25
62 Return ← Phi#26

./Benchmarkers/prop_access.js:2 - Eliminate phis movable, guard, in worklist, recovered on bailout

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT Value	
1 Parameter 0 Value	
2 Constant undefined Undefined	
3 Start	
4 CheckOverRecursed	
5 Constant magic uninitialized-lexical MagicUninitializedLexical	
6 Constant 0x0 Int32	
16 Goto → block 2	

 $61 \text{ Goto} \rightarrow \text{block } 3$

Block 1	
resumepoint 14 13 12 11 10 9 8	
7 OsrEntry	Pointer
8 Constant undefined	Undefined
9 OsrReturnValue ← OsrEntry#7	Value
10 Parameter THIS_SLOT	Value
11 Parameter 0	Value
12 OsrValue ← OsrEntry#7	Value
13 OsrValue ← OsrEntry#7	Value
14 OsrValue ← OsrEntry#7	Value
15 Start	
17 Goto → block 2	

	Block 2	
	resumepoint 66 66 22 21 20 19 66	
	19 Phi ← Constant#2, OsrReturnValue#9	Value
	20 Phi ← Parameter#0, Parameter#10	Value
	21 Phi ← Parameter#1, Parameter#11	Value
	22 Phi ← Constant#6, OsrValue#12	Value
	66 Constant magic optimized-out	Magic Optimized Out
	32 Goto → block 3	
- 1		

Block 3 (loop header) resumepoint 65 65 29 21 20 19 65 29 Phi ← Phi#22, Add#60 Value 65 Constant magic optimized-out Magic Optimized Out33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#21 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool 37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge)

resumepoint 64 64 29 21 20 19 64	
64 Constant magic optimized-out	MagicOptimizedOut
38 Constant magic uninitialized-lexical	MagicUninitializedLexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42	2
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47	'
51 Constant 0x1	Int32
52 GuardShape ← NewPlainObject#40	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength ← Elements#53	Int32
55 BoundsCheck \leftarrow Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex ← BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
58 <u>Unbox Phi#29 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
$60 \text{ Add} \leftarrow \text{Unbox} #58, \text{Constant} #59 [int32]$	Int32

Block 5

resumepoint 63 63 29 21 20 19 63

63 Constant magic optimized-out

Magic Optimized Out

./Benchmarkers/prop_access.js:2 - Iterator Indices movable, guard, in worklist, recovered on bailout

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT Val	ue
1 Parameter 0 Val	ue
2 Constant undefined Undefin	ed
3 Start	
4 CheckOverRecursed	
5 Constant magic uninitialized-lexical MagicUninitializedLexic	al
6 Constant 0x0 Int	32
16 Goto → block 2	

61 Goto → block 3

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⁷ alue
alue '

Block 2	
resumepoint 66 66 22 21 20 19 66	
19 Phi ← Constant#2, OsrReturnValue#9	Value
20 Phi ← Parameter#0, Parameter#10	Value
21 Phi ← Parameter#1, Parameter#11	Value
22 Phi ← Constant#6, OsrValue#12	Value
66 Constant magic optimized-out	Magic Optimized Out
32 Goto → block 3	

Block 3 (loop header) resumepoint 65 65 29 21 20 19 65 29 Phi ← Phi#22, Add#60 Value 65 Constant magic optimized-out Magic Optimized Out33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#21 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool 37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge)

resumepoint 64 64 29 21 20 19 64	
64 Constant magic optimized-out	MagicOptimizedOut
38 Constant magic uninitialized-lexical	MagicUninitializedLexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42	
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47	
51 Constant 0x1	Int32
52 GuardShape ← NewPlainObject#40	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength ← Elements#53	Int32
55 BoundsCheck \leftarrow Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex ← BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
58 <u>Unbox Phi#29 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
60 Add ← Unbox#58, Constant#59 [int32]	Int32

Block 5

resumepoint 63 63 29 21 20 19 63

63 Constant magic optimized-out

Magic Optimized Out

./Benchmarkers/prop_access.js:2 - Scalar Replacement movable, guard, in worklist, recovered on bailout

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined Unde	fined
3 Start	
4 CheckOverRecursed	
5 Constant magic uninitialized-lexical MagicUninitializedLe	exical
6 Constant 0x0	Int32
$16 \text{ Goto} \rightarrow \text{block } 2$	

 $61 \text{ Goto} \rightarrow \text{block } 3$

	Block 1	
	resumepoint 14 13 12 11 10 9 8	
7	OsrEntry	Pointer
8	Constant undefined	Undefined
9	OsrReturnValue ← OsrEntry#7	Value
10	Parameter THIS_SLOT	Value
11	Parameter 0	Value
12	OsrValue ← OsrEntry#7	Value
13	OsrValue ← OsrEntry#7	Value
14	OsrValue ← OsrEntry#7	Value
15	Start	
17	Goto → block 2	

Block 2 resumepoint 66 66 22 21 20 19 66 19 Phi ← Constant#2, OsrReturnValue#9 Value 20 Phi ← Parameter#0, Parameter#10 Value 21 Phi ← Parameter#1, Parameter#11 Value 22 Phi ← Constant#6, OsrValue#12 Value 66 Constant magic optimized-out Magic Optimized Out32 Goto \rightarrow block 3

Block 3 (loop header) resumepoint 65 65 29 21 20 19 65 29 Phi ← Phi#22, Add#60 Value 65 Constant magic optimized-out Magic Optimized Out33 InterruptCheck 34 Unbox Phi#29 to Int32 (fallible) Int32 35 Unbox Phi#21 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool 37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge)

resumepoint 64 64 29 21 20 19 64	
64 Constant magic optimized-out	MagicOptimizedOut
38 Constant magic uninitialized-lexical	MagicUninitializedLexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole ← GuardShape#43, Elements#44, Constant#41, Constant#42	
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole ← GuardShape#48, Elements#49, Constant#46, Constant#47	'
51 Constant 0x1	Int32
52 GuardShape ← NewPlainObject#40	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength ← Elements#53	Int32
55 BoundsCheck \leftarrow Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
58 <u>Unbox Phi#29 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
60 Add ← Unbox#58, Constant#59 [int32]	Int32

Block 5

resumepoint 63 63 29 21 20 19 63

63 Constant magic optimized-out

Magic Optimized Out

./Benchmarkers/prop_access.js:2 - Apply types movable, guard, in worklist, recovered on bailout

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
5 Constant magic uninitialized-lexical Mag	gicUninitializedLexical
6 Constant 0x0	Int32
67 Box ← Constant#2	Value
16 Goto → block 2	

Block 1	
resumepoint 14 13 12 11 10 9 8	
7 OsrEntry	Pointer
8 Constant undefined	Undefined
9 OsrReturnValue ← OsrEntry#7	Value
10 Parameter THIS_SLOT	Value
11 Parameter 0	Value
12 OsrValue ← OsrEntry#7	Value
13 OsrValue ← OsrEntry#7	Value
14 OsrValue ← OsrEntry#7	Value
15 Start	
68 <u>Unbox OsrValue#12 to Int32 (fallible)</u>	Int32
17 Goto → block 2	

Block 2	
resumepoint 66 66 22 21 20 19 66	_
19 Phi ← Box#67, OsrReturnValue#9	Value
20 Phi ← Parameter#0, Parameter#10	Value
21 Phi ← Parameter#1, Parameter#11	Value
22 Phi ← Constant#6, Unbox#68	Int32
66 Constant magic optimized-out	Magic Optimized Out
32 Goto → block 3	

Block 3 (loop header) resumepoint 65 65 29 21 20 19 65 29 Phi ← Phi#22, Add#60 Int32 Magic Optimized Out65 Constant magic optimized-out 33 InterruptCheck 69 Box ← Phi#29 Value 34 Unbox Box#69 to Int32 (fallible) Int32 35 Unbox Phi#21 to Int32 (fallible) Int32 36 Compare ← Unbox#34, Unbox#35 Lt Bool 37 Test \leftarrow Compare#36 \rightarrow block 4, block 5

Block 4 (backedge)	
resumepoint 64 64 29 21 20 19 64	
64 Constant magic optimized-out	MagicOptimizedOut
38 Constant magic uninitialized-lexical	Magic Uninitial ized Lexical
39 Constant shape at 31bba156fc20	Shape
40 NewPlainObject ← Constant#39	Object
41 Constant 0x0	Int32
42 Constant string 31bba152d780	String
43 GuardShape ← NewPlainObject#40	Object
44 Elements ← GuardShape#43	Elements
45 StoreElementHole \leftarrow GuardShape#43, Elements#44, Constant#41, Constant#4	2
46 Constant 0x1	Int32
47 Constant string 31bba152be60	String
48 GuardShape ← NewPlainObject#40	Object
49 Elements ← GuardShape#48	Elements
50 StoreElementHole \leftarrow GuardShape#48, Elements#49, Constant#46, Constant#4	7
51 Constant 0x1	Int32
52 GuardShape ← NewPlainObject#40	Object
53 Elements ← GuardShape#52	Elements
54 InitializedLength \leftarrow Elements#53	Int32
55 BoundsCheck \leftarrow Constant#51, InitializedLength#54	Int32
56 SpectreMaskIndex \leftarrow BoundsCheck#55, InitializedLength#54	Int32
57 LoadElement ← Elements#53, SpectreMaskIndex#56	Value
70 Box ← Phi#29	Value
58 <u>Unbox Box#70 to Int32 (fallible)</u>	Int32
59 Constant 0x1	Int32
60 Add ← Unbox#58, Constant#59 [int32]	Int32
61 Goto → block 3	

Block 5 resumepoint 63 63 29 21 20 19 63 63 Constant magic optimized-out MagicOptimizedOut 62 Return ← Phi#19

		Bloc	k 1
В	lock 0	resumepoint 16 15 14 1	.3 12 11 10
resumepoint 2 2 2 1 0 2 2		9 OsrEntry	Point
Parameter THIS_SLOT	Value	10 Constant undefined	Undefin
Parameter 0	Value	11 OsrReturnValue ← OsrE	J
Constant undefined	Undefined	12 Parameter THIS_SLOT	Val
Start		13 Parameter 0	Val
CheckOverRecursed		14 OsrValue ← OsrEntry#9	
3	d-lexical MagicUninitializedLexical	15 OsrValue ← OsrEntry#9	
Constant 0x0	Int32	16 OsrValue ← OsrEntry#9) Val
Box ← Constant#2	Value	17 Start	T + 22 (C 11:1 1) T +
Goto → block 2		18 <u>Unbox OsrValue#14 to</u>	<u>Int32 (fallible)</u> Int
		19 Goto → block 2	
	Block 2	2	
	resumepoint 24 24 23 22 21 2	20 24	
	20 Phi ← Box#7, OsrReturnValue	e#11 Value	
	21 Phi ← Parameter#0, Paramet	er#12 Value	
	22 Phi ← Parameter#1, Paramet	er#13 Value	
	23 Phi ← Constant#6, Unbox#18	Int32	
	24 Constant magic optimized-out	t MagicOptimizedOut	
	25 Goto → block 3		
	_		
	Block 3 (loop	hoador)]
	resumepoint 27 27 26 22 21 20	·	
	26 Phi ← Phi#23, Add#58	Int32	
	27 Constant magic optimized-out	MagicOptimizedOut	
	28 InterruptCheck	MagicOptimizedOut	
	29 Box ← Phi#26	Value	
	30 Unbox Box #29 to Int32 (fallible		
	31 Unbox Phi#22 to Int32 (fallible		
	$32 \text{ Compare} \leftarrow \text{Unbox} #30, \text{Unbox}$		
	33 Test \leftarrow Compare#32 \rightarrow block 4,		
	33 Test ← Compare#32 → block 4,	DIOCK 5	
	│ ↑		
	1		\
	$\int_{-\infty}^{1}$		0
	Block 4 (backed	ne)	0
resumenciat 3/ 3/ 26	Block 4 (backed	ge)	0
resumepoint 34 34 26	22 21 20 34		
34 Constant magic optim	ized-out		MagicOptimizedOut
34 Constant magic optim 35 Constant magic uninit	22 21 20 34 lized-out cialized-lexical		MagicOptimizedOut UninitializedLexical
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k	ized-out cialized-lexical oba156fc20		MagicOptimizedOut UninitializedLexical Shape
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con	ized-out cialized-lexical oba156fc20		MagicOptimizedOut UninitializedLexical Shape Object
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0	ized-out cialized-lexical oba156fc20 nstant#36		MagicOptimizedOut UninitializedLexical Shape Object Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba	ized-out cialized-lexical oba156fc20 nstant#36		MagicOptimizedOut UninitializedLexical Shape Object Int32 String
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl	ized-out cialized-lexical oba156fc20 nstant#36		MagicOptimizedOut UninitializedLexical Shape Object Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37		MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShape	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37		MagicOptimizedOut UninitializedLexical Shape Object Int32 String
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShape memory 33	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlander memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1	ized-out cialized-lexical cba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardSha memory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardSha memory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPlanemory 17	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPlanemory 17 46 Elements ← GuardShape	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String
34 Constant magic optime 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPlanemory 17 46 Elements ← GuardShamemory 42	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object
34 Constant magic optime 35 Constant magic uninite 36 Constant shape at 31k 37 NewPlainObject ← Constant 0x0 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPlanemory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardSha memory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardSha memory 42 47 StoreElementHole ← 0 48 Constant 0x1	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardSha memory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardSha memory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements
34 Constant magic optime 35 Constant magic uninite 36 Constant shape at 31h 37 NewPlainObject ← Constant 0x0 38 Constant 0x0 39 Constant string 31bbat 40 GuardShape ← NewPlamemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bbat 45 GuardShape ← NewPlamemory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPlamemory 17	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Object
34 Constant magic optime 35 Constant magic uninite 36 Constant shape at 31k 37 NewPlainObject ← Constant 0x0 38 Constant string 31bbe 40 GuardShape ← NewPlanemory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bbe 45 GuardShape ← NewPlanemory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPlanemory 17 50 Elements ← GuardShape 35 GuardShape ← NewPlanemory 17 50 Elements ← GuardShape 36 Constant 0x1 37 NewPlainObject ← Constant 0x1 38 Constant 0x1 49 GuardShape ← NewPlanemory 17 50 Elements ← GuardShape	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 String Object Elements
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardSha memory 33 42 StoreElementHole ← 0 43 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardSha memory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardSha memory 47 51 InitializedLength ← El	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Object
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47 51 InitializedLength ← Elementy 47	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49 dements#50	Magic	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 String Object Elements Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31h 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardSha memory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardSha memory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardSha memory 47 51 InitializedLength ← El memory 47 52 BoundsCheck ← Const	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49 dements#50 tant#48, InitializedLength#51	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Int32 Int32 Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShape memory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShape memory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShape memory 47 51 InitializedLength ← Elementy 47 52 BoundsCheck ← Constant 53 SpectreMaskIndex ← 15 53 SpectreMaskIndex ← 15	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#45 GuardShape#45, Ilements#46, Cons ainObject#37 ape#45 bements#50 tant#48, InitializedLength#51 BoundsCheck#52, InitializedLength#	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Int32 Int32 Int32 Int32 Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47 51 InitializedLength ← Elementy 47 52 BoundsCheck ← Constant 53 SpectreMaskIndex ← 15 54 LoadElement ← Elemente	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49 dements#50 tant#48, InitializedLength#51	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Int32 Int32 Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47 51 InitializedLength ← Elementy 47 52 BoundsCheck ← Const 53 SpectreMaskIndex ← 1 54 LoadElement ← Elementy 47	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#45 GuardShape#45, Ilements#46, Cons ainObject#37 ape#45 bements#50 tant#48, InitializedLength#51 BoundsCheck#52, InitializedLength#	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Int32 Int32 Int32 Int32 Value
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47 51 InitializedLength ← Elementy 47 52 BoundsCheck ← Const 53 SpectreMaskIndex ← 15 54 LoadElement ← Elementy 47 55 Box ← Phi#26	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49 dements#50 tant#48, InitializedLength#51 BoundsCheck#52, InitializedLength#ents#50, SpectreMaskIndex#53	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Value Value
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47 51 InitializedLength ← Elementy 47 52 BoundsCheck ← Const 53 SpectreMaskIndex ← 15 54 LoadElement ← Elementy 47 55 Box ← Phi#26 56 Unbox Box#55 to Int3	ized-out cialized-lexical oba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49 dements#50 tant#48, InitializedLength#51 BoundsCheck#52, InitializedLength#ents#50, SpectreMaskIndex#53	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Value Value Int32
34 Constant magic optim 35 Constant magic uninit 36 Constant shape at 31k 37 NewPlainObject ← Con 38 Constant 0x0 39 Constant string 31bba 40 GuardShape ← NewPl memory 17 41 Elements ← GuardShamemory 33 42 StoreElementHole ← 0 43 Constant 0x1 44 Constant string 31bba 45 GuardShape ← NewPl memory 17 46 Elements ← GuardShamemory 42 47 StoreElementHole ← 0 48 Constant 0x1 49 GuardShape ← NewPl memory 17 50 Elements ← GuardShamemory 47 51 InitializedLength ← Elementy 47 52 BoundsCheck ← Const 53 SpectreMaskIndex ← 15 54 LoadElement ← Elementy 47 55 Box ← Phi#26	ized-out cialized-lexical cba156fc20 nstant#36 a152d780 ainObject#37 ape#40 GuardShape#40, Elements#41, Cons a152be60 ainObject#37 ape#45 GuardShape#45, Elements#46, Cons ainObject#37 ape#49 dements#50 tant#48, InitializedLength#51 BoundsCheck#52, InitializedLength#ents#50, SpectreMaskIndex#53 B2 (fallible)	Magic tant#38, Constant#39 tant#43, Constant#44	MagicOptimizedOut UninitializedLexical Shape Object Int32 String Object Elements Int32 String Object Elements Int32 Int32 Int32 Int32 Value Value

Block 5
resumepoint 60 60 26 22 21 20 60
60 Constant magic optimized-out
61 Return ← Phi#20

Block 5
MagicOptimizedOut

Int32 Value

Value

Int32

Int32

Int32

		Block 1	
	Block 0	resumepoint 16 15 14 13 1	2 11 10
resumepoint 2 2 2 1 0 2 2		9 OsrEntry	Pointe
arameter THIS_SLOT	Value	10 Constant undefined	Undefine
arameter 0 Constant undefined	Value Undefined	11 OsrReturnValue ← OsrEntry 12 Parameter THIS SLOT	y#9 Value Value
tart	Ondenned	13 Parameter 0	Value
CheckOverRecursed		14 OsrValue ← OsrEntry#9	Value
3	ed-lexical MagicUninitializedLexical	15 OsrValue ← OsrEntry#9	Value
Constant 0x0 Box ← Constant#2	Int32 Value	16 OsrValue ← OsrEntry#9 17 Start	Value
$Soto \rightarrow block 2$	value	18 Unbox OsrValue#14 to Int3	32 (fallible) Int32
		19 Goto → block 2	
	Block 2		
	resumepoint 24 24 23 22 21 2 20 Phi ← Box#7, OsrReturnValue		
	21 Phi ← Parameter#0, Paramet		
	22 Phi ← Parameter#1, Paramet	er#13 Value	
	23 Phi ← Constant#6, Unbox#18		
	24 Constant magic optimized-ou 25 Goto → block 3	t MagicOptimizedOut	
	25 Goto 7 block 5		
	Block 3 (loop	header)	
	resumepoint 27 27 26 22 21 20		
	26 Phi ← Phi#23, Add#58 27 Constant magic optimized-out	Int32 MagicOptimizedOut	
	28 InterruptCheck	1-lagio-ptimizoa-at	
	29 Box ← Phi#26	Value	
	30 Unbox Box#29 to Int32 (fallibl		
	31 <u>Unbox Phi#22 to Int32 (fallible</u> 32 Compare ← Unbox#30, Unbox		
	$33 \text{ Test} \leftarrow \text{Compare} #32 \rightarrow \text{block } 4,$	-	
	$\int_{-\infty}^{\infty}$		0
	Block 4 (backed	ae)	
resumepoint 34 34 2		9 - /	
34 Constant magic optir			gicOptimizedOut
35 Constant magic uning		MagicUni	nitializedLexical
36 Constant shape at 31 37 NewPlainObject ← Co			Shape Object
38 Constant 0x0			Int32
39 Constant string 31bb			String
40 GuardShape ← NewP	<u> PlainObject#37</u>		Object
memory 17 41 Elements ← GuardSh	ane#40		Elements
memory 33	apon 10		FIGHIOIIG
5	GuardShape#40, Elements#41, Cons	tant#38, Constant#39	
43 Constant 0x1	1501 00		Int32
44 Constant string 31bb 45 GuardShape ← NewP			String Object
memory 17			Object
46 Elements ← GuardSh	ape#45		Elements
memory 42			
	GuardShape#45, Elements#46, Cons	tant#43, Constant#44	In+22
48 Constant 0x1 49 GuardShape ← NewP	lainObiect#37		Int32 ' Object
memory 17			
50 Elements ← GuardSh	ape#49		Elements
memory 47	21		T :00
51 InitializedLength ← E memory 47	Elements#50		Int32
5	stant#48. InitializedLength#51		Int32
JZ Dodingschicht Con-			·

53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53

memory 47 55 Box ← Phi#26

57 Constant 0x1

59 Goto → block 3

56 Unbox Box#55 to Int32 (fallible)

58 Add \leftarrow Unbox#56, Constant#57 [int32]

Block 5 resumepoint 60 60 26 22 21 20 60 60 Constant magic optimized-out Magic Optimized Out61 Return ← Phi#20

./Benchmarkers/prop_access.js:2 - GVN movable, guard, in worklist, recovered on bailout

Block 1

Block 0 resumepoint 2 2 2 1 0 2 2 0 Parameter THIS_SLOT Value 1 Parameter 0 Value 2 Constant undefined Undefined 3 Start 4 CheckOverRecursed 6 Constant 0x0 Int32	resumepoint 16 15 14 13 12 11 10 9 OsrEntry Pointer 10 Constant undefined 11 OsrReturnValue \leftarrow OsrEntry#9 Value 12 Parameter THIS_SLOT Value 13 Parameter 0 Value 14 OsrValue \leftarrow OsrEntry#9 Value 15 OsrValue \leftarrow OsrEntry#9 Value 16 OsrValue \leftarrow OsrEntry#9 Value
$ 7 \text{ Box} \leftarrow \text{Constant#2} \\ 8 \text{ Goto} \rightarrow \text{block 2} $ Value	17 Start 18 <u>Unbox OsrValue#14 to Int32 (fallible)</u> Int32 19 Goto → block 2
	lock 2
resumepoint 24 24 23 22 20 Phi ← Box#7, OsrReturn 21 Phi ← Parameter#0, Para 22 Phi ← Parameter#1, Para 23 Phi ← Constant#6, Unbo 24 Constant magic optimize 25 Goto → block 3	Value#11 Value ameter#12 Value ameter#13 Value ox#18 Int32
Block 3 (resumepoint 24 24 26 Phi ← Phi#23, Add 28 InterruptCheck 31 Unbox Phi#22 to I 32 Compare ← Phi#26 33 Test ← Compare#3	nt32 (fallible) Int32 6, Unbox#31 Lt Bool
$\sqrt{1}$	0
Block 4 (ba	ackedge)
resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20	MagicUninitializedLexical Shape
37 NewPlainObject ← Constant#36 38 Constant 0x0	Object Int32
39 Constant string 31bba152d780	String
40 GuardShape ← NewPlainObject#37	Object
memory 17 41 Elements ← GuardShape#40 memory 33	Elements
42 StoreElementHole ← GuardShape#40, Elements#41,	Constant#38, Constant#39
43 Constant 0x1	Int32
44 Constant string 31bba152be60 46 Elements ← GuardShape#40	String Elements
memory 42	Elements
47 StoreElementHole ← GuardShape#40, Elements#46, 50 Elements ← GuardShape#40 memory 47	Constant#43, Constant#44 Elements
51 InitializedLength ← Elements#50 memory 47	Int32
52 BoundsCheck \leftarrow Constant#43, InitializedLength#51	Int32
53 SpectreMaskIndex ← BoundsCheck#52, InitializedLen	
54 LoadElement ← Elements#50, SpectreMaskIndex#53 memory 47 58 Add ← Phi#26, Constant#43 [int32]	
58 Add ← Phi#26, Constant#43 [int32] 59 Goto → block 3	Int32

Block 5
resumepoint 24 24 26 22 21 20 24
61 Return ← Phi#20

./Benchmarkers/prop_access.js:2 - LICM movable, guard, in worklist, recovered on bailout

resumepoint 16 15 14 13 12 11 10

9 OsrEntry

Block 1

Pointer

Block 5

61 Return ← Phi#20

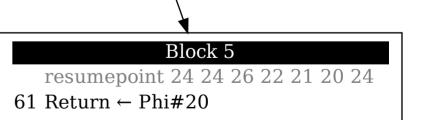
resumepoint 24 24 26 22 21 20 24

0 Parameter THIS SLOT Value 1 Parameter 0 Value 2 Constant undefined Undefined 3 Stort 4 Check(WortRocursed 6 Constant 0.00 Int32 7 Box ~ Constant#2 Value 8 Goto ~ block 2 Value 8 Goto ~ block 2 Value 8 Goto ~ block 2 Value 10 OsrPatry#9 Value 11 OsrPatry#9 Value 12 Parameter THIS SLOT Value 14 OsrValue ~ OsrPatry#9 Value 15 OsrValue ~ OsrPatry#9 Value 16 OsrValue ~ OsrPatry#9 Value 16 OsrValue ~ OsrPatry#9 Value 17 Start 18 Unhox OsrValue#14 to Int32 (fallible) 16 OsrValue ~ OsrPatry#9 Value 17 Start 18 Unhox OsrValue#14 to Int32 (fallible) 17 Start 18 Unhox OsrValue#14 to Int32 (fallible) 18 OsrValue ~ OsrPatry#9 Value 22 Phi ~ Parameter#1, Parameter#13 Value 22 Phi ~ Parameter#1, Parameter#13 Value 23 Phi ~ Constant#6, Unhox#18 24 Constant magic unlinage optimized-out 31 Unhox Phi#22; to Unbox#18 24 Goto ~ block 3 18 Block 3 (toron bradder) 18 Block 3 (toron bradder) 18 Block 3 (toron bradder) 19 Osrvalue#1 Into Int 32 28 InterruptCheck 3 Company ~ Phi#28 for Unbox#31 II Bool 3 Test ~ Company#32 ~ block 4, block 5 10 Osrvalue ~ Osrpany#32 ~ block 4, block 5 10 Osrvalue ~ Osrpany#32 ~ block 4, block 5 10 Osrvalue ~ Osrpany#32 ~ block 4, block 5 10 Osrvalue ~ Osrpany#32 ~ block 4, block 5 10 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany#32 ~ block 4, block 5 11 Osrvalue ~ Osrpany	0 Parameter T	t 2 2 2 1 0 2 2	Pointer
1 Parameter 0 Value 2 Constant undefined Undefined 3 Start 4 ChockConfocursed 6 Constant 0.0 Int. 12 Parameter 11 St. 10 Value 15 Osr'Aiue - OsrEntry#9 Value 16 OsrAiue - OsrEntry#9 Value 17 Osr'Aiue - OsrEntry#9 Value 18 Osr'A under 18 Osr'Aiue - OsrEntry#9 Value 19 Osr'Aiue - Osr'A		THIS SLOT Value 10 Constant undefined	
13 Parameter 14 Constant Wolfer 15 Constant Wolfer 16	1 Parameter 0	Value I I	
1	2 Constant un	idenned Undenned I I -	
1	3 Start		
16 Constant 40	4 <u>CheckOverR</u>	Recursed	
17 Start 18 Goto - block 2 18 Goto - block 2 19 Goto - block 2 10 Goto - block 3 10 Goto - block 4	6 Constant 0x	$Int.32 \mid I$	
18 Linbax OsrValue#14 to In 132 (fallible) Int32 19 Goto - block 2	7 Box ← Const	tant#/ value	Value
Block 2	8 Goto → blocl		1 100
			Int32
Tesumepoint 24 24 23 22 21 20 24 20 Phi = Box#7, OsrReturnValue#11		19 Goto → block 2	
Parameter 1			
20 Phi = Box#7, OsrReturnValue#11		Block 2	
21 Phi - Parameter#0, Parameter#12		resumepoint 24 24 23 22 21 20 24	
22 Phi - Parameter#1, Parameter#13		20 Phi ← Box#7, OsrReturnValue#11 Value	
23 Phi - Constant#6, Unbox#18		21 Phi ← Parameter#0, Parameter#12 Value	
24 Constant magic optimized-out 31 Unbox Phi#22 to Int32 (fallible)		22 Phi ← Parameter#1, Parameter#13 Value	
Block 3 (loop header) resumepoint 24 24 26 22 21 20 24 26 Phi = Phi#23, Add#58		23 Phi ← Constant#6, Unbox#18 Int32	
Block 3 (loop header) resumepoint 24 24 26 22 21 20 24 26 Phi - Phi#23, Add#58			
Block 3 (loop header) resumepoint 24 24 26 22 21 20 24 26 Phi - Phi#23, Add#58			
Tesumepoint 24 24 26 22 21 20 24 26 Phi - Phi#23, Add#58		25 Goto → block 3	
Pin			
26 Phi − Phi#23, Add#58		Block 3 (loop header)	
28 InterruptCheck 32 Compare ← Phi#26, Unbox#31 Lt Bool 33 Test ← Compare#32 → block 4, block 5		resumepoint 24 24 26 22 21 20 24	
32 Compare ← Phi#26, Unbox#31 Lt 30 Test ← Compare#32 → block 4, block 5 Block 4 (backedge) resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical MagicUninitialized Lexical Sconstant shape at 31bba156fc20 Shape 70 NewPlainObject ← Constant#36 Object MagicUninitialized Lexical Sconstant string 31bba152d780 Int32 39 Constant string 31bba152d780 String GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements#41, Constant#38, Constant#39 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant string 31bba152be60 String Flements ← GuardShape#40 Elements memory 47 44 Constant string 31bba152be60 String Flements ← GuardShape#40 Elements memory 47 51 InitializedLength ← Elements#50 Elements#51 Int32 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 Int32 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 Int32 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Velue memory 47		26 Phi ← Phi#23, Add#58 Int32	
Block 4 (block 5 Block 4 (block 5 Presume point 24 24 26 22 21 20 24 St. Constant magic uninitialized-lexical MagicUninitialized Lexical 36 Constant shape at 31 bba156fc20 Shape 37 NewPlainObject − Constant#36 Object 38 Constant 0x0 Int32 39 Constant string 31 bba152d780 String 40 GuardShape − NewPlainObject#37 Object memory 17 St. Elements ← GuardShape#40 Elements memory 33 Elements with a constant 0x1 Int32 St. Constant 0x1 Int32 Int32 St. Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 StoreElementHole ← GuardShape#40 Elements memory 42 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 StoreElementHole ← GuardShape#40 Elements memory 47 Elements ← GuardShape#40 Elements memory 47 StoreElementHole ← GuardShape#40 Elements memory 47 Elements ← GuardShape#40 Elemen		28 InterruptCheck	
Block 4 (backedge) resumepoint 24 24 26 22 21 20 24		32 Compare ← Phi#26, Unbox#31 Lt Bool	
Block 4 (backedge) resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20 38 Constant shape at 31bba156fc20 39 Constant string 31bba152d780 39 Constant string 31bba152d780 40 GuardShape + NewPlainObject#37 40 GuardShape + NewPlainObject#37 41 Elements - GuardShape#40 42 StoreElementHole - GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant ox1 44 Constant string 31bba152be60 45 Constant string 31bba152be60 46 Elements - GuardShape#40 47 StoreElementHole - GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements - GuardShape#40 50 Elements - GuardShape#40 51 InitializedLength - Elements#50 52 Elements - GuardShape#40 53 SpectreMaskIndex - BoundsCheck#52, InitializedLength#51 54 LoadElement - Elements#50, SpectreMaskIndex#53 55 Waller - Elements#50, SpectreMaskIndex#53 56 Value memory 47		33 Test ← Compare#32 → block 4, block 5	_
Block 4 (backedge) resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20 38 Constant 0x0 39 Constant 0x0 39 Constant string 31bba152d780 40 GuardShape — NewPlainObject #37 41 Elements — GuardShape #40 42 StoreElementHole — GuardShape #40, Elements #41, Constant #38, Constant #39 43 Constant 0x1 41 Constant string 31bba152be60 43 Constant 0x1 44 Constant string 31bba152be60 54 Constant string 31bba152be60 55 Elements — GuardShape #40 56 Elements — GuardShape #40, Elements #46, Constant #43, Constant #45 57 Elements — GuardShape #40 58 Elements — GuardShape #40 59 Elements — GuardShape #40 50 Elements — GuardShape #40 50 Elements — GuardShape #40 51 InitializedLength — Elements #50 52 Elements — GuardShape #40 53 SpectreMaskIndex — BoundsCheck #52, InitializedLength #51 54 LoadElement — Elements #50, SpectreMaskIndex #53 55 LoadElement — Elements #50, SpectreMaskIndex #53 56 LoadElement — Elements #50, SpectreMaskIndex #53 57 Value memory 47			
resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20 36 Shape 37 NewPlainObject ← Constant#36 Object 38 Constant 0x0 Int32 39 Constant string 31bba152d780 String 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 Elements memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 Int32 54 LoadElement ← Elements#50, SpectreMaskIndex#53 wemony 47 Value memory 47		\downarrow^{\perp}	0
35 Constant magic uninitialized Lexical 36 Constant shape at 31 bba156fc20 38 Constant (Shape) 37 NewPlainObject ← Constant#36 38 Constant 0x0 39 Constant string 31 bba152d780 40 GuardShape ← NewPlainObject#37 40 GuardShape ← NewPlainObject#37 41 Elements ← GuardShape#40 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant string 31 bba152be60 44 Constant string 31 bba152be60 54 Elements ← GuardShape#40 55 Elements ← GuardShape#40, Elements#46, Constant#43, Constant#44 56 Elements ← GuardShape#40, Elements#46, Constant#43, Constant#44 57 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 58 Elements ← GuardShape#40 59 Elements ← GuardShape#40 50 Elements ← GuardShape#40 50 Elements ← GuardShape#40 51 InitializedLength ← Elements#50 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 55 Value memory 47		3	
36 Constant shape at 31bba156fc20 37 NewPlainObject ← Constant#36 38 Constant 0x0 Int32 39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 memory 17 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 40 Constant string 31bba152be60 41 Elements ← GuardShape#40 Elements Memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 memory 47	-		
37 NewPlainObject ← Constant#36 38 Constant 0x0 39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 memory 17 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 41 Constant string 31bba152be60 43 Constant string 31bba152be60 45 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 wellow by the property of th	3		lizedLexical
38 Constant 0x0 Int32 39 Constant string 31bba152d780 String 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 Int32 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 Elements memory 47 51 InitializedLength ← Elements#50 Int32 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 Int32 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Value memory 47		- 1 F.C.C- 2 O	IIZOGEORIOGI
39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 44 Constant string 31bba152be60 5tring 46 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 memory 47 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Walue memory 47			I
40 GuardShape ← NewPlainObject#37 memory 17 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 memory 47 55 HoundScheck ← Constant#43, InitializedLength#51 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51			Shape
memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 Int32 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 Elements memory 47 51 InitializedLength ← Elements#50 Int32 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 Int32 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 Int32 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Value memory 47	37 NewPlainObject ← Const 38 Constant 0x0	tant#36	Shape Object Int32
41 Elements \leftarrow GuardShape#40 Elements memory 33 42 StoreElementHole \leftarrow GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant $0x1$ Int32 44 Constant string 31bba152be60 String 46 Elements \leftarrow GuardShape#40 Elements memory 42 47 StoreElementHole \leftarrow GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements \leftarrow GuardShape#40 Elements memory 47 51 InitializedLength \leftarrow Elements#50 Int32 memory 47 52 BoundsCheck \leftarrow Constant#43, InitializedLength#51 Int32 53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51 54 LoadElement \leftarrow Elements#50, SpectreMaskIndex#53 Value memory 47	37 NewPlainObject ← Const 38 Constant 0x0 39 Constant string 31bba15	2ant#36 52d780	Shape Object Int32 String
memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 44 Constant string 31bba152be60 5tring 46 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53 wemory 47	37 NewPlainObject ← Const 38 Constant 0x0 39 Constant string 31bba15 40 GuardShape ← NewPlain	2ant#36 52d780	Shape Object Int32 String
42 StoreElementHole \leftarrow GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant $0x1$ Int32 44 Constant string $31bba152be60$ String 46 Elements \leftarrow GuardShape#40 Elements memory 42 47 StoreElementHole \leftarrow GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements \leftarrow GuardShape#40 Elements memory 47 51 InitializedLength \leftarrow Elements#50 Int32 memory 47 52 BoundsCheck \leftarrow Constant#43, InitializedLength#51 Int32 53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51 54 LoadElement \leftarrow Elements#50, SpectreMaskIndex#53 Value memory 47	37 NewPlainObject ← Const 38 Constant 0x0 39 Constant string 31bba15 40 GuardShape ← NewPlain memory 17	tant#36 52d780 nObject#37	Shape Object Int32 String Object
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	37 NewPlainObject ← Const 38 Constant 0x0 39 Constant string 31bba15 40 GuardShape ← NewPlain memory 17 41 Elements ← GuardShape memory 33 42 StoreElementHole ← Gua 43 Constant 0x1 44 Constant string 31bba15 46 Elements ← GuardShape memory 42 47 StoreElementHole ← GuardShape memory 47 51 InitializedLength ← Elem memory 47 52 BoundsCheck ← Constant 53 SpectreMaskIndex ← BoundsCheck	cant#36 52d780 nObject#37 e#40 ardShape#40, Elements#41, Constant#38, Constant#39 52be60 e#40 ardShape#40, Elements#46, Constant#43, Constant#44 e#40	Shape Object Int32 String Object Elements Int32 String Elements Int32 Int32 Int32 Int32 Int32
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59 Goto → block 3	37 NewPlainObject ← Const 38 Constant 0x0 39 Constant string 31bba15 40 GuardShape ← NewPlain memory 17 41 Elements ← GuardShape memory 33 42 StoreElementHole ← Gua 43 Constant 0x1 44 Constant string 31bba15 46 Elements ← GuardShape memory 42 47 StoreElementHole ← GuardShape memory 47 51 InitializedLength ← Elem memory 47 52 BoundsCheck ← Constant 53 SpectreMaskIndex ← Bou 54 LoadElement ← Elements memory 47	cant#36 52d780 nObject#37 e#40 ardShape#40, Elements#41, Constant#38, Constant#39 52be60 e#40 ardShape#40, Elements#46, Constant#43, Constant#44 e#40 ardShape#450 ardShape#45	Shape Object Int32 String Object Elements Int32 String Elements Int32 Int32 Int32 Int32 Int32

Block 0

./Benchmarkers/prop_access.js:2 - Beta movable, guard, in worklist, recovered on bailout

	Block 1
Block 0	resumepoint 16 15 14 13 12 11 10
resumepoint 2 2 2 1 0 2 2	9 OsrEntry Pointer
0 Parameter THIS SLOT Value	10 Constant undefined Undefined
1 Parameter 0 Value	11 OsrReturnValue ← OsrEntry#9 Value
2 Constant undefined Undefined	12 Parameter THIS_SLOT Value
3 Start	13 Parameter 0 Value
4 CheckOverRecursed	14 OsrValue ← OsrEntry#9 Value
6 Constant 0x0 Int32	15 OsrValue ← OsrEntry#9 Value
$7 \text{ Box} \leftarrow \text{Constant#2} $ Value	16 OsrValue ← OsrEntry#9 Value
8 Goto → block 2	17 Start
O Gotto / Block 2	18 <u>Unbox OsrValue#14 to Int32 (fallible)</u> Int32
	19 Goto → block 2
resumepoint 24 24 23 22	lock 2
20 Phi ← Box#7, OsrReturn	
21 Phi ← Parameter#0, Para	
22 Phi ← Parameter#1, Para	
23 Phi ← Constant#6, Unbo	
24 Constant magic optimize	
31 Unbox Phi#22 to Int32 (
$25 \text{ Goto} \rightarrow \text{block } 3$	111602
25 Goto - Block 5	
	↓
Block 3 (loop header)
resumepoint 24 24	26 22 21 20 24
26 Phi ← Phi#23, Add	#58 Int32
28 InterruptCheck	
32 Compare ← Phi#26	5, Unbox#31 Lt Bool
33 Test ← Compare#3	$2 \rightarrow \text{block 4, block 5}$
$\int_{\mathbf{a}}$	
\int_{1}	0
Block 4 (ba	
Block 4 (barresumepoint 24 24 71 22 21 20 24	
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resumepoint 24 24 71 22 21 20 24 72 Beta ← Unbox#31 I[-2147483647, 2147483647]	ickedge) Int32
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resumepoint 24 24 71 22 21 20 24 72 Beta ← Unbox#31 I[-2147483647, 2147483647] 71 Beta ← Phi#26 I[-2147483648, 2147483646] 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20 37 NewPlainObject ← Constant#36 38 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 memory 17 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, 43 Constant string 31bba152be60 46 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength 54 LoadElement ← Elements#50, SpectreMaskIndex#53	Int32 Int32 Int32 MagicUninitializedLexical Shape Object Int32 String Object Elements Constant#38, Constant#39 Int32 String Elements Constant#43, Constant#44 Elements Int32 Int32 Int32
resumepoint 24 24 71 22 21 20 24 72 Beta ← Unbox#31 I[-2147483647, 2147483647] 71 Beta ← Phi#26 I[-2147483648, 2147483646] 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20 37 NewPlainObject ← Constant#36 38 Constant 0x0 39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 memory 17 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, 43 Constant 0x1 44 Constant string 31bba152be60 46 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength 54 LoadElement ← Elements#50, SpectreMaskIndex#53 memory 47	Int32 Int32 Int32 MagicUninitializedLexical Shape Object Int32 String Object Elements Constant#38, Constant#39 Int32 String Elements Constant#43, Constant#44 Elements Int32 Int32 Int32
resumepoint 24 24 71 22 21 20 24 72 Beta ← Unbox#31 I[-2147483647, 2147483647] 71 Beta ← Phi#26 I[-2147483648, 2147483646] 35 Constant magic uninitialized-lexical 36 Constant shape at 31bba156fc20 37 NewPlainObject ← Constant#36 38 Constant 0x0 39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 memory 17 41 Elements ← GuardShape#40 memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, 43 Constant 0x1 44 Constant string 31bba152be60 46 Elements ← GuardShape#40 memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, 50 Elements ← GuardShape#40 memory 47 51 InitializedLength ← Elements#50 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength 54 LoadElement ← Elements#50, SpectreMaskIndex#53	Int32 Int32 MagicUninitializedLexical Shape Object Int32 String Object Elements Constant#38, Constant#39 Int32 String Elements Constant#43, Constant#44 Elements Int32 Int32 Jint32 Jint32 Jint32 Jint32 Jint32 Value



./Benchmarkers/prop_access.js:2 - Range Analysis movable, guard, in worklist, recovered on bailout

Block 0			
resumepoint 2 2 2 1 0 2 2	_		
0 Parameter THIS_SLOT	Value		
1 Parameter 0	Value		
2 Constant undefined	Undefined		
3 Start			
4 CheckOverRecursed			
6 Constant 0x0	I[0, 0]: Int32		
$7 \text{ Box} \leftarrow \text{Constant#2}$	Value		
8 Goto → block 2			

Block 1	
resumepoint 16 15 14 13 12 11 10	_
9 OsrEntry	Pointer
10 Constant undefined	Undefined
11 OsrReturnValue ← OsrEntry#9	Value
12 Parameter THIS_SLOT	Value
13 Parameter 0	Value
14 OsrValue ← OsrEntry#9	Value
15 OsrValue ← OsrEntry#9	Value
16 OsrValue ← OsrEntry#9	Value
17 Start	
18 <u>Unbox OsrValue#14 to Int32 (fallible)</u>	Int32
19 Goto \rightarrow block 2	

Block 2

resumepoint 24 24 23 22 21 20 24

20 Phi ← Box#7, OsrReturnValue#11

21 Phi ← Parameter#0, Parameter#12 Value

22 Phi ← Parameter#1, Parameter#13

Int32

Value

Value

23 Phi ← Constant#6, Unbox#18 24 Constant magic optimized-out

MagicOptimizedOut

31 Unbox Phi#22 to Int32 (fallible)

Int32

25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 24 24 26 22 21 20 24

26 Phi ← Phi#23, Add#58

I[-2147483648 {#23}, 2147483647 {[loop] #31-1}]: Int32

28 InterruptCheck

32 Compare ← Phi#26, Unbox#31 Lt

33 Test \leftarrow Compare#32 \rightarrow block 4, block 5

Bool

Block 4 (backedge)

resumepoint 24 24 71 22 21 20 24

72 Beta \leftarrow Unbox#31 I[-2147483647, 2147483647]

71 Beta \leftarrow Phi#26 I[-2147483648, 2147483646]

35 Constant magic uninitialized-lexical

36 Constant shape at 31bba156fc20

37 NewPlainObject ← Constant#36

38 Constant 0x0

39 Constant string 31bba152d780

40 GuardShape ← NewPlainObject#37

memory 17

41 Elements ← GuardShape#40

memory 33

42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39

43 Constant 0x1

44 Constant string 31bba152be60

46 Elements ← GuardShape#40

memory 42

47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44

50 Elements ← GuardShape#40

memory 47

51 InitializedLength ← Elements#50 memory 47

52 BoundsCheck ← Constant#43, InitializedLength#51

53 SpectreMaskIndex ← BoundsCheck#52, InitializedLength#51

54 LoadElement ← Elements#50, SpectreMaskIndex#53

memory 47

58 Add ← Beta#71, Constant#43 [int32]

59 Goto → block 3

I[-2147483647, 2147483647]: Int32 I[-2147483648, 2147483646]: Int32

MagicUninitializedLexical

Shape

Object I[0, 0]: Int32

String

Object

Elements

I[1, 1]: Int32

String

Elements

Elements

I[0, 268435444]: Int32

I[1, 1]: Int32

I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

Block 5 resumepoint 24 24 26 22 21 20 24 61 Return ← Phi#20

./Benchmarkers/prop_access.js:2 - De-Beta movable, guard, in worklist, recovered on bailout

	Block 1
Block 0	resumepoint 16 15 14 13 12 11 10
	9 OsrEntry Pointe
resumepoint 2 2 2 1 0 2 2	10 Constant undefined Undefined
0 Parameter THIS_SLOT Value	11 OsrReturnValue ← OsrEntry#9 Value
1 Parameter 0 Value	12 Parameter THIS_SLOT Value
2 Constant undefined Undefined	13 Parameter 0 Value
3 Start	14 OsrValue ← OsrEntry#9 Value
4 CheckOverRecursed	15 OsrValue ← OsrEntry#9 Value
6 Constant 0x0 I[0, 0]: Int32	16 OsrValue ← OsrEntry#9 Value
7 Box ← Constant#2 Value	17 Start
8 Goto → block 2	18 <u>Unbox OsrValue#14 to Int32 (fallible)</u> Int32
	19 Goto → block 2
P	lock 2
resumepoint 24 24 23 22	
$20 \text{ Phi} \leftarrow \text{Box} #7, \text{OsrReturn}$	
$20 \text{ Fin} \leftarrow \text{Box} \# 7$, Osfrædum $21 \text{ Phi} \leftarrow \text{Parameter} \# 0$, Parameter	
21 Fin ← Parameter#0, Para 22 Phi ← Parameter#1, Para	
22 Fin ← Farameter#1, Fara 23 Phi ← Constant#6, Unbo	
·	
24 Constant magic optimize 31 <u>Unbox Phi#22 to Int32 (</u>	
$25 \text{ Goto} \rightarrow \text{block } 3$	
25 Goto - block 5	
	V
	(loop header)
resumepoint 24 24 26 22 21 20 24	7402640 (#22) 2447402647 ([] 1 #24 41] 1 +22
	7483648 {#23}, 2147483647 {[loop] #31-1}]: Int32
28 InterruptCheck	n1
32 Compare ← Phi#26, Unbox#31 Lt	Bool
33 Test ← Compare#32 → block 4, block 5	

35 Constant magic uninitialized-lexical MagicUninitializedLexical 36 Constant shape at 31bba156fc20 Shape 37 NewPlainObject \leftarrow Constant#36 Object I[0, 0]: Int32 38 Constant 0x0 39 Constant string 31bba152d780 String 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 I[1, 1]: Int32 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 Elements memory 47 51 InitializedLength \leftarrow Elements#50 I[0, 268435444]: Int32 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 I[1, 1]: Int32 53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51 I[1, 1]: Int32 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Value memory 47 58 Add ← Phi#26, Constant#43 [int32] I[-2147483647, 2147483647]: Int32

Block 5

61 Return ← Phi#20

resumepoint 24 24 26 22 21 20 24

Block 4 (backedge)

resumepoint 24 24 26 22 21 20 24

59 Goto → block 3

./Benchmarkers/prop_access.js:2 - RA check UCE movable, guard, in worklist, recovered on bailout

	Block 1	
	resumepoint 16 15 14 13 12 11 10	
Block 0 resumepoint 2 2 2 1 0 2 2	9 OsrEntry	Pointer
	10 Constant undefined	Undefined
_	11 OsrReturnValue ← OsrEntry#9	Value
1 Parameter 0 Value	12 Parameter THIS_SLOT	Value
2 Constant undefined Undefined	13 Parameter 0	Value
3 Start	14 OsrValue ← OsrEntry#9	Value
4 CheckOverRecursed	15 OsrValue ← OsrEntry#9	Value
6 Constant 0x0 I[0, 0]: Int32	16 OsrValue ← OsrEntry#9	Value
7 Box ← Constant#2 Value	17 Start	
8 Goto → block 2	18 Unbox OsrValue#14 to Int32 (fallible)	Int32
	19 Goto → block 2	
D	lock 2	
resumepoint 24 24 23 22		
$20 \text{ Phi} \leftarrow \text{Box} #7, \text{OsrReturn}$		
$20 \text{ Fin} \leftarrow \text{Box} \# 7$, OstReturn $21 \text{ Phi} \leftarrow \text{Parameter} \# 0$, Parameter		
22 Phi ← Parameter#1, Parameter#1		
$23 \text{ Phi} \leftarrow Constant#6, Unbo$		
·		
24 Constant magic optimize 31 <u>Unbox Phi#22 to Int32</u> (
$25 \text{ Goto} \rightarrow \text{block } 3$	<u>fallible</u>) Int32	
23 Goto - block 3		
	*	
	(loop header)	
resumepoint 24 24 26 22 21 20 24	7. 100.010 (#00.) 01.1 7. 100.017 (7.100.17)	427.7.00
6 Phi ← Phi#23, Add#58 I[-214	7483648 {#23}, 2147483647 {[loop] #31-	1 }]: Int32

resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical Magic Uninitialized Lexical36 Constant shape at 31bba156fc20 Shape 37 NewPlainObject ← Constant#36 Object 38 Constant 0x0 I[0, 0]: Int32 39 Constant string 31bba152d780 String 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 I[1, 1]: Int32 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44

Block 4 (backedge)

28 InterruptCheck

50 Elements ← GuardShape#40

51 InitializedLength ← Elements#50

58 Add ← Phi#26, Constant#43 [int32]

52 BoundsCheck ← Constant#43, InitializedLength#51

54 LoadElement ← Elements#50, SpectreMaskIndex#53

53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51

memory 47

memory 47

memory 47

59 Goto → block 3

32 Compare ← Phi#26, Unbox#31 Lt

33 Test ← Compare#32 → block 4, block 5

Block 5 resumepoint 24 24 26 22 21 20 24 61 Return ← Phi#20

Bool

Elements

I[1, 1]: Int32

I[1, 1]: Int32

Value

I[0, 268435444]: Int32

I[-2147483647, 2147483647]: Int32

./Benchmarkers/prop_access.js:2 - Truncate Doubles movable, guard, in worklist, recovered on bailout

D1 1.0	
Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
6 Constant 0x0	I[0, 0]: Int32
$7 \text{ Box} \leftarrow \text{Constant#2}$	Value
$8 \text{ Goto} \rightarrow \text{block } 2$	

Block 1	
resumepoint 16 15 14 13 12 11 10	_
9 OsrEntry	Pointer
10 Constant undefined U	Undefined
11 OsrReturnValue ← OsrEntry#9	Value
12 Parameter THIS_SLOT	Value
13 Parameter 0	Value
14 OsrValue ← OsrEntry#9	Value
15 OsrValue ← OsrEntry#9	Value
16 OsrValue ← OsrEntry#9	Value
17 Start	
18 <u>Unbox OsrValue#14 to Int32 (fallible)</u>	Int32
19 Goto → block 2	

Block 2 resumepoint 24 24 23 22 21 20 24 20 Phi ← Box#7, OsrReturnValue#11 Value 21 Phi ← Parameter#0, Parameter#12 Value 22 Phi ← Parameter#1, Parameter#13 Value Int32 23 Phi ← Constant#6, Unbox#18 24 Constant magic optimized-out MagicOptimizedOut 31 Unbox Phi#22 to Int32 (fallible) Int32 25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 24 24 26 22 21 20 24

26 Phi ← Phi#23, Add#58

I[-2147483648 {#23}, 2147483647 {[loop] #31-1}]: Int32

28 InterruptCheck

32 Compare ← Phi#26, Unbox#31 Lt

33 Test \leftarrow Compare#32 \rightarrow block 4, block 5

Bool

Block 4 (backedge) resumepoint 24 24 26 22 21 20 24

35 Constant magic uninitialized-lexical

36 Constant shape at 31bba156fc20

37 NewPlainObject ← Constant#36

38 Constant 0x0

39 Constant string 31bba152d780

40 GuardShape ← NewPlainObject#37

memory 17

41 Elements ← GuardShape#40

memory 33

42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39

43 Constant 0x1

44 Constant string 31bba152be60

46 Elements ← GuardShape#40 memory 42

47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44

50 Elements ← GuardShape#40

memory 47 51 InitializedLength ← Elements#50

memory 47

52 BoundsCheck ← Constant#43, InitializedLength#51

 $\textbf{53 SpectreMaskIndex} \leftarrow BoundsCheck \#52, InitializedLength \#51$

54 LoadElement ← Elements#50. SpectreMaskIndex#53

memory 47

58 Add ← Phi#26, Constant#43 [int32]

59 Goto \rightarrow block 3

MagicUninitializedLexical

Shape Object

I[0, 0]: Int32

String

Object

Elements

I[1, 1]: Int32

String

Elements

Elements

I[0, 268435444]: Int32

I[1, 1]: Int32

I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

Block 5 resumepoint 24 24 26 22 21 20 24 61 Return ← Phi#20

./Benchmarkers/prop_access.js:2 - Sink movable, guard, in worklist, recovered on bailout

	Block 1
Dla ala O	resumepoint 16 15 14 13 12 11 10
Block 0	9 OsrEntry Pointer
resumepoint 2 2 2 1 0 2 2	10 Constant undefined Undefined
0 Parameter THIS_SLOT Value	11 OsrReturnValue ← OsrEntry#9 Value
1 Parameter 0 Value	12 Parameter THIS SLOT Value
2 Constant undefined Undefined	13 Parameter 0 Value
3 Start	14 OsrValue ← OsrEntry#9 Value
4 CheckOverRecursed	15 OsrValue ← OsrEntry#9 Value
6 Constant 0x0 I[0, 0]: Int32	16 OsrValue ← OsrEntry#9 Value
7 Box ← Constant#2 Value	17 Start
8 Goto → block 2	18 <u>Unbox OsrValue#14 to Int32 (fallible)</u> Int32
	19 Goto → block 2
	Block 2
resumepoint 24 24 23 2	
20 Phi ← Box#7, OsrReturn	
21 Phi ← Parameter#0, Par	
22 Phi ← Parameter#1, Par	
23 Phi ← Constant#6, Unbo	
24 Constant magic optimize	
31 Unbox Phi#22 to Int32	5 -
25 Goto → block 3	
Block 3	(loop header)
resumepoint 24 24 26 22 21 20 24	
$5 \text{ Phi} \leftarrow \text{Phi} # 23$, $Add # 58$ I[-214	17483648 {#23}, 2147483647 {[loop] #31-1}]: Int32
3 InterruptCheck	
2 Compare ← Phi#26, Unbox#31 Lt	Bool

resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical MagicUninitializedLexical 36 Constant shape at 31bba156fc20 Shape 37 NewPlainObject \leftarrow Constant#36 Object 38 Constant 0x0 I[0, 0]: Int32 39 Constant string 31bba152d780 String 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 I[1, 1]: Int32 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 Elements memory 47 51 InitializedLength ← Elements#50 I[0, 268435444]: Int32 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 I[1, 1]: Int32 53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51 I[1, 1]: Int32 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Value memory 47

Block 4 (backedge)

33 Test ← Compare#32 → block 4, block 5

58 Add ← Phi#26, Constant#43 [int32]

59 Goto → block 3

Block 5 resumepoint 24 24 26 22 21 20 24 61 Return ← Phi#20

I[-2147483647, 2147483647]: Int32

./Benchmarkers/prop_access.js:2 - Remove Unnecessary Bitops movable, guard, in worklist, recovered on bailout

	Block 1	
Block 0 resumepoint 2 2 2 1 0 2 2 0 Parameter THIS_SLOT Value 1 Parameter 0 Value 2 Constant undefined Undefined 3 Start 4 CheckOverRecursed 6 Constant $0x0$ I[0, 0]: Int3 7 Box ← Constant#2 Value 8 Goto → block 2	ue ed 11 OsrReturnValue ← OsrEntry#9 12 Parameter THIS_SLOT 13 Parameter 0 14 OsrValue ← OsrEntry#9 15 OsrValue ← OsrEntry#9 16 OsrValue ← OsrEntry#9	Pointer Undefined Value Value Value Value Value Value Int32
resumepoint 24 24 20 Phi ← Box#7, OsrR 21 Phi ← Parameter#0 22 Phi ← Parameter#1 23 Phi ← Constant#6, 24 Constant magic opt 31 Unbox Phi#22 to In 25 Goto → block 3	teturnValue#11 Value O, Parameter#12 Value I, Parameter#13 Value Unbox#18 Int32 timized-out MagicOptimizedOut	

Block 3 (loop header)

resumepoint 24 24 26 22 21 20 24

26 Phi ← Phi#23, Add#58

I[-2147483648 {#23}, 2147483647 {[loop] #31-1}]: Int32

28 InterruptCheck

32 Compare ← Phi#26, Unbox#31 Lt

33 Test \leftarrow Compare#32 \rightarrow block 4, block 5

Bool

Block 4 (backedge) resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical MagicUninitializedLexical 36 Constant shape at 31bba156fc20 Shape 37 NewPlainObject ← Constant#36 Object 38 Constant 0x0 I[0, 0]: Int32 String 39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 I[1, 1]: Int32 44 Constant string 31bba152be60 String

memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44

50 Elements ← GuardShape#40

46 Elements ← GuardShape#40

Elements

memory 47 51 InitializedLength ← Elements#50

memory 47

I[0, 268435444]: Int32

52 BoundsCheck ← Constant#43, InitializedLength#51

I[1, 1]: Int32

53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51 54 LoadElement ← Elements#50, SpectreMaskIndex#53

I[1, 1]: Int32 Value

memory 47

58 Add ← Phi#26, Constant#43 [int32]

I[-2147483647, 2147483647]: Int32

59 Goto → block 3

61 Return ← Phi#20 Elements

Block 5

resumepoint 24 24 26 22 21 20 24

./Benchmarkers/prop_access.js:2 - Fold Linear Arithmetic Constants movable, guard, in worklist, recovered on bailout

Block 0 resumepoint 2 2 2 1 0 2 2	Block 1 resumepoint 16 15 14 13 12 11 10 9 OsrEntry	Pointer
0 Parameter THIS_SLOT Value 1 Parameter 0 Value 2 Constant undefined Undefined 3 Start 4 CheckOverRecursed 6 Constant $0x0$ I[0, 0]: Int32 7 Box \leftarrow Constant#2 Value 8 Goto \rightarrow block 2	10 Constant undefined 11 OsrReturnValue ← OsrEntry#9 12 Parameter THIS_SLOT 13 Parameter 0 14 OsrValue ← OsrEntry#9 15 OsrValue ← OsrEntry#9 16 OsrValue ← OsrEntry#9 17 Start 18 Unbox OsrValue#14 to Int32 (fallible)	Undefined Value Value Value Value Value Value Value Value
	19 Goto → block 2	
resumepoint 24 24 23 22 20 Phi ← Box#7, OsrReturn V 21 Phi ← Parameter#0, Para 22 Phi ← Parameter#1, Para 23 Phi ← Constant#6, Unbox 24 Constant magic optimized 31 Unbox Phi#22 to Int32 (f	Value#11 Value Imeter#12 Value Imeter#13 Value Ix#18 Int32 Int32 Int32	

Block 3 (loop header)

resumepoint 24 24 26 22 21 20 24

25 Goto \rightarrow block 3

26 Phi ← Phi#23, Add#58

I[-2147483648 {#23}, 2147483647 {[loop] #31-1}]: Int32

28 InterruptCheck

32 Compare ← Phi#26, Unbox#31 Lt

33 Test \leftarrow Compare#32 \rightarrow block 4, block 5

Block 4 (backedge)

resumepoint 24 24 26 22 21 20 24

35 Constant magic uninitialized-lexical

36 Constant shape at 31bba156fc20 37 NewPlainObject ← Constant#36

38 Constant 0x0

39 Constant string 31bba152d780

40 GuardShape ← NewPlainObject#37

memory 17

41 Elements ← GuardShape#40

memory 33

42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39

43 Constant 0x1

44 Constant string 31bba152be60

46 Elements ← GuardShape#40 memory 42

47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44

50 Elements ← GuardShape#40

memory 47 51 InitializedLength ← Elements#50

memory 47

52 BoundsCheck ← Constant#43, InitializedLength#51

53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51

54 LoadElement ← Elements#50, SpectreMaskIndex#53

memory 47

58 Add ← Phi#26, Constant#43 [int32]

59 Goto → block 3

MagicUninitializedLexical

Bool

Shape Object

I[0, 0]: Int32 String

Object

Elements

I[1, 1]: Int32

String

Elements

Elements

I[0, 268435444]: Int32

I[1, 1]: Int32

I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

Block 5 resumepoint 24 24 26 22 21 20 24 61 Return ← Phi#20

./Benchmarkers/prop_access.js:2 - Effective Address Analysis movable, guard, in worklist, recovered on bailout

	Block 0		resumepo
	resumepoint 2 2 2 1 0 2 2		9 OsrEntry
ı	0 Parameter THIS SLOT	Value	10 Constant
ı	1 Parameter 0	Value	11 OsrRetur
ı	2 Constant undefined	Undefined	12 Paramete
ı	3 Start	Ondenned	13 Paramete
ı	4 CheckOverRecursed		14 OsrValue
ı	6 Constant 0x0	I[0, 0]: Int32	15 OsrValue
ı		Value	16 OsrValue
ı	$7 \text{ Box} \leftarrow \text{Constant#2}$	varue	17 Start
	8 Goto → block 2		18 <u>Unbox Os</u>
			19 Goto → bl
			>

Block 1	
resumepoint 16 15 14 13 12 11 10	
9 OsrEntry	Pointer
10 Constant undefined	Undefined
11 OsrReturnValue ← OsrEntry#9	Value
12 Parameter THIS_SLOT	Value
13 Parameter 0	Value
14 OsrValue ← OsrEntry#9	Value
15 OsrValue ← OsrEntry#9	Value
16 OsrValue ← OsrEntry#9	Value
17 Start	
18 <u>Unbox OsrValue#14 to Int32 (fallible)</u>	Int32
19 Goto → block 2	

Block 2 resumepoint 24 24 23 22 21 20 24 20 Phi ← Box#7, OsrReturnValue#11 Value 21 Phi ← Parameter#0, Parameter#12 Value 22 Phi ← Parameter#1, Parameter#13 Value Int32 23 Phi ← Constant#6, Unbox#18 24 Constant magic optimized-out MagicOptimizedOut 31 Unbox Phi#22 to Int32 (fallible) Int32 25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 24 24 26 22 21 20 24

26 Phi ← Phi#23, Add#58

I[-2147483648 {#23}, 2147483647 {[loop] #31-1}]: Int32

28 InterruptCheck

32 Compare ← Phi#26, Unbox#31 Lt

33 Test \leftarrow Compare#32 \rightarrow block 4, block 5

Bool

Block 4 (backedge) resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical MagicUninitializedLexical 36 Constant shape at 31bba156fc20 Shape 37 NewPlainObject ← Constant#36 Object 38 Constant 0x0 I[0, 0]: Int32 String 39 Constant string 31bba152d780 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39

memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44

50 Elements ← GuardShape#40

44 Constant string 31bba152be60

46 Elements ← GuardShape#40

Elements

I[1, 1]: Int32

String

Elements

memory 47 51 InitializedLength ← Elements#50

memory 47

43 Constant 0x1

I[0, 268435444]: Int32

52 BoundsCheck ← Constant#43, InitializedLength#51

I[1, 1]: Int32

 $\textbf{53 SpectreMaskIndex} \leftarrow BoundsCheck \#52, InitializedLength \#51$ 54 LoadElement ← Elements#50. SpectreMaskIndex#53

I[1, 1]: Int32 Value

memory 47

58 Add ← Phi#26, Constant#43 [int32]

I[-2147483647, 2147483647]: Int32

59 Goto \rightarrow block 3

resumepoint 24 24 26 22 21 20 24 61 Return ← Phi#20

Block 5

./Benchmarkers/prop_access.js:2 - DCE movable, guard, in worklist, recovered on bailout

Bool

I[-2147483647, 2147483647]: Int32

Block 5

61 Return ← Phi#20

resumepoint 24 24 26 22 21 20 24

Block 0	Block 1 resumepoint 16 15 14 13 12 11 10 9 OsrEntry	Pointer
resumepoint 2 2 2 1 0 2 2	1	Jndefined
0 Parameter THIS_SLOT Value	11 OsrReturnValue ← OsrEntry#9	Value
1 Parameter 0 Value	12 Parameter THIS SLOT	Value
2 Constant undefined Undefined	13 Parameter 0	Value
3 Start	14 OsrValue ← OsrEntry#9	Value
4 CheckOverRecursed	15 OsrValue ← OsrEntry#9	Value
6 Constant 0x0 I[0, 0]: Int32	16 OsrValue ← OsrEntry#9	Value
$7 \text{ Box} \leftarrow \text{Constant#2}$ Value	17 Start	varuc
8 Goto → block 2	18 <u>Unbox OsrValue#14 to Int32 (fallible)</u>	Int32
	19 Goto → block 2	111002
	/	
В	lock 2	
resumepoint 24 24 23 22 21 20 24		
20 Phi ← Box#7, OsrReturnValue#11 Value		
21 Phi ← Parameter#0, Parameter#12 Value		
22 Phi ← Parameter#1, Parameter#13 Value		
23 Phi ← Constant#6, Unbox#18 Int32		
24 Constant magic optimized-out MagicOptimizedOut		
31 <u>Unbox Phi#22 to Int32 (</u>	fallible) Int32	
25 Goto → block 3		
	(loop header)	
resumepoint 24 24 26 22 21 20 24		
5 Phi ← Phi#23, Add#58	7483648 {#23}, 2147483647 {[loop] #31-1}	· J: Int32

resumepoint 24 24 26 22 21 20 24 35 Constant magic uninitialized-lexical MagicUninitializedLexical 36 Constant shape at 31bba156fc20 Shape 37 NewPlainObject \leftarrow Constant#36 Object 38 Constant 0x0 I[0, 0]: Int32 39 Constant string 31bba152d780 String 40 GuardShape ← NewPlainObject#37 Object memory 17 41 Elements ← GuardShape#40 Elements memory 33 42 StoreElementHole ← GuardShape#40, Elements#41, Constant#38, Constant#39 43 Constant 0x1 I[1, 1]: Int32 44 Constant string 31bba152be60 String 46 Elements ← GuardShape#40 Elements memory 42 47 StoreElementHole ← GuardShape#40, Elements#46, Constant#43, Constant#44 50 Elements ← GuardShape#40 Elements memory 47 51 InitializedLength ← Elements#50 I[0, 268435444]: Int32 memory 47 52 BoundsCheck ← Constant#43, InitializedLength#51 I[1, 1]: Int32 53 SpectreMaskIndex \leftarrow BoundsCheck#52, InitializedLength#51 I[1, 1]: Int32 54 LoadElement ← Elements#50, SpectreMaskIndex#53 Value memory 47

Block 4 (backedge)

32 Compare ← Phi#26, Unbox#31 Lt

58 Add ← Phi#26, Constant#43 [int32]

59 Goto → block 3

33 Test ← Compare#32 → block 4, block 5

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
5 Constant 0x0	I[0, 0]: Int32
6 Box ← Constant#2	Value
7 Goto → block 2	
resume	point 23 23 22

Block 1 resumepoint 15 14 13 12 11 10 9 8 OsrEntry Pointer 9 Constant undefined Undefined 10 OsrReturnValue ← OsrEntry#8 Value 11 Parameter THIS_SLOT Value 12 Parameter 0 Value 13 OsrValue ← OsrEntry#8 Value 14 OsrValue ← OsrEntry#8 Value 15 OsrValue ← OsrEntry#8 Value 16 Start 17 Unbox OsrValue#13 to Int32 (fallible) Int32 18 Goto \rightarrow block 2

Block 2 resumepoint 23 23 22 21 20 19 23 19 Phi ← Box#6, OsrReturnValue#10 Value 20 Phi ← Parameter#0, Parameter#11 Value 21 Phi ← Parameter#1, Parameter#12 Value Int32 22 Phi ← Constant#5, Unbox#17 MagicOptimizedOut 23 Constant magic optimized-out 24 Unbox Phi#21 to Int32 (fallible) Int32 25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Bool

Block 4 (backedge) resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical MagicUninitializedLexical 31 Constant shape at 31bba156fc20 Shape 32 Constant 0x0 I[0, 0]: Int32 33 Constant string 31bba152d780 String 34 Constant string 31bba152be60 String 35 NewPlainObject ← Constant#31 Object 36 GuardShape ← NewPlainObject#35 Object memory 16

37 Elements ← GuardShape#36 memory 29

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1

40 Elements ← GuardShape#36

memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

42 Elements ← GuardShape#36 memory 41

43 InitializedLength ← Elements#42

47 Add ← Phi#26, Constant#39 [int32]

memory 41 44 BoundsCheck ← Constant#39, InitializedLength#43 I[0, 268435444]: Int32

45 SpectreMaskIndex \leftarrow BoundsCheck#44, InitializedLength#43

I[1, 1]: Int32 I[1, 1]: Int32

46 LoadElement ← Elements#42. SpectreMaskIndex#45

Value

Elements

Elements

Elements

I[1, 1]: Int32

memory 41

I[-2147483647, 2147483647]: Int32

48 Goto \rightarrow block 3

./Benchmarkers/prop_access.js:2 - Make loops contiguous movable, guard, in worklist, recovered on bailout

Value Int32

Int32

Block 0 resumepoint 2 2 2 1 0 2 2 0 Parameter THIS_SLOT Value 1 Parameter 0 Value 2 Constant undefined Undefined	10 OsrReturnValue ← OsrEntry#8 11 Parameter THIS_SLOT
3 Start 4 CheckOverRecursed 5 Constant 0x0 6 Box ← Constant#2 7 Goto → block 2 Undefined Undefined Undefined Undefined Undefined Value Value	12 Parameter 0 13 OsrValue ← OsrEntry#8 14 OsrValue ← OsrEntry#8
resumepoint 23 23 2 19 Phi ← Box#6, OsrRet 20 Phi ← Parameter#0,	turnValue#10 Value

21 Phi ← Parameter#1, Parameter#12

22 Phi ← Constant#5, Unbox#17 23 Constant magic optimized-out

25 Goto \rightarrow block 3

24 Unbox Phi#21 to Int32 (fallible)

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

MagicOptimizedOut

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Block 4 (backedge)

30 Constant magic uninitialized-lexical

resumepoint 23 23 26 21 20 19 23

31 Constant shape at 31bba156fc20

32 Constant 0x0

33 Constant string 31bba152d780

34 Constant string 31bba152be60

35 NewPlainObject ← Constant#31

36 GuardShape ← NewPlainObject#35

memory 16

37 Elements ← GuardShape#36

memory 29

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1

40 Elements ← GuardShape#36

memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

42 Elements ← GuardShape#36

memory 41 43 InitializedLength ← Elements#42

memory 41

44 BoundsCheck ← Constant#39, InitializedLength#43

45 SpectreMaskIndex ← BoundsCheck#44, InitializedLength#43

46 LoadElement ← Elements#42. SpectreMaskIndex#45 memory 41

47 Add ← Phi#26, Constant#39 [int32]

48 Goto \rightarrow block 3

MagicUninitializedLexical

Bool

Pointer

Value

Value Value

Value

Value

Value

Int32

Undefined

Shape I[0, 0]: Int32

String

String

Object

Object

Elements

I[1, 1]: Int32

Elements

Elements

I[0, 268435444]: Int32

I[1, 1]: Int32

I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

./Benchmarkers/prop_access.js:2 - Remove fake loop predecessors movable, guard, in worklist, recovered on bailout

Block 0	
resumepoint 2 2 2 1 0 2 2	
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
5 Constant 0x0	I[0, 0]: Int32
6 Box ← Constant#2	Value
7 Goto → block 2	
<u> </u>	
resume	point 23 23 22

Block 1	
resumepoint 15 14 13 12 11 10 9	
8 OsrEntry	Pointer
9 Constant undefined	Undefined
10 OsrReturnValue ← OsrEntry#8	Value
11 Parameter THIS_SLOT	Value
12 Parameter 0	Value
13 OsrValue ← OsrEntry#8	Value
14 OsrValue ← OsrEntry#8	Value
15 OsrValue ← OsrEntry#8	Value
16 Start	
17 <u>Unbox OsrValue#13 to Int32 (fallible)</u>	Int32
18 Goto → block 2	

	Block 2	
	resumepoint 23 23 22 21 20 19 23	
	19 Phi ← Box#6, OsrReturnValue#10	Value
	20 Phi \leftarrow Parameter#0, Parameter#11	Value
	21 Phi ← Parameter#1, Parameter#12	Value
	22 Phi ← Constant#5, Unbox#17	Int32
	23 Constant magic optimized-out	Magic Optimized Out
	24 <u>Unbox Phi#21 to Int32 (fallible)</u>	Int32
	25 Goto → block 3	
ı		

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Bool

I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

Block 4 (backedge) resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical MagicUninitializedLexical 31 Constant shape at 31bba156fc20 Shape 32 Constant 0x0 I[0, 0]: Int32 33 Constant string 31bba152d780 String 34 Constant string 31bba152be60 String 35 NewPlainObject ← Constant#31 Object 36 GuardShape ← NewPlainObject#35 Object memory 16 37 Elements ← GuardShape#36 Elements memory 29 38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33 39 Constant 0x1

40 Elements ← GuardShape#36 Elements memory 38 41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34 42 Elements ← GuardShape#36 Elements memory 41 43 InitializedLength ← Elements#42 I[0, 268435444]: Int32 memory 41 44 BoundsCheck ← Constant#39, InitializedLength#43 I[1, 1]: Int32 I[1, 1]: Int32

45 SpectreMaskIndex ← BoundsCheck#44, InitializedLength#43

46 LoadElement ← Elements#42, SpectreMaskIndex#45

memory 41

47 Add ← Phi#26, Constant#39 [int32]

48 Goto → block 3

./Benchmarkers/prop_access.js:2 - Edge Case Analysis (Late) movable, guard, in worklist, recovered on bailout

Block 0		
resumepoint 2 2 2 1 0 2 2		
<pre>0 Parameter THIS_SLOT</pre>	Value	
1 Parameter 0	Value	
2 Constant undefined	Undefined	
3 Start		
4 CheckOverRecursed		
5 Constant 0x0	I[0, 0]: Int32	
$6 \text{ Box} \leftarrow \text{Constant#2}$	Value	
7 Goto \rightarrow block 2		
<u></u>		

Block 1	
resumepoint 15 14 13 12 11 10 9	
8 OsrEntry	Pointer
9 Constant undefined	Undefined
10 OsrReturnValue ← OsrEntry#8	Value
11 Parameter THIS_SLOT	Value
12 Parameter 0	Value
13 OsrValue ← OsrEntry#8	Value
14 OsrValue ← OsrEntry#8	Value
15 OsrValue ← OsrEntry#8	Value
16 Start	
17 <u>Unbox OsrValue#13 to Int32 (fallible)</u>	Int32
18 Goto → block 2	

Block 2 resumepoint 23 23 22 21 20 19 23 19 Phi ← Box#6, OsrReturnValue#10 Value 20 Phi ← Parameter#0, Parameter#11 Value 21 Phi ← Parameter#1, Parameter#12 Value 22 Phi ← Constant#5, Unbox#17 Int32 23 Constant magic optimized-out MagicOptimizedOut 24 Unbox Phi#21 to Int32 (fallible) Int32 25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Bool

Block 4 (backedge)

30 Constant magic uninitialized-lexical

resumepoint 23 23 26 21 20 19 23

31 Constant shape at 31bba156fc20

32 Constant 0x0

33 Constant string 31bba152d780

34 Constant string 31bba152be60

35 NewPlainObject ← Constant#31

36 GuardShape ← NewPlainObject#35

memory 16

37 Elements ← GuardShape#36

memory 29

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1

40 Elements ← GuardShape#36 memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

42 Elements ← GuardShape#36

memory 41

43 InitializedLength ← Elements#42 memory 41

44 BoundsCheck ← Constant#39, InitializedLength#43

45 SpectreMaskIndex ← BoundsCheck#44, InitializedLength#43

46 LoadElement ← Elements#42. SpectreMaskIndex#45 memory 41

47 Add ← Phi#26, Constant#39 [int32]

48 Goto → block 3

MagicUninitializedLexical

Shape

I[0, 0]: Int32

String

String

Object

Object

Elements

I[1, 1]: Int32

Elements

I[0, 268435444]: Int32

I[-2147483647, 2147483647]: Int32

I[1, 1]: Int32

I[1, 1]: Int32

Value

Elements

resumepoint 23 23 26 21 20 19 23 49 Return ← Phi#19

Block 5

./Benchmarkers/prop_access.js:2 - Bounds Check Elimination movable, guard, in worklist, recovered on bailout

Block 0	
resumepoint 2 2 2 1 0 2 2	<u>. </u>
0 Parameter THIS_SLOT	Value
1 Parameter 0	Value
2 Constant undefined	Undefined
3 Start	
4 CheckOverRecursed	
5 Constant 0x0	I[0, 0]: Int32
6 Box ← Constant#2	Value

```
Block 1
   resumepoint 15 14 13 12 11 10 9
 8 OsrEntry
                                           Pointer
 9 Constant undefined
                                        Undefined
10 OsrReturnValue ← OsrEntry#8
                                            Value
11 Parameter THIS_SLOT
                                            Value
12 Parameter 0
                                            Value
13 OsrValue ← OsrEntry#8
                                            Value
14 OsrValue ← OsrEntry#8
                                            Value
15 OsrValue ← OsrEntry#8
                                            Value
16 Start
17 Unbox OsrValue#13 to Int32 (fallible)
                                            Int32
18 Goto \rightarrow block 2
```

Block 2 resumepoint 23 23 22 21 20 19 23 19 Phi ← Box#6, OsrReturnValue#10 Value 20 Phi ← Parameter#0, Parameter#11 Value 21 Phi ← Parameter#1, Parameter#12 Value Int32 22 Phi ← Constant#5, Unbox#17 23 Constant magic optimized-out MagicOptimizedOut 24 Unbox Phi#21 to Int32 (fallible) Int32 25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

 $7 \text{ Goto} \rightarrow \text{block } 2$

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test \leftarrow Compare #28 \rightarrow block 4, block 5

Bool

Block 4 (backedge)

resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical

31 Constant shape at 31bba156fc20

32 Constant 0x0

33 Constant string 31bba152d780

34 Constant string 31bba152be60

35 NewPlainObject ← Constant#31

36 GuardShape ← NewPlainObject#35

memory 16

37 Elements ← GuardShape#36

memory 29

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1

40 Elements ← GuardShape#36

memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

42 Elements ← GuardShape#36 memory 41

43 InitializedLength ← Elements#42

memory 41

44 BoundsCheck ← Constant#39, InitializedLength#43

45 SpectreMaskIndex ← Constant#39, InitializedLength#43

46 LoadElement ← Elements#42. SpectreMaskIndex#45

memory 41

47 Add ← Phi#26, Constant#39 [int32]

48 Goto \rightarrow block 3

MagicUninitializedLexical

Shape

I[0, 0]: Int32

String

String

Object

Object

Elements

I[1, 1]: Int32

Elements

Elements

I[0, 268435444]: Int32

I[1, 1]: Int32

I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

./Benchmarkers/prop_access.js:2 - Shape Guard Elimination movable, guard, in worklist, recovered on bailout

Block 0		
resumepoint 2 2 2 1 0 2 2	_	
0 Parameter THIS_SLOT	Value	
1 Parameter 0	Value	
2 Constant undefined	Undefined	
3 Start		
4 CheckOverRecursed		
5 Constant 0x0	I[0, 0]: Int32	
6 Box ← Constant#2	Value	
7 Goto → block 2		

```
Block 1
   resumepoint 15 14 13 12 11 10 9
 8 OsrEntry
                                           Pointer
 9 Constant undefined
                                        Undefined
10 OsrReturnValue ← OsrEntry#8
                                            Value
11 Parameter THIS_SLOT
                                            Value
12 Parameter 0
                                            Value
13 OsrValue ← OsrEntry#8
                                            Value
14 OsrValue ← OsrEntry#8
                                            Value
15 OsrValue ← OsrEntry#8
                                            Value
16 Start
17 Unbox OsrValue#13 to Int32 (fallible)
                                            Int32
18 Goto \rightarrow block 2
```

Block 2 resumepoint 23 23 22 21 20 19 23 19 Phi ← Box#6, OsrReturnValue#10 Value 20 Phi ← Parameter#0, Parameter#11 Value 21 Phi ← Parameter#1, Parameter#12 Value Int32 22 Phi ← Constant#5, Unbox#17 23 Constant magic optimized-out MagicOptimizedOut 24 Unbox Phi#21 to Int32 (fallible) Int32 25 Goto \rightarrow block 3

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Block 4 (backedge)

resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical

31 Constant shape at 31bba156fc20

32 Constant 0x0

33 Constant string 31bba152d780

34 Constant string 31bba152be60

35 NewPlainObject ← Constant#31

36 GuardShape ← NewPlainObject#35

memory 16

37 Elements ← GuardShape#36

memory 29

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1

40 Elements ← GuardShape#36

memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

42 Elements ← GuardShape#36 memory 41

43 InitializedLength ← Elements#42 memory 41

44 BoundsCheck ← Constant#39, InitializedLength#43

45 SpectreMaskIndex ← Constant#39, InitializedLength#43

46 LoadElement ← Elements#42. SpectreMaskIndex#45 memory 41

47 Add ← Phi#26, Constant#39 [int32]

48 Goto \rightarrow block 3

MagicUninitializedLexical

Bool

Shape

I[0, 0]: Int32

String

String

Object

Object

Elements

I[1, 1]: Int32

Elements

Elements

I[0, 268435444]: Int32

I[1, 1]: Int32 I[1, 1]: Int32

Value

I[-2147483647, 2147483647]: Int32

./Benchmarkers/prop_access.js:2 - GC Barrier Elimination movable, guard, in worklist, recovered on bailout

	Block 1	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	resumepoint 15 14 13 12 11 10 9 8 OsrEntry 9 Constant undefined 10 OsrReturnValue ← OsrEntry#8 11 Parameter THIS_SLOT 12 Parameter 0 13 OsrValue ← OsrEntry#8 14 OsrValue ← OsrEntry#8 15 OsrValue ← OsrEntry#8 15 OsrValue ← OsrEntry#8 16 Start 17 Unbox OsrValue#13 to Int32 (fallible) 18 Goto → block 2	Pointer Undefined Value Value Value Value Value Value Int32
resumepoint 23 23 22 23		
19 Phi ← Box#6, OsrReturn		
20 Phi ← Parameter#0, Parameter#11 Value		
21 Phi ← Parameter#1, Parameter#12 Value		
22 Phi ← Constant#5, Unbox#17 Int32		
23 Constant magic optimize	<u> </u>	
24 <u>Unbox Phi#21 to Int32 (</u>	<u>(fallible)</u> Int32	
25 Goto → block 3		

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Block 4 (backedge)

resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical Magic Uninitialized Lexical31 Constant shape at 31bba156fc20 Shape 32 Constant 0x0 I[0, 0]: Int32 33 Constant string 31bba152d780 String 34 Constant string 31bba152be60 String 35 NewPlainObject \leftarrow Constant#31 Object 36 GuardShape ← NewPlainObject#35 Object memory 16

37 Elements ← GuardShape#36 memory 29

Elements

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1 I[1, 1]: Int32 40 Elements ← GuardShape#36 Elements

memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

memory 41

42 Elements ← GuardShape#36 Elements

43 InitializedLength ← Elements#42 memory 41

I[0, 268435444]: Int32

44 BoundsCheck ← Constant#39, InitializedLength#43

I[1, 1]: Int32

Bool

45 SpectreMaskIndex ← Constant#39, InitializedLength#43

I[1, 1]: Int32

46 LoadElement ← Elements#42, SpectreMaskIndex#45 memory 41

Value

47 Add ← Phi#26, Constant#39 [int32]

I[-2147483647, 2147483647]: Int32

48 Goto → block 3

./Benchmarkers/prop_access.js:2 - FoldLoadsWithUnbox movable, guard, in worklist, recovered on bailout

	Block 1	
	resumepoint 15 14 13 12 11 10 9	
Block 0	8 OsrEntry	Pointer
resumepoint 2 2 2 1 0 2 2	9 Constant undefined	Undefined
0 Parameter THIS_SLOT Value	10 OsrReturnValue ← OsrEntry#8	Value
1 Parameter 0 Value	11 Parameter THIS SLOT	Value
2 Constant undefined Undefined	12 Parameter 0	Value
3 Start	13 OsrValue ← OsrEntry#8	Value
4 CheckOverRecursed	14 OsrValue ← OsrEntry#8	Value
5 Constant 0x0 I[0, 0]: Int32	15 OsrValue ← OsrEntry#8	Value
6 Box ← Constant#2 Value	16 Start	varue
7 Goto → block 2	17 <u>Unbox OsrValue#13 to Int32 (fallible</u>)	l Int32
	`	1111.52
	18 Goto → block 2	
BI	lock 2	
resumepoint 23 23 22 21	20 19 23	
19 Phi ← Box#6, OsrReturn	Value#10 Value	
20 Phi ← Parameter#0, Parameter#11 Value		
21 Phi ← Parameter#1, Parameter#12 Value		
22 Phi ← Constant#5, Unbox#17 Int32		
23 Constant magic optimized-out MagicOptimizedOut		
24 <u>Unbox Phi#21 to Int32 (</u>	5 -	
$25 \text{ Goto} \rightarrow \text{block } 3$		
20 3000 1 210011 0		

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

Block 4 (backedge) resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical Magic Uninitialized Lexical31 Constant shape at 31bba156fc20 Shape 32 Constant 0x0 I[0, 0]: Int32 33 Constant string 31bba152d780 String 34 Constant string 31bba152be60 String 35 NewPlainObject \leftarrow Constant#31 Object 36 GuardShape ← NewPlainObject#35 Object memory 16 37 Elements ← GuardShape#36 Elements memory 29

38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33

39 Constant 0x1

I[1, 1]: Int32 40 Elements ← GuardShape#36 Elements

memory 38

41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

42 Elements ← GuardShape#36

Elements memory 41 43 InitializedLength ← Elements#42

memory 41 44 BoundsCheck ← Constant#39, InitializedLength#43

I[0, 268435444]: Int32

45 SpectreMaskIndex ← Constant#39, InitializedLength#43

I[1, 1]: Int32

I[1, 1]: Int32

Bool

46 LoadElement ← Elements#42, SpectreMaskIndex#45

Value

memory 41

47 Add ← Phi#26, Constant#39 [int32] 48 Goto → block 3

I[-2147483647, 2147483647]: Int32

./Benchmarkers/prop_access.js:2 - Add KeepAlive Instructions movable, guard, in worklist, recovered on bailout

Pointer

Value

Value Value

Value

Value

Value

Int32

Bool

Undefined

Block 0 resumepoint 2 2 2 1 0 2 2 0 Parameter THIS_SLOT Value 1 Parameter 0 Value 2 Constant undefined Undefined 3 Start 4 CheckOverRecursed 5 Constant $0x0$ I[0, 0]: Int32 6 Box ← Constant#2 Value 7 Goto → block 2	Block 1 resumepoint 15 14 13 12 11 10 9 8 OsrEntry 9 Constant undefined 10 OsrReturnValue ← OsrEntry#8 11 Parameter THIS_SLOT 12 Parameter 0 13 OsrValue ← OsrEntry#8 14 OsrValue ← OsrEntry#8 15 OsrValue ← OsrEntry#8 15 OsrValue ← OsrEntry#8
	17 <u>Unbox OsrValue#13 to Int32 (fallible)</u> 18 Goto → block 2
Block 2 resumepoint 23 23 22 21 20 19 23	
19 Phi ← Box#6, OsrRetu 20 Phi ← Parameter#0, F	
21 Phi ← Parameter#1, F	

22 Phi ← Constant#5, Unbox#17 23 Constant magic optimized-out

25 Goto \rightarrow block 3

24 Unbox Phi#21 to Int32 (fallible)

Block 3 (loop header)

resumepoint 23 23 26 21 20 19 23

26 Phi ← Phi#22, Add#47

I[-2147483648 {#22}, 2147483647 {[loop] #24-1}]: Int32

MagicOptimizedOut

Int32

Int32

27 InterruptCheck

28 Compare ← Phi#26, Unbox#24 Lt

29 Test ← Compare#28 → block 4, block 5

resumepoint 23 23 26 21 20 19 23 30 Constant magic uninitialized-lexical MagicUninitializedLexical 31 Constant shape at 31bba156fc20 Shape 32 Constant 0x0 I[0, 0]: Int32 33 Constant string 31bba152d780 String 34 Constant string 31bba152be60 String 35 NewPlainObject ← Constant#31 Object 36 GuardShape ← NewPlainObject#35 Object memory 16 37 Elements ← GuardShape#36 Elements memory 29 38 StoreElementHole ← GuardShape#36, Elements#37, Constant#32, Constant#33 39 Constant 0x1 I[1, 1]: Int32 40 Elements ← GuardShape#36 Elements memory 38 41 StoreElementHole ← GuardShape#36, Elements#40, Constant#39, Constant#34

Block 4 (backedge)

memory 41 75 <u>DebugEnterGCUnsafeRegion</u>

42 Elements ← GuardShape#36

73 <u>DebugEnterGCUnsafeRegion</u>

43 InitializedLength ← Elements#42 I[0, 268435444]: Int32 memory 41

76 DebugLeaveGCUnsafeRegion

44 BoundsCheck ← Constant#39, InitializedLength#43

I[1, 1]: Int32 45 SpectreMaskIndex ← Constant#39, InitializedLength#43 I[1, 1]: Int32

46 LoadElement ← Elements#42, SpectreMaskIndex#45 memory 41

74 DebugLeaveGCUnsafeRegion

47 Add ← Phi#26, Constant#39 [int32]

48 Goto \rightarrow block 3

Elements

Value

I[-2147483647, 2147483647]: Int32

resumepoint 23 23 26 21 20 19 23 49 Return ← Phi#19

Block 5

./Benchmarkers/prop_access.js:2 - Generate LIR

movable, guard, in worklist, recovered on bailout

Block 0

- 1 $\{v1 < x > :arg:0\} \leftarrow parameter$
- $2 \{v2 < x > :arg:8\} \leftarrow parameter$
- 3 checkoverrecursed
- 4 osipoint
- $5 \{v3 < x >\} \leftarrow value$
- $6 \{v4 < i >\} \leftarrow integer(0)$
- 7 goto s=(block 2)

Block 1

- $8 \{v6 < g > : rcx\} \leftarrow osrentry t = (v5 < g >)$
- 9 $\{v7 < x >\}$ \leftarrow osrreturnvalue (v6:R)
- 10 $\{v8 < x > :arg:0\} \leftarrow parameter$
- 11 $\{v9 < x > :arg:8\} \leftarrow parameter$
- 12 $\{v10 < x >\} \leftarrow osrvalue (v6:R)$
- 13 $\{v11 < x >\} \leftarrow osrvalue (v6:R)$
- 14 $\{v12 < x >\}$ \leftarrow osrvalue (v6:R)
- 15 $\{v13 < i >\} \leftarrow unbox (v10:R)$
- 16 goto s = (block 2)

Block 2

- 17 $\{v14 < x >\} \leftarrow phi(v3:A), (v7:A)$
- 18 $\{v15 < x >\} \leftarrow phi (v1:A), (v8:A)$
- 19 $\{v16 < x >\} \leftarrow phi (v2:A), (v9:A)$
- 20 $\{v17 < i >\} \leftarrow phi (v4:A), (v13:A)$
- 21 $\{v18 < i >\} \leftarrow unbox (v16:R)$
- 22 goto s=(block 3)

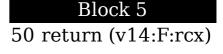
Block 3

- 23 $\{v19 < i >\}$ $\leftarrow phi (v17:A), (v41:A)$
- 24 interruptcheck
- 25 osipoint
- 26 compareandbranch (v19:R), (v18:A) s=(block 4, block 5)

$\int_{lacksquare} 1$

Block 4

- $27 \{v23 < o >\} \leftarrow \text{newplainobject } t=(v20 < g >, v21 < g >, v22 < g >)$
- 28 osipoint
- 29 $\{v25 < o > : tied(0)\} \leftarrow guardshape (v23:R) t = (v24 < g >)$
- $30 \{v26 < s >\} \leftarrow elements (v25:R)$
- $31 \{v27 < i >\} \leftarrow integer(0)$
- 32 storeelementholet (v25:R), (v26:R), (v27:R), (string) t=(v28 < g > t)
- 33 osipoint
- $34 \{v29 < s >\} \leftarrow elements (v25:R)$
- $35 \{v30 < i >\} \leftarrow integer (1)$
- 36 storeelementholet (v25:R), (v29:R), (v30:R), (string) t=(v31 < g > t)
- 37 osipoint
- $38 \{v32 < s >\} \leftarrow elements (v25:R)$
- 39 debugentergcunsaferegion t=(v33 < g>)
- 40 debugentergcunsaferegion t=(v34 < g>)
- 41 $\{v35 < i >\} \leftarrow initializedlength (v32:R)$
- 42 debugleavegcunsaferegion t=(v36 < g>)
- 43 boundscheck (1), (v35:A)
- 44 $\{v37 < i >\} \leftarrow integer (1)$
- 45 $\{v38 < i >\} \leftarrow spectremaskindex (v37:R), (v35:A)$
- 46 $\{v39 < x >\} \leftarrow loadelementv (v32:R), (v38:R)$
- 47 debugleavegcunsaferegion t=(v40 < g>)
- 48 $\{v41 < i > : tied(0)\} \leftarrow addi (v19:R), (1)$
- 49 goto s=(block 3)



./Benchmarkers/prop_access.js:2 - Allocate Registers [Backtracking]

movable, guard, in worklist, recovered on bailout

Block 0

- 1 $\{v1 < x > :arg:0\} \leftarrow parameter$
- 2 $\{v2 < x > :arg:8\} \leftarrow parameter$
- 3 checkoverrecursed
- 4 osipoint
- $5 \{v3 < x > :rbx\} \leftarrow value$
- 6 $\{v4 < i > : rax\} \leftarrow integer (0)$
- 0 movegroup [arg:0 \rightarrow r8, x]
- 7 qoto s = (block 2)

Block 1

- 8 $\{v6 < g > : rcx\} \leftarrow osrentry t = (v5 < g > : rax)$
- 9 $\{v7 < x > :rbx\} \leftarrow osrreturnvalue (rcx)$
- 10 $\{v8 < x > :arg:0\} \leftarrow parameter$
- 11 $\{v9 < x > :arg:8\} \leftarrow parameter$
- 12 $\{v10 < x > : rdx\} \leftarrow osrvalue(rcx)$
- 13 $\{v11 < x > :rsi\} \leftarrow osrvalue (rcx)$
- 14 $\{v12 < x > :rdi\} \leftarrow osrvalue (rcx)$
- 15 $\{v13 < i > : rax\} \leftarrow unbox (rdx)$
- 0 movegroup [arg:0 \rightarrow r8, x]
- 16 qoto s=(block 2)

Block 2

- 17 $\{v14 < x >\} \leftarrow phi(v3:A), (v7:A)$
- 18 $\{v15 < x >\} \leftarrow phi(v1:A), (v8:A)$
- 19 $\{v16 < x >\} \leftarrow phi(v2:A), (v9:A)$
- 20 $\{v17 < i >\} \leftarrow phi (v4:A), (v13:A)$
- 0 movegroup [arg:8 \rightarrow rcx, x]
- 21 $\{v18 < i > :rdx\} \leftarrow unbox (rcx)$
- 0 movegroup [rbx \rightarrow r12, x], [arg:8 \rightarrow r9, x]
- 22 goto s=(block 3)

Block 3

- 23 $\{v19 < i >\} \leftarrow phi (v17:A), (v41:A)$
- 24 interruptcheck
- 25 osipoint
- 26 compareandbranch (rax), (rdx) s=(block 4, block 5)

▼

Block 4

- 27 $\{v23 < o > :rbx\} \leftarrow newplainobject t = (v20 < g > :rsi, v21 < g > :rcx, v22 < g > :rdi)$
- 28 osipoint
 - 0 movegroup [rbx \rightarrow r10, o]
- 29 $\{v25 < o > :rbx\} \leftarrow guardshape (rbx) t = (v24 < g > :rcx)$
- 30 $\{v26 < s > : rcx\} \leftarrow elements (rbx)$
- 31 $\{v27 < i > :rsi\} \leftarrow integer (0)$
- 32 storeelementholet (rbx), (rcx), (rsi), (string) t=(v28 < g > :rdi)
- 33 osipoint
- $34 \{v29 < s > :rcx\} \leftarrow elements (rbx)$
- $35 \{v30 < i > :rsi\} \leftarrow integer (1)$
- 36 storeelementholet (rbx), (rcx), (rsi), (string) t=(v31<g>:rdi)
- 37 osipoint
- 38 $\{v32 < s > :rbx\} \leftarrow elements (rbx)$
- 39 debugentergcunsaferegion t=(v33 < g > :rcx)
- 40 debugentergcunsaferegion t=(v34<g>:rcx)
- 41 $\{v35 < i > : rcx\} \leftarrow initialized length (rbx)$
- 42 debugleavegcunsaferegion t=(v36<g>:rsi)
- 43 boundscheck (1), (rcx)
- 44 $\{v37 < i > :rdi\} \leftarrow integer (1)$
- 45 {v38<i>:rsi} ← spectremaskindex (rdi), (rcx)
- 46 $\{v39 < x > : rcx\} \leftarrow loadelementv (rbx), (rsi)$
- 47 debugleavegcunsaferegion t=(v40 < g > :rcx)
- 48 $\{v41 < i > :rax\} \leftarrow addi (rax), (1)$
- 49 goto s = (block 3)

Block 5

0 movegroup $[r12 \rightarrow rcx, x]$

50 return (rcx)