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**ANÁLISE COMPARATIVA ENTRE DIFERENTES MÉTODOS DE  
COLISÃO 2D NA UNITY**

TRABALHO DE CONCLUSÃO DE CURSO

CORNÉLIO PROCÓPIO

2019

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**ANÁLISE COMPARATIVA ENTRE DIFERENTES MÉTODOS DE  
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Trabalho de Conclusão de Curso apresentada à disciplina de Trabalho de Conclusão de Curso da Universidade Tecnológica Federal do Paraná como requisito parcial para obtenção do grau de Bacharel em Engenharia de Software.

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**CORNÉLIO PROCÓPIO**

**2019**

## RESUMO

MORETTO, Rodrigo. Análise comparativa entre diferentes métodos de colisão 2D na Unity. f. Trabalho de Conclusão de Curso – Engenharia de Software, Universidade Tecnológica Federal do Paraná. Cornélio Procópio, 2019.

As colisões em jogos apresentam um fator importante durante seu desenvolvimento, pois elas irão influenciar no funcionamento da física e manipulação de eventos. Devido a isso, a escolha de qual o tipo de colisão deverá ser aplicada para determinado objeto ou evento deve ser bem organizada, com o intuito de causar o mínimo ou nenhuma falha durante a execução do jogo. Este trabalho apresentará as vantagens e desvantagens que cada colisão presente na plataforma de desenvolvimento de jogos (game engine) Unity oferece.

**Palavras-chave:** Jogos Digitais, Unity, Game Engine, Colisão, 2D, Desenvolvimento

## **ABSTRACT**

MORETTO, Rodrigo. Comparative analysis between different 2D collision methods on Unity. f. Trabalho de Conclusão de Curso – Engenharia de Software, Universidade Tecnológica Federal do Paraná. Cornélio Procópio, 2019.

Collisions in games present an important factor during its development, because they will conduct the operation of physics and event manipulation. Due to that, the choice of which collision type must be applied to a specific object or event should be well organized, with the intention to cause the minimum or no fail during the game execution. This work will show the advantages and disadvantages that each collision available on the game development platform (game engine) Unity can offer.

**Keywords:** Digital Games, Unity, Game Engine, Collision, 2D, Development

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## APÊNDICE A – TABELAS DE RESULTADOS - *BOX COLLIDER*

### A.1 *PRE-RUNTIME*

#### A.1.1 UM OBJETO

**Tabela 1:** 1 Objeto Pre-Runtime Box OnCollisionEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
60				
	0.8%	1	0.13	0

70				
170				

**Tabela 2:** 1 Objeto Pre-Runtime Box OnCollisionStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
70	0.6%	1	0.09	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
80	0.0%	1	0.00	0

	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
90	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.1%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
100				
170				

**Tabela 3:** 1 Objeto Pre-Runtime Box OnTriggerEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
40				
	2.0%	1	0.34	32
50				
170				

**Tabela 4:** 1 Objeto Pre-Runtime Box OnTriggerExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
60				
	0.6%	1	0.10	0
70				
170				

**Tabela 5:** 1 Objeto Pre-Runtime Box OnTriggerStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
40				
	0.5%	1	0.09	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
50	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
60	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
		1	0.00	0



70				
170				

**Tabela 6:** 1 Objeto Pre-Runtime Box Physics2DSimulate

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	1.4%	6	0.49	0
	0.6%	2	0.14	0
	0.6%	1	0.15	0
	1.8%	1	0.07	0
	0.5%	1	0.07	0
	0.4%	1	0.07	0
	0.4%	1	0.07	0
	0.4%	1	0.07	0
10	0.4%	1	0.07	0
	0.4%	1	0.07	0
	0.5%	1	0.08	0
	0.4%	1	0.07	0
	0.4%	1	0.07	0
	0.4%	1	0.07	0
	0.5%	1	0.08	0
	0.5%	1	0.07	0
	0.4%	1	0.08	0
	0.5%	1	0.08	0
20	0.5%	1	0.07	0

	0.4%	1	0.07	0
	0.4%	1	0.09	0
	0.5%	1	0.08	0
	0.5%	1	0.08	0
	0.4%	1	0.08	0
	0.5%	1	0.07	0
	0.4%	1	0.08	0
	0.5%	1	0.07	0
	0.4%	1	0.07	0
30	0.4%	1	0.07	0
	0.2%	1	0.07	0
	1.4%	1	0.13	0
	0.6%	1	0.07	0
	0.4%	1	0.07	0
	0.4%	1	0.08	0
	0.5%	1	0.08	0
	0.4%	1	0.08	0
	0.5%	1	0.08	0
	0.4%	1	0.08	0
40	0.4%	1	0.08	0
	0.4%	1	0.08	0
	0.5%	1	0.09	0
	0.6%	1	0.09	0
	3.2%	1	0.55	72
	1.4%	1	0.25	0
	0.6%	1	0.10	0
	0.5%	1	0.09	0
	0.5%	1	0.09	0
	0.6%	1	0.11	0
50	0.5%	1	0.09	0
	0.5%	1	0.09	0
	0.6%	1	0.10	0
	0.6%	1	0.11	0
	0.6%	1	0.09	0

	0.5%	1	0.09	0
	0.5%	1	0.09	0
	0.5%	1	0.09	0
	0.6%	1	0.09	0
	0.5%	1	0.09	0
60	0.5%	1	0.09	0
	0.5%	1	0.10	0
	0.3%	1	0.09	0
	0.8%	1	0.08	0
	0.7%	1	0.10	0
	0.5%	1	0.09	0
	0.6%	1	0.09	0
	1.2%	1	0.20	0
	0.5%	1	0.08	0
	0.5%	1	0.08	0
70	0.4%	1	0.07	0
	2.6%	1	0.41	3600
	1.6%	1	0.24	3600
	0.9%	1	0.16	3600
	0.9%	1	0.13	3600
	0.9%	1	0.15	3600
	0.8%	1	0.15	3600
	0.8%	1	0.14	3600
	0.8%	1	0.14	3600
80	0.8%	1	0.14	3600
	0.9%	1	0.14	3600
	0.8%	1	0.14	3600
	0.8%	1	0.14	3600
	0.9%	1	0.14	3600
	0.8%	1	0.14	3600
	0.8%	1	0.14	3600
	0.9%	1	0.14	3600
	0.8%	1	0.14	3600

	0.8%	1	0.14	3600
90	0.8%	1	0.14	3600
	0.9%	1	0.15	3600
	0.8%	1	0.14	3600
	0.5%	1	0.14	3600
	1.6%	1	0.20	3600
	2.1%	1	0.28	3600
	0.9%	1	0.14	3600
	0.9%	1	0.14	3600
	0.8%	1	0.14	3600
	0.8%	1	0.14	3600
100	0.8%	1	0.14	3600
	0.1%	1	0.02	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
110	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
120	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0

	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.1%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
130	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
140	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
150	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0

	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
160	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.2%	1	0.01	0
170	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.01	0
	0.0%	1	0.01	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0

#### A.1.2 DEZ OBJETOS

**Tabela 7:** 10 Objetos Pre-Runtime Box OnCollisionEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				

70	0.0%	1	0.00	0
	0.0%	2	0.00	0
	0.0%			
		1	0.00	0
	0.0%	4	0.00	0
	0.0%	4		
80			0.00	0
	0.0%	2		0
			0.00	
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
90				
270				

**Tabela 8:** 10 Objetos Pre-Runtime Box OnCollisionExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
80				
	0.4%	2	0.07	0
		4	0.00	0
90				
100	0.0%			



		2	0.00	0
110				
270				

**Tabela 9:** 10 Objetos Pre-Runtime Box OnCollisionStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	0.0%	12	0.02	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
10	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
20	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
30	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
40	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
50	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
60	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
70	0.0%	2	0.00	0
		2	0.00	0
	0.0%			0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	3	0.00	0
	0.0%	5	0.00	0

	0.0%	5	0.00	0
80	0.0%	5	0.00	0
	0.0%	5	0.00	0
	0.0%	5	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	14	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
90	0.0%	12	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.4%	16	0.03	0
100	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.1%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	14	0.00	0
110	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0

	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
120	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
130	0.0%	14	0.00	0
	0.2%	14	0.03	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
140	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0

	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
150	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
160	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.1%	14	0.00	0
	0.0%	14	0.02	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
170	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.01	0
	0.0%	14	0.00	0
	0.0%	14	0.00	
	0.0%	14	0.00	
		14	0.00	
180				

270				

**Tabela 10:** 10 Objetos Pre-Runtime Box OnTriggerEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
40				
	1.0%	1	0.09	0

50	0.0%	1	0.00	0
	0.0%			
60		1	0.00	0
	0.0%			
		1	0.00	0
	0.0%	1		
70				
			0.00	0
	0.0%	1		0
80				



270				

**Tabela 11:** 10 Objetos Pre-Runtime Box OnTriggerExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
60				
	0.5%	1	0.09	0

70				
		1	0.00	0
	0.0%			
		1	0.00	0
80				
270				

**Tabela 12:** 10 Objetos Pre-Runtime Box OnTriggerStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
40				
	0.6%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
50	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	1	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
60	0.0%	3	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	3	0.00	0
	0.0%	3	0.00	0
		3	0.00	
	0.0%	3	0.00	0
	0.0%	2	0.00	0
	0.0%			0
70	0.0%	2	0.00	0

	0.0%	3	0.00	0
	0.0%	2	0.00	0
	0.0%	3	0.00	0
	0.0%	3	0.01	0
	0.0%	3	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	1	0.00	0
	0.0%	2	0.00	0
80	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
90	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
100	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
110	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
120	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.1%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
130	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0

	0.0%	2	0.01	0
140	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
150	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.1%	2	0.01	0
160	0.1%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
170	0.1%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.01	0

	0.0%	2	0.01	0
		2	0.01	0
		2	0.00	0
		2	0.00	
		2	0.00	
180				
270				

**Tabela 13:** 10 Objetos Pre-Runtime Box Physics2DSimulate

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	2.0%	6	0.77	42700
	2.0%	2	0.28	14200
	2.3%	1	0.19	7100
	1.0%	1	0.16	7100
	0.9%	1	0.16	7100
	1.0%	1	0.16	7100
	0.8%	1	0.14	7100
	1.0%	1	0.16	7100
10	0.9%	1	0.17	7100
	1.1%	1	0.17	7100

	1.0%	1	0.17	7100
	1.0%	1	0.17	7100
	0.9%	1	0.16	7100
	1.1%	1	0.17	7100
	0.9%	1	0.16	7100
	1.0%	1	0.16	7100
	1.0%	1	0.17	7100
	1.1%	1	0.18	7100
20	1.0%	1	0.17	7100
	1.0%	1	0.17	7100
	0.9%	1	0.17	7100
	1.0%	1	0.17	7100
	0.9%	1	0.16	7100
	1.0%	1	0.16	7100
	0.9%	1	0.16	7100
	1.1%	1	0.18	7100
	0.9%	1	0.17	7100
	0.5%	1	0.16	7100
30	3.3%	1	0.30	7100
	2.3%	1	0.30	7100
	1.0%	1	0.16	7100
	1.0%	1	0.17	7100
	0.9%	1	0.17	7100
	0.9%	1	0.14	7100
	0.8%	1	0.15	7100
	1.0%	1	0.16	7100
	0.9%	1	0.16	7100
	0.9%	1	0.15	7100
40	0.8%	1	0.14	7100
	0.6%	1	0.15	7100
	3.3%	1	0.30	7100
	1.9%	1	0.31	7100
	0.8%	1	0.14	7100
	2.6%	1	0.44	7100



	0.8%	1	0.13	7100
	0.8%	1	0.13	7100
	0.9%	1	0.16	7100
	0.8%	1	0.13	7100
50	0.8%	1	0.13	7100
	0.9%	1	0.15	7100
	0.8%	1	0.13	7100
	0.9%	1	0.16	7100
	0.9%	1	0.15	7100
	0.7%	1	0.14	7100
	0.9%	1	0.13	7100
	1.0%	1	0.16	7100
	1.0%	1	0.17	7100
	1.0%	1	0.17	7100
60	0.7%	1	0.18	7100
	1.4%	1	0.15	7100
	1.1%	1	0.17	7100
	1.3%	1	0.19	7100
	0.9%	1	0.15	7100
	1.4%	1	0.24	7100
	1.0%	1	0.17	7100
	1.0%	1	0.18	7100
	1.1%	1	0.18	7100
70	1.2%	1	0.19	10700
	1.1%	1	0.19	17800
	1.1%	1	0.19	17800
	1.2%	1	0.20	17800
	1.2%	1	0.19	17800
	1.1%	1	0.19	17800
	1.3%	1	0.20	21300
	1.2%	1	0.21	35500
	1.2%	1	0.20	35500
	1.3%	1	0.21	35500

80	1.3%	1	0.21	42700
	1.2%	1	0.21	42700
	1.3%	1	0.21	49800
	1.8%	1	0.31	56900
	1.3%	1	0.22	49800
	1.3%	1	0.22	49800
	1.5%	1	0.26	49800
	1.2%	1	0.21	42700
	1.3%	1	0.23	56900
	1.3%	1	0.22	56900
90	1.4%	1	0.22	56900
	0.7%	1	0.22	56900
	6.0%	1	0.44	56900
	1.8%	1	0.29	56900
	1.9%	1	0.28	56900
	1.6%	1	0.28	56900
	1.3%	1	0.22	56900
	1.3%	1	0.22	56900
	1.4%	1	0.23	56900
	0.9%	1	0.23	56900
100	2.6%	1	0.22	56900
	1.4%	1	0.23	56900
	1.3%	1	0.22	49800
	1.4%	1	0.22	49800
	1.3%	1	0.22	49800
	1.3%	1	0.23	49800
	1.3%	1	0.22	49800
	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	1.4%	1	0.21	49800
110	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	1.3%	1	0.21	49800
	1.3%	1	0.22	49800

	1.3%	1	0.21	49800
	1.2%	1	0.22	49800
	1.5%	1	0.22	49800
	1.2%	1	0.21	49800
	1.4%	1	0.22	49800
	1.1%	1	0.21	49800
120	1.3%	1	0.21	49800
	0.8%	1	0.21	49800
	2.4%	1	0.28	49800
	1.7%	1	0.21	49800
	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	1.3%	1	0.21	49800
	1.2%	1	0.22	49800
	1.3%	1	0.21	49800
	1.3%	1	0.21	49800
130	1.3%	1	0.21	49800
	1.3%	1	0.22	49800
	1.3%	1	0.22	49800
	1.3%	1	0.22	49800
	1.3%	1	0.22	49800
	1.3%	1	0.22	49800
	2.3%	1	0.38	49800
	1.2%	1	0.30	49800
	2.9%	1	0.23	49800
	1.2%	1	0.21	49800
140	1.3%	1	0.21	49800
	1.3%	1	0.21	49800
	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	1.3%	1	0.21	49800
	1.3%	1	0.23	49800
	1.3%	1	0.21	49800
	1.2%	1	0.21	49800

	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
150	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	0.9%	1	0.22	49800
	2.6%	1	0.34	49800
	1.8%	1	0.21	49800
	1.2%	1	0.21	49800
	1.3%	1	0.21	49800
	1.3%	1	0.22	49800
	1.3%	1	0.23	49800
	1.3%	1	0.21	49800
160	1.3%	1	0.22	49800
	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	1.5%	1	0.28	49800
	1.4%	1	0.22	49800
	1.3%	1	0.21	49800
	1.2%	1	0.21	49800
	1.3%	1	0.21	49800
	0.9%	1	0.15	0
	0.7%	1	0.11	0
170	0.6%	1	0.11	0
	0.7%	1	0.12	0
	0.7%	1	0.11	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.11	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
180	0.9%	1	0.15	0
	0.7%	1	0.11	0

	0.7%	1	0.12	0
	0.4%	1	0.11	0
	1.3%	1	0.14	0
	1.7%	1	0.23	0
	0.7%	1	0.11	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.6%	1	0.12	0
190	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.11	0
	0.4%	1	0.12	0
	1.4%	1	0.12	0
	0.6%	1	0.11	0
	0.7%	1	0.12	0
	0.6%	1	0.11	0
200	0.7%	1	0.13	0
	1.0%	1	0.17	0
	0.7%	1	0.11	0
	0.6%	1	0.11	0
	0.8%	1	0.13	0
	0.7%	1	0.11	0
	0.7%	1	0.11	0
	0.7%	1	0.12	0
	1.1%	1	0.18	0
	0.7%	1	0.11	0
210	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.5%	1	0.12	0
	0.9%	1	0.10	0

	0.7%	1	0.12	0
	0.7%	1	0.12	0
	1.2%	2	0.21	0
220				
	0.6%	1	0.11	0
	0.7%	1	0.11	0
	0.8%	1	0.14	0
	0.6%	1	0.11	0
	0.7%	1	0.12	0
	0.6%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
230	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.8%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.5%	1	0.12	0
	0.8%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.11	0
240	0.7%	1	0.11	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.4%	1	0.12	0
	1.7%	1	0.16	0
	1.0%	1	0.12	0
	0.7%	1	0.11	0
	0.7%	1	0.12	0

250	0.7%	1	0.11	0
	0.6%	1	0.12	0
	0.7%	1	0.11	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.6%	1	0.12	0
260	0.8%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
	0.7%	1	0.12	0
270	0.4%	1	0.12	0
	1.1%	1	0.12	0
	0.9%	1	0.11	0
	0.6%	1	0.11	0
	0.6%	1	0.10	0
	0.6%	1	0.11	0
	0.4%	1	0.11	0
	1.6%	1	0.22	0
	0.6%	1	0.11	0
	0.0%	1	0.12	0

#### A.1.3 CINQUENTA OBJETOS

**Tabela 14:** 50 Objetos Pre-Runtime Box OnCollisionEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
60				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
70				
	0.0%	4	0.00	0
	0.0%	6	0.00	0



80	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
90				
	0.0%	2	0.00	0
	0.1%	12	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	14	0.01	0
	0.0%	12	0.00	0
	0.0%	8	0.00	0
100				
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	2	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
110	0.0%	10	0.01	0
	0.0%	14	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0

	0.0%	12	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
120	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.01	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
130	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
140	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0

	0.0%	6	0.00	0
	0.0%	2	0.00	0
150				
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
160				
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
170	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
180				

	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
190	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
200	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
210	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
220	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
230	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
240				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0

250				
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
260	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
270				
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
280				
	0.0%	2	0.00	0
	0.0%	4	0.01	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0

**Tabela 15:** 50 Objetos Pre-Runtime Box OnCollisionExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
80				
	0.8%	2	0.14	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
90				
	0.0%	4	0.00	0

	0.1%	12	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
100	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	10		0
			0.00	
	0.0%	6	0.00	0
	0.0%	12	0.00	0
110				
	0.0%	10	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
120	0.0%	10	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	8	0.00	0
	0.0%	10	0.00	0



	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
130	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	8	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
140	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	4		0
			0.00	
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
150				
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
160	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%			
		2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4		0
170				
			0.00	
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
180				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
190	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
200	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
210	0.0%			
		2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
220	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0

	0.0%	2		
230			0.00	0
	0.0%	2		0
			0.00	
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
240				
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
250	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%			
		2	0.00	0
	0.0%			
		2	0.00	0
260	0.0%	2		
			0.00	0
	0.0%	2	0.00	0

	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
270	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
280	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2		0
			0.00	

**Tabela 16:** 50 Objetos Pre-Runtime Box OnCollisionStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	0.1%	60	0.08	0

	0.1%	30	0.03	0
	0.1%	10	0.01	0
	0.1%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.1%	10	0.00	0
	0.0%	10	0.00	0
10	0.0%	10	0.06	0
	0.0%	10	0.06	0
	0.0%	10	0.01	0
	0.1%	10	0.00	0
	0.0%	10	0.00	0
	0.1%	10	0.01	0
	0.1%		0.01	
	0.1%	10	0.01	0
		10		0
	0.1%	10	0.01	0
20	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	20	0.00	0
	0.0%		0.02	
		10	0.01	0
	0.0%	10		0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
30	0.1%	10	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.1%	10	0.01	0
	0.0%	10	0.00	0
	0.1%	10	0.01	0
	0.0%	10	0.00	0

	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
40	0.1%	10	0.01	0
	0.1%	10	0.01	0
	0.1%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
	0.1%	10	0.01	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
50	0.0%	10	0.01	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
60	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.02	0
	0.0%	10	0.00	0
	0.4%	10	0.02	0
	0.0%	10	0.01	0
	0.1%	10	0.00	0
70	0.0%	10	0.01	0

	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.01	0
	0.1%	14	0.02	0
	0.0%	14	0.00	0
	0.1%	14	0.02	0
	0.0%	18	0.00	0
	0.0%	24	0.00	0
80	0.0%	24	0.01	0
	0.0%	26	0.01	0
	0.0%	26	0.01	0
	0.0%	24	0.01	0
	0.0%	24	0.01	0
	0.0%	26	0.01	0
	0.0%	26	0.01	0
	0.1%	28	0.02	0
	0.0%	28	0.01	0
	0.0%	32	0.01	0
90	0.0%	36	0.01	0
	0.1%	40	0.01	0
	0.1%	44	0.02	0
	0.1%	44	0.02	0
	0.1%	44	0.02	0
	0.1%	50	0.02	0
	0.1%	44	0.02	0
	0.0%	82	0.04	0
	0.1%	44	0.05	0
	0.1%	50	0.05	0
100	0.6%	48	0.02	0
	0.1%	46	0.02	0
	0.1%	50	0.04	0
	0.2%	58	0.05	0
	0.3%	66	0.05	0



	0.1%	72	0.02	0
	0.2%	70	0.05	0
	0.2%	74	0.03	0
	0.2%	72	0.03	0
	0.2%	66	0.03	
110	0.2%		0.04	0
	0.2%	68	0.03	0
	0.2%	90		0
		128	0.04	
	0.2%		0.07	0
	0.4%	58		0
		68	0.02	0
	0.1%	82	0.05	0
	0.2%	90	0.03	0
	0.2%	84	0.03	0
120	0.2%	90	0.05	0
	0.3%	96	0.05	0
	0.3%	96	0.05	0
	0.3%	102	0.04	0
	0.3%	98	0.05	0
	0.3%	92	0.06	0
	0.3%	94	0.06	0
	0.4%	74	0.04	0
	0.3%	92	0.05	0
	0.2%	178	0.18	0
130	0.8%	90	0.12	0
	1.3%	86	0.04	0
	0.3%	78	0.04	0
	0.4%	74	0.07	0
	0.2%	72	0.03	0
	0.4%	74	0.06	0
	0.4%	74	0.04	0
	0.2%	76	0.04	0
	0.2%	76	0.05	0

	0.3%	80	0.04	0
140	0.2%	74	0.04	0
	0.2%	78	0.04	0
	0.2%	76	0.03	0
	0.2%	74	0.04	0
	0.2%	72	0.04	0
	0.2%	70	0.03	0
	0.2%	66	0.04	0
	0.2%	68	0.03	0
	0.3%	76	0.06	0
	0.3%	82	0.05	0
150	0.1%	80	0.04	
	0.2%	78	0.04	0
	0.2%	78	0.10	
	0.2%	72	0.04	0
	0.2%		0.04	0
			0.04	0
	0.3%	74		0
		78	0.07	0
	0.2%	84		0
	0.3%	84	0.05	0
160	0.3%	80	0.05	0
	0.2%	82	0.04	0
	0.1%	82	0.04	0
	0.1%	162	0.15	0
	0.6%	78	0.10	0
	1.3%	78	0.10	0
	0.2%	78	0.04	0
	0.2%	78	0.04	0
	0.2%	78	0.05	0
	0.5%	82	0.07	0
170	0.3%	82	0.06	0
	0.3%	82	0.06	0
	0.3%	84	0.05	0

	0.3%	82	0.04	0
	0.4%	80	0.06	0
	0.2%	80	0.04	0
	0.2%	82	0.04	0
	0.3%	78	0.05	0
	0.3%	74	0.05	0
	0.2%	72	0.04	0
180	0.3%	72	0.06	0
	0.3%	74	0.05	0
	0.2%	74	0.04	0
	0.2%	76	0.04	0
	0.2%	76	0.04	0
	0.3%	78	0.05	0
	0.3%	78	0.05	0
	0.3%	80	0.05	0
	0.2%	82	0.04	0
	0.2%	82	0.04	0
190	0.2%	82	0.03	0
	0.3%	82	0.05	0
	0.4%	80	0.08	0
	0.1%	82	0.04	0
	0.2%	74	0.05	0
	0.9%	72	0.07	0
	0.3%	70	0.05	0
	0.2%	72	0.04	0
	0.2%	72	0.03	0
	0.2%	72	0.03	0
200	0.2%	72	0.03	0
	0.2%	72	0.03	0
	0.2%	70	0.04	0
	0.3%	70	0.05	0
	0.2%	70	0.03	0
	0.2%	72	0.04	0
	0.2%	70	0.03	0

	0.3%	70	0.06	0
	0.2%	74	0.03	0
	0.2%	74	0.04	0
210	0.2%	72	0.04	0
	0.2%	72	0.04	0
	0.3%	68	0.06	0
	0.2%	68	0.04	0
	0.2%	70	0.04	0
	0.2%	70	0.04	0
	0.3%	70	0.04	0
	0.2%	68	0.04	0
	0.2%	68	0.04	0
	0.2%	68	0.04	0
220	0.2%	66	0.04	0
	0.2%	68	0.04	0
	0.2%	66	0.03	0
	0.2%	64	0.05	0
	0.8%	62	0.19	0
	0.6%	62	0.03	0
	0.2%	64	0.03	0
	0.2%	62	0.03	0
	0.5%	62	0.10	0
	0.2%	60	0.04	0
230	0.2%	58	0.03	0
	0.2%	58	0.04	0
	0.2%	60	0.04	0
	0.2%	60	0.04	0
	0.2%	60	0.04	0
	0.2%	60	0.03	0
	0.2%	64	0.04	0
	0.2%	66	0.03	0
	0.3%	66	0.05	0
	0.2%	68	0.04	0
240	0.2%	70	0.03	0

	0.1%	68	0.03	0
	0.2%	70	0.03	0
	0.1%	68	0.03	0
	0.3%	64	0.03	0
	0.2%	62	0.05	0
	0.2%	66	0.04	0
	0.2%	68	0.03	0
	0.4%	68	0.05	0
	0.2%	64	0.04	0
250	0.2%	64	0.04	0
	0.2%	64	0.04	0
	0.2%	64	0.03	0
	0.1%	64	0.03	0
	0.3%	64	0.06	0
	0.6%	66	0.03	0
	0.2%	62	0.03	0
	0.2%	62	0.04	0
	0.3%	62	0.05	0
	0.2%	64	0.03	0
260	0.2%	64	0.04	0
	0.3%	62	0.04	0
	0.2%	62	0.04	0
	0.3%	62	0.05	0
	0.3%	58	0.04	0
	0.2%	56	0.04	0
	0.2%	58	0.04	0
	0.2%	60	0.04	0
	0.1%	60	0.03	0
	0.2%	58	0.03	0
270	0.2%	60	0.03	0
	0.3%	60	0.04	0
	0.2%	60	0.03	0
	0.2%	58	0.03	0
	0.2%	58	0.03	0

	0.2%	60	0.04	0
	0.2%	58	0.04	0
	0.2%	58	0.03	0
	0.3%	54	0.05	0
	0.2%	54	0.04	0
280	0.1%	56	0.02	0
	0.3%	54	0.05	0
	0.1%	54	0.03	0
	0.0%	52	0.02	0
	0.5%	56	0.09	0
	0.6%	52	0.03	0
	0.3%	48	0.05	0
	0.2%	48	0.03	0
	0.3%	48	0.06	0
	0.1%	48	0.02	0

**Tabela 17:** 50 Objetos Pre-Runtime Box OnTriggerEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
40	0.5%	2	0.08	0

	0.0%	4	0.00	0
	0.0%			
50				
		4	0.00	0
60	0.0%			
		2	0.00	0
	0.0%	2	0.00	0
	0.0%	2		0
70				
			0.00	
	0.0%	4	0.00	0

80				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
90	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
100				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
110				



	0.0%	2	0.00	0
	0.0%	2	0.00	0
120				
	0.0%	2	0.00	0
	0.0%			
130				
		2	0.00	0
	0.0%			
		2	0.00	0
	0.0%	2		
140				

			0.00	0
	0.0%	2		0
150				
180				
			0.00	
	0.0%	2	0.00	0
190				
	0.0%	2	0.00	0
200				
210				

	0.0%	2	0.00	0
220				
260				
	0.0%	2	0.00	0
270				
280				

**Tabela 18:** 50 Objetos Pre-Runtime Box OnTriggerExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
60				
	0.5%	2	0.08	0
	0.0%			
70		4	0.00	0
	0.0%			
	0.0%			
80				
		4	0.00	0
		2		

	0.0%			
90				
			0.00	0
		2		0
	0.0%	2		
			0.00	
				0
	0.0%	2		0
100				
			0.00	
			0.00	
	0.0%	2	0.00	0
			0.00	0
110				

120	0.0%	2		
				0
130				
	0.0%	2	0.00	
140				0
	0.0%	2	0.00	
				0
	0.0%	2	0.00	
				0
150				
180				

	0.0%	2	0.00	
				0
190				
	0.0%	2	0.00	
				0
	0.0%	2	0.00	
				0
				0
				0
	0.0%	2	0.00	
200				
				0
210				
	0.0%	2	0.00	

				0
220				
230				
		2	0.00	
				0
240				
260				



	0.0%			
270		2	0.00	
				0
280				

**Tabela 19:** 50 Objetos Pre-Runtime Box OnTriggerStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
40				
	0.5%	2	0.09	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
50	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.00	0
60	0.0%	6	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	8	0.01	0
	0.1%	8	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0

70	0.0%	8	0.00	0
	0.0%	8	0.00	0
	0.0%	8	0.00	0
	0.0%	12	0.01	0
	0.1%	12	0.01	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.02	0
	0.1%	12	0.00	0
	0.0%	12	0.00	0
80	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	8	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	30	0.00	0
90	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	30	0.00	0
	0.0%	16	0.00	0
	0.1%	16	0.03	0
	0.3%	16	0.02	0
	0.0%	14	0.00	0
100	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0

	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%		0.00	0
	0.0%	14	0.00	0
110	0.0%	26	0.00	0
	0.0%	14	0.01	0
	0.0%	14	0.01	0
		14		
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
120	0.0%	16	0.00	0
	0.0%	18	0.00	0
	0.5%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.01	0
	0.0%	32	0.00	0
	0.0%	16	0.00	0
	0.1%	18	0.02	0
130	0.5%	18	0.05	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.1%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	20	0.00	0
	0.0%	18	0.00	0

	0.0%	18	0.00	0
	0.0%	20	0.00	0
140	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	16	0.00	0
	0.0%		0.00	0
150	0.0%	32	0.00	0
	0.0%		0.00	0
	0.0%	18		
		18	0.01	0
	0.0%	18		
		18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.01	0
	0.0%	36	0.00	0
160	0.0%	18	0.00	0
	0.0%	18	0.01	0
	0.3%	18	0.02	0
	0.0%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
170	0.0%	18	0.01	0
	0.0%	18	0.00	0

	0.0%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
180	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	20	0.00	0
190	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.01	0
	0.1%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.1%	14	0.02	0
	0.0%	18	0.00	0
200	0.0%	18	0.00	0
	0.0%	14	0.01	0
	0.0%	16	0.00	0
	0.0%	14	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0

	0.0%	16	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
210	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.1%	14	0.01	0
	0.0%	14	0.02	0
	0.1%	14	0.01	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
220	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0
	0.3%	12	0.00	0
	0.5%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.08	0
	0.0%	12	0.02	0
	0.1%	14	0.00	0
230	0.0%	14	0.00	0
	0.0%	14	0.02	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0

240	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
250	0.0%	12	0.01	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.3%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
260	0.0%	12	0.00	0
	0.0%	12	0.02	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
270	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0



	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
280	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.1%	12	0.00	0
	0.0%	12	0.00	0
	0.6%	12	0.00	0
	0.0%	12	0.00	0
	0.1%	12	0.00	0
	0.0%	12	0.00	0

**Tabela 20:** 50 Objetos Pre-Runtime Box Physics2DSimulate

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	3.8%	6	1.80	213300
	10.0%	3	0.86	106600
	2.0%	1	0.85	35500
	2.0%	1	0.32	35500
	1.9%	1	0.28	35500
	1.6%	1	0.29	35500
	1.7%	1	0.33	35500
	2.1%	1	0.27	35500
10	1.7%	1	0.28	35500
	1.6%	1	0.33	35500
	1.7%	1	0.28	35500
	2.1%	1	0.58	
	1.7%	1	0.58	35500

	1.6%	1		35500
	1.7%	1	0.28	35500
			0.32	35500
	1.5%	1	0.33	35500
	1.7%	1	0.33	
20	1.6%	1	0.28	35500
	3.1%	1	0.27	35500
		1	0.57	35500
	1.6%	1		35500
	1.6%		0.28	35500
	1.7%	1	0.33	35500
	1.8%	1	0.27	35500
	1.7%	1	0.31	35500
	1.0%	1	0.28	35500
	6.2%	1	0.27	35500
30	1.7%	1	0.33	35500
	1.9%	1	0.28	35500
	2.0%	1	0.33	35500
	1.7%	1	0.31	35500
	1.9%	1	0.33	35500
	1.7%	1	0.31	35500
	1.8%	1	0.33	35500
	1.7%	1	0.33	35500
	1.9%	1	0.33	35600
	1.8%	1	0.39	35500
40	1.9%	1	0.36	35500
	2.4%	1	0.33	35500
	2.1%	1	0.33	35500
	1.9%	1	0.29	35500
	1.8%	1	0.28	35500
	2.3%	1	0.37	35500
	1.7%	1	0.29	35600
	1.8%	1	0.34	35500
	1.9%	1	0.29	35500

	2.0%	1	0.33	35500
50	1.8%	1	0.33	35500
	1.7%	1	0.29	42700
	1.9%	1	0.37	35500
	2.0%	1	0.28	35500
	1.8%	1	0.33	35500
	1.7%	1	0.28	35500
	1.9%	1	0.34	35500
	1.8%	1	0.37	42700
	1.7%	1	0.28	35500
	2.0%	1	0.31	35500
60	1.7%	1	0.37	42700
	1.8%	1	0.33	35600
	1.1%	1	0.54	35500
	3.0%	1	0.40	35500
	1.8%	1	0.34	35500
	7.7%	1	0.31	35500
	2.3%	1	0.37	42700
	2.5%	1	0.30	35500
	1.8%	1	0.46	35500
	2.2%	1	0.37	35500
70	1.7%	1	0.33	106600
	2.0%	1	0.32	42700
	2.4%	1	0.38	49800
	1.9%	1	0.32	49800
	2.5%	1	0.37	49800
	2.0%	1	0.44	49800
	2.2%	1	0.46	64000
	2.5%	1	0.40	106600
	1.9%	1	0.46	85300
	2.2%	1	0.43	106600
80	2.5%	1	0.37	85300
	2.5%	1	0.46	85300
	2.3%	1	0.40	106600

	2.4%	1	0.42	85300
	2.2%	1	0.42	92400
	2.5%	1	0.46	99500
	3.2%	1	0.70	106600
	3.4%	1	0.47	106600
	2.6%	1	0.52	270200
	2.8%	1	0.48	128000
90	2.9%	1	0.53	135100
	2.8%	1	0.46	156400
	3.2%	1	0.73	170600
	3.2%	1	0.70	163500
	3.2%	1	0.52	170700
	3.4%	1	0.70	170600
	1.6%	2	0.70	156400
	3.0%	1	0.55	270200
	17.4%	1	0.56	270200
	3.5%	1	0.70	270200
100	3.2%	1	0.60	184800
	3.4%	1	0.66	184800
	4.8%	1	0.75	206200
	4.1%	1	0.65	241700
	4.1%	1	0.68	270200
	3.7%	1	0.69	277300
	4.0%	1		369700
	4.1%		0.74	277300
	3.8%	1	1.13	284400
	4.8%	2		291500
110	4.1%		0.63	298600
		1	0.75	
	3.8%	1	0.80	270200
	4.8%	1	0.78	500000
		1	0.73	369700
	3.3%	1	0.75	
	4.8%	1	0.75	277300

	4.0%	1	0.72	277300
	4.0%	1	0.70	327000
	4.8%	1	0.69	348400
120	4.8%	1	0.75	369700
	4.4%	1	0.73	362700
	5.8%	1	1.67	369700
	4.6%	1	2.03	376800
	4.6%	1	0.69	369700
	5.0%	1	0.70	369700
	4.2%	1	0.69	383900
	5.8%	2	0.72	398100
	4.1%	1	0.84	284400
	2.7%	1	0.65	362600
130	7.9%	1	0.69	376800
	20.7%	1	0.69	376800
	5.3%	1	0.69	369700
	4.0%	1	0.71	284400
	4.0%	1	0.68	700000
	5.8%	1	0.71	327000
	3.9%	1	0.67	305700
	4.2%	1	0.69	284400
	4.1%	2	0.66	284400
	3.8%	1	0.69	284400
140	4.2%	1	0.69	284400
	4.2%	2	0.69	291500
	4.1%	1	0.64	291500
	3.8%	1	0.70	270200
	4.2%	1	0.64	277300
	4.0%	1	0.61	277300
	3.8%	1		298600
	4.4%	1	1.20	277300
	4.0%	1		284400
	4.0%		0.66	255900
150	4.0%	2	0.69	270200

	3.8%		0.67	284400
	3.6%	1	0.69	284400
		1	1.51	284400
	5.9%	1	1.64	277300
		1	0.72	
	3.8%	1	0.72	500000
	3.8%	1	0.77	
	5.6%	1	0.76	277300
	5.6%	2	1.26	298600
160	4.1%	1	0.94	305700
	2.4%	1	0.89	305700
	6.6%	1	0.96	312800
	21.4%	1	0.87	298600
	4.7%	1	0.71	305700
	5.0%	1	0.72	305700
	6.4%	1	0.72	600000
	7.2%	1	0.71	291500
	5.3%	1	0.68	291500
	5.6%	1	0.67	284400
170	5.2%	1	0.67	277300
	4.4%	1	0.65	298600
	4.3%	1	0.63	298600
	4.3%	1	0.62	305700
	3.8%	1	0.65	305700
	4.2%	1	0.63	305700
	4.2%	1	0.64	298600
	3.8%	1	0.62	291500
	4.0%	1	0.61	291500
	4.1%	1	0.64	298600
180	3.7%	1	0.66	284400
	3.7%	1	0.65	291500
	3.9%	1	0.65	263000
	3.8%	1	0.66	263000
	3.7%	1	0.65	263000

	3.8%	1	0.65	270200
	3.8%	1	0.68	270200
	4.1%	1	1.17	277300
	3.9%	1	0.77	284400
	3.9%	1	0.63	291500
190	3.8%	1	0.68	291500
	4.0%	1	0.63	298600
	2.2%	1	0.65	298600
	3.9%	1	0.66	291500
	5.3%	1	0.63	284400
	15.6%	1	0.64	291500
	4.9%	1	0.72	298600
	4.0%	1	0.65	291500
	3.5%	1	0.68	291500
	4.2%	1	0.63	284400
200	3.8%	1	0.67	263000
	3.9%	1	0.72	270200
	3.6%	1	0.65	277300
	4.2%	1	0.65	277300
	4.3%	1	0.62	270200
	4.3%	1	0.65	277300
	4.2%	1	1.08	284400
	3.9%	1	1.15	270200
	3.7%	1	0.72	270200
	4.2%	1	0.91	263000
210	4.0%	1	0.97	263000
	4.3%	1	0.67	255900
	3.6%	1	0.65	277300
	3.9%	1	0.62	270200
	6.5%	1	0.72	270200
	7.0%	1	0.61	263000
	5.3%	1	0.56	270200
	4.3%	1	0.64	270200
	3.9%	1	0.60	255900

	3.8%	1	2.08	255900
220	3.8%	1	0.65	263000
	3.8%	1	0.60	263000
	4.3%	1	0.92	263000
	3.7%	1	0.60	255900
	3.8%	1	0.56	220400
	8.8%	1	0.63	248800
	19.3%	1	0.60	255900
	3.8%	1	0.65	248800
	3.9%	1	0.57	248800
	3.8%	1	0.57	241700
230	4.8%	1	0.56	234600
	4.1%	1	0.64	234600
	3.6%	1	0.56	227500
	3.8%	1	0.57	220400
	4.0%	1	0.64	234600
	3.9%	1	0.59	234600
	3.4%	1	0.59	234600
	3.5%	1	0.60	220400
	3.5%	1	0.59	220400
	3.2%	1	0.64	248800
240	3.5%	1	0.60	220400
	3.8%	1	0.71	213300
	3.6%	1	0.64	227500
	3.5%	1	0.66	241700
	3.2%	1	0.63	248800
	4.0%	1	0.62	248800
	4.0%	1	0.62	255900
	2.7%	1	0.64	263000
	5.5%	1	0.58	248800
	4.1%	1	0.57	248800
250	3.4%	1	0.60	248800
	4.0%	1	0.84	241700
	3.7%	1	1.02	241700



	4.9%	1	0.57	241700
	3.7%	1	0.59	227500
	3.9%	1	0.58	248800
	3.3%	1	0.56	248800
	3.6%	1	0.59	241700
	1.9%	1	0.57	227500
	18.4%	1	0.60	234600
260	3.4%	1	0.59	234600
	3.5%	1	0.62	227500
	3.4%	1	0.62	234600
	3.4%	1	0.62	220400
	3.5%	1	0.62	234600
	3.4%	1	0.61	241700
	3.4%	1	0.57	234600
	3.4%	1	0.57	213300
	3.7%	1	0.60	234600
	3.7%	1	0.59	227500
270	3.5%	1	0.64	227500
	3.9%	1	0.59	227500
	3.2%	1	0.55	227500
	3.6%	1	0.54	227500
	3.5%	1	0.59	227500
	3.7%	1	0.59	227500
	3.7%	1	0.55	220400
	3.5%	1	0.66	220400
	3.3%	1	0.54	220400
	3.7%	1	0.55	227500
280	3.7%	1	1.12	227500
	3.4%	1	0.58	220400
	2.9%	1	1.02	220400
	4.4%	1	0.60	220400
	3.2%	1	0.55	220400
	1.8%	1	0.58	213300
	5.9%	1	0.72	213300

	18.1%	1	0.53	213300
	3.7%	1	0.54	213300
	3.3%	1	0.58	213300

#### A.1.4 CEM OBJETOS

**Tabela 21:** 100 Objetos Pre-Runtime Box OnCollisionEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
30				
	0.0%	8	0.00	0
	0.0%	4	0.00	0
40	0.0%			

		4	0.01	0
	0.0%	8	0.00	0
	0.0%	8	0.00	0
	0.0%	6		0
50			0.00	
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	20	0.01	0
	0.0%	12	0.00	0
	0.0%	6	0.00	0
60	0.1%	10	0.02	0
	0.0%	6	0.00	0
	0.1%	8	0.01	0
	0.1%	16	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	18	0.00	0
70	0.0%	30	0.01	0
	0.1%	24	0.02	0
	0.0%	12	0.00	0
	0.0%	8	0.00	0
	0.0%	18	0.00	0
	0.0%	10	0.00	0
	0.1%	6	0.01	0
	0.0%	8	0.00	0

	0.0%	4	0.00	0
	0.0%	16	0.00	0
80	0.0%	16	0.00	0
	0.0%	18	0.00	0
	0.0%	12	0.00	0
	0.0%	18	0.01	0
	0.0%	22	0.00	0
	0.0%	10	0.01	0
	0.2%	22	0.03	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	18	0.00	0
90	0.0%	22	0.00	0
	0.0%	20	0.00	0
	0.0%	24	0.01	0
	0.0%	14	0.00	0
	0.0%	20	0.00	0
	0.0%	8	0.00	0
	0.0%	18	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	18	0.00	0
100	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
110	0.0%	6	0.00	0
	0.0%	4	0.00	0

	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%	10	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	12	0.00	0
120	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
130	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
140	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
150	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
160	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	12	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
170	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%			
		10	0.00	0
	0.0%			

180		4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
190				
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
200	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	8	0.00	0
210	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	8	0.00	0
	0.0%	6	0.00	0

	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.01	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
220	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
230	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2		0
			0.00	
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
240	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	6	0.00	0



	0.0%	2	0.00	0
	0.0%	4	0.00	0
250	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
260	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	6		0
			0.00	
	0.0%	2	0.00	0
270	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
280	0.0%	4	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2		0
			0.00	
	0.0%	4	0.00	0
	0.0%	6	0.01	0
290	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
300	0.0%	8	0.00	0

**Tabela 22:** 100 Objetos Pre-Runtime Box OnCollisionExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				

40				
		2	0.13	0
50	0.0%			
	0.0%	2	0.00	0
	0.0%			0
	0.0%	4	0.00	
		6	0.00	0
	0.0%	4	0.00	0
	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%	12	0.00	0
				0
60				
	0.0%	4	0.00	
				0
	0.0%	2	0.00	
	0.0%	8	0.00	0
	0.0%	8	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	8	0.00	0
70	0.0%	8	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.00	0

	0.0%	6	0.00	0
	0.0%	10	0.00	0
	0.0%	18	0.00	0
	0.0%	8	0.00	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0
	0.0%	8	0.00	0
80	0.0%	14	0.00	0
	0.0%	18	0.00	0
	0.0%	6	0.00	0
	0.0%	12	0.00	0
	0.0%	10	0.00	0
	0.0%	4	0.00	0
	0.0%	18	0.00	0
	0.0%	10	0.00	0
	0.0%	18	0.01	0
	0.0%	18	0.00	0
90	0.1%	6	0.00	0
	0.0%	16	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.00	0
	0.0%	4	0.00	0
	0.0%	14	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	18	0.00	0
	0.0%	22	0.02	0
100	0.1%	6	0.00	0
	0.0%	16	0.00	0
	0.0%	12	0.00	0
	0.0%	10	0.00	0
	0.0%	16	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0

	0.0%	12	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
110	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
				0
	0.0%	10	0.00	
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
120	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	8		0
	0.0%		0.00	
		2	0.00	0
	0.0%	6	0.00	0
130	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	4		0
			0.00	0
140	0.0%	4		

			0.00	0
	0.0%	6	0.00	
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	2	0.00	0
150	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4		0
			0.00	
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
				0
160	0.0%	4	0.00	
				0
	0.0%	6	0.00	
	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%			
		4	0.00	0
	0.0%			
170		8	0.00	0
	0.0%	2		
	0.0%			
			0.00	0
		4	0.00	0

	0.0%	4		0
		2		
			0.00	
	0.0%		0.00	0
				0
180	0.0%	2	0.00	
	0.0%	4	0.00	0
				0
	0.0%	4	0.00	
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
190	0.0%	8	0.00	0
	0.0%			0
	0.0%	2	0.00	0
		6	0.00	
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	12	0.00	0
	0.0%	4	0.00	0
	0.0%	10	0.01	0
200	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.1%	16	0.02	0
	0.0%	6	0.01	0
	0.0%	2	0.00	0

	0.0%	8	0.00	0
210	0.0%	8	0.00	0
	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
				0
220				
	0.0%	8	0.00	
	0.0%	2	0.00	0
	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%			0
		6	0.00	0
	0.0%	8	0.00	
	0.0%	2		0
				0
230			0.00	0
	0.0%	6	0.00	
	0.0%			
		10	0.00	0
	0.0%	6	0.00	
	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	4	0.00	0
240	0.0%	2	0.00	0
	0.0%	8	0.00	0
	0.0%	8	0.00	0



	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
250	0.0%	4	0.00	0
	0.0%			
		2	0.00	0
	0.0%			
		4	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.02	0
	0.0%	10	0.00	0
	0.0%	4	0.00	0
260				0
	0.0%	6	0.00	
				0
	0.0%	2	0.00	
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
270				0
	0.0%	4	0.00	0
	0.0%	2	0.00	
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2		0

			0.00	
	0.0%	2	0.00	0
280	0.0%	2	0.00	0
				0
	0.0%	2	0.00	
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
290	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.01	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
300	0.0%	2	0.00	0

**Tabela 23:** 100 Objetos Pre-Runtime Box OnCollisionStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	0.0%	20	0.01	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.01	0
	0.0%	20	0.06	0

	0.0%	20	0.00	0
	0.0%	20	0.06	0
	0.0%	146	0.01	0
	0.0%	146	0.01	0
10	0.3%	20	0.00	0
	0.3%	20	0.00	0
	0.0%	20	0.01	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
20	0.0%	20	0.01	0
	0.0%	20	0.00	0
	0.2%		0.00	
	0.0%	20	0.01	0
		20		0
	0.0%	40	0.01	0
	0.2%		0.01	
		20		0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
30	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
	0.1%	20	0.00	0
	0.0%	20	0.00	0
	0.2%	20	0.01	0
	0.2%	20	0.01	0
	0.2%	20	0.03	0
	0.3%	20	0.04	0
	0.0%	20	0.01	0

40	0.1%	20	0.00	0
	0.0%	28	0.00	0
	0.1%	50	0.00	0
	0.3%	32	0.01	0
	0.1%	32	0.06	0
	0.2%	32	0.06	0
	0.0%	32	0.04	0
	0.1%	50	0.04	0
	0.1%	32	0.01	0
	0.1%	34	0.01	0
50	0.1%	48	0.01	0
	0.1%	48	0.04	0
	0.1%	50	0.01	0
	0.1%	48	0.02	0
	0.1%	50	0.01	0
	0.1%	52	0.01	0
	0.2%	58	0.02	0
	0.2%	58	0.04	0
	0.1%	58	0.04	0
	0.2%	100	0.02	0
60	0.2%	62	0.03	0
	0.2%	70	0.02	0
	0.2%	88	0.03	0
	0.2%	94	0.04	0
	0.2%	100	0.03	0
	0.2%	94	0.04	0
	0.5%	100	0.04	0
	0.3%	84	0.07	0
	0.2%	84	0.05	0
	0.2%	92	0.04	0
70	0.3%	100	0.03	0
	0.3%	104	0.04	0
	0.3%	112	0.03	0
	0.3%	134	0.04	0

	0.3%	150	0.05	0
	0.4%	152	0.04	0
	0.4%	160	0.06	0
	0.3%	154	0.06	0
	0.3%	162	0.06	0
	0.3%	164	0.07	0
80	0.4%	156	0.06	0
	0.4%	152	0.08	0
	0.3%	160	0.08	0
	0.3%	148	0.06	0
	0.3%	160	0.07	0
	0.5%	148	0.07	0
	0.4%	154	0.06	0
	0.4%	160	0.08	0
	0.4%	172	0.05	0
	0.6%	178	0.06	0
90	0.3%	182	0.08	0
	0.5%	182	0.09	0
	0.6%	176	0.08	0
	0.5%	176	0.07	0
	0.6%	218	0.07	0
	0.6%	192	0.07	0
	0.5%	206	0.08	0
	0.6%	218	0.08	0
	1.8%	216	0.09	0
	0.6%	222	0.08	0
100	0.5%	226	0.10	0
	0.7%	218	0.12	0
	0.4%	218	0.08	0
	0.5%	218	0.20	0
	0.4%	162	0.09	0
	0.4%	202	0.09	0
	0.4%	162	0.10	0
	0.4%	190	0.12	0

	0.4%	184	0.08	0
	0.4%	174	0.08	0
110	0.8%	166	0.08	0
	0.8%	172	0.09	0
	0.5%	166	0.07	0
	0.3%	166	0.07	0
	0.4%	160	0.07	0
	0.5%	162	0.09	0
	0.4%	162	0.07	0
	0.4%	158	0.07	0
	0.8%	160	0.08	0
	0.4%	164	0.06	0
120	0.8%	166	0.07	0
	0.5%	166	0.07	0
	0.6%	166	0.09	0
	0.5%	170	0.07	0
	0.5%	170	0.08	0
	0.4%	170	0.12	0
	0.5%	168	0.08	0
	0.5%	172	0.10	0
	0.4%	182	0.08	0
	0.3%	184	0.07	0
130	0.5%	184	0.07	0
	0.5%	178	0.08	0
	0.5%	170	0.08	0
	0.4%	174	0.17	0
	0.6%	170	0.07	0
	0.7%	172	0.10	0
	0.5%	178	0.07	0
	0.5%	180	0.13	0
	2.1%	192	0.08	0
	0.5%	184	0.08	0
140	0.4%	192	0.09	0
	0.5%	180	0.08	0

	0.4%	186	0.08	0
	2.1%	186	0.08	0
	0.6%	186	0.10	0
	0.5%	184	0.08	0
	0.5%	192	0.09	0
	0.4%	190	0.08	0
	2.1%	192	0.07	0
	0.5%	196	0.08	0
150	0.4%	196	0.10	0
	0.4%	192	0.08	0
	0.5%	178	0.08	
	0.4%	188		0
		188	0.11	0
	0.3%	184	0.16	0
	2.1%	178	0.10	0
	0.4%	178	0.07	0
	0.4%	178	0.08	0
	0.4%	182	0.07	0
160	0.4%	178	0.08	0
	0.3%		0.10	0
	1.7%	176	0.18	0
	0.4%	178	0.07	0
	0.5%	346	0.09	0
	0.4%	172	0.10	0
	0.4%	170	0.07	0
	0.5%	174	0.09	0
	0.4%	188	0.10	0
	0.5%	176	0.10	0
170	0.5%	178	0.08	0
	0.6%	178	0.10	0
	0.4%	172	0.07	0
	0.5%	188	0.10	0
	0.4%	182	0.07	0
	0.5%	180	0.10	0

	0.4%	180	0.07	0
	0.4%	188	0.09	0
	0.4%	180		
	0.4%	174	0.15	0
180	0.5%	176		0
	0.5%	180	0.10	
		184	0.07	0
	0.7%	182	0.10	0
		182	0.07	0
	0.4%	184	0.08	0
	0.4%		0.10	0
	0.5%	362	0.07	0
	0.5%		0.09	0
	0.4%	188	0.08	0
190	0.5%	188	0.07	0
	0.4%	180	0.09	0
	0.6%	196	0.08	0
	0.4%	196	0.25	0
	0.5%	196	0.10	0
	0.5%	180	0.12	0
	0.4%	196	0.07	0
	0.5%	196	0.19	0
	0.4%	198	0.09	0
	0.5%	194	0.09	0
200	0.4%	188	0.06	0
	0.5%	184	0.07	0
	1.8%	188	0.05	0
	0.5%	186	0.09	0
	1.2%	184	0.07	0
	0.3%	180	0.07	0
	0.7%	174	0.07	0
	0.4%	170	0.08	0
	1.2%	170	0.06	0
	0.5%	166	0.08	0



210	0.5%	162	0.06	0
	0.5%	162	0.07	0
	0.4%	150	0.10	0
	0.4%	150	0.09	0
	0.4%	158	0.07	0
	0.4%	158	0.07	0
	0.4%	156	0.07	0
	0.3%	160	0.06	0
	0.5%	162	0.07	0
	0.3%	160	0.06	0
220	0.4%	148	0.07	0
	0.3%	160	0.13	0
	0.4%	162	0.07	0
	0.4%	164	0.08	0
	0.4%	170	0.06	0
	0.4%	176	0.07	0
	0.4%	168	0.10	0
	0.4%	166	0.10	0
	0.7%	160	0.23	0
	0.4%	158	0.06	0
230	0.5%	156	0.07	0
	0.4%	162	0.07	0
	0.4%	164	0.06	0
	0.4%	140	0.08	0
	0.4%	148	0.08	0
	0.4%	148	0.08	0
	0.4%	164	0.08	0
	0.4%	160	0.07	0
	0.3%	160	0.06	0
	1.1%	156	0.07	0
240	0.4%	154	0.06	0
	0.4%	146	0.06	0
	1.7%	158	0.09	0
	0.4%	154	0.06	0

	0.5%	152	0.06	0
	0.4%	160	0.11	0
	0.4%	158	0.06	0
	1.2%	152	0.07	0
	0.4%	150	0.06	0
	0.5%	152	0.06	0
250	0.4%	150	0.06	0
	0.4%	150	0.06	0
	0.4%	146	0.07	0
	0.5%	154	0.07	0
	0.5%	146	0.07	0
	0.5%	148	0.23	0
	0.4%	146	0.06	0
	0.4%	146	0.06	0
	0.4%	146	0.06	0
	0.3%	150	0.06	0
260	0.5%	154	0.08	0
	0.3%	150	0.07	0
	0.4%	146	0.07	0
	0.5%	144	0.06	0
	0.4%	138	0.09	0
	0.4%	138	0.09	0
	0.4%	140	0.06	0
	0.3%	140	0.06	0
	0.4%	138	0.06	0
	0.3%	156	0.06	0
270	0.4%	138	0.09	0
	0.4%	146	0.07	0
	0.4%	146	0.09	0
	0.2%	148	0.06	0
	1.7%	146	0.06	0
	1.7%	146	0.07	0
	0.5%	146	0.06	0
	0.5%	148	0.08	0

	0.3%	150	0.07	0
	0.4%	148	0.10	0
280	0.4%	146	0.08	0
	0.4%	144	0.07	0
	0.4%	142	0.08	0
	0.5%	142	0.06	0
	0.5%	144	0.06	0
	0.5%	146	0.06	0
	0.4%	146	0.06	0
	0.3%	148	0.17	0
	0.4%	150	0.07	0
	0.5%	150	0.08	0
290	0.4%	150	0.08	0
	0.5%	152	0.07	0
	0.3%	150	0.25	0
	0.4%	146	0.08	0
	0.4%	148	0.11	0
	0.3%	148	0.06	0
	0.4%	148	0.07	0
	0.4%	148	0.07	0
	0.5%	150	0.07	0
	0.3%	150	0.08	0
300	1.1%	154	0.07	0

**Tabela 24:** 100 Objetos Pre-Runtime Box OnTriggerEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

	0.6%	2	0.09	0
10				
	0.0%	4	0.00	0
	0.0%			
20				
		4	0.00	0
30	0.0%			
		4	0.00	0
	0.0%	4	0.00	0
	0.0%	2		0
40				

			0.00	
	0.0%	4	0.00	0
50				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
60	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
70				
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
80	0.0%			
		2	0.00	0
	0.0%			
		2	0.00	0
	0.0%	2		
90				
			0.00	0
	0.0%	2		
100				
300				

**Tabela 25:** 100 Objetos Pre-Runtime Box OnTriggerExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
30				
	1.9%	2		0
			0.01	
40	0.0%	4		0
	0.0%			0
50				
			0.00	
		4		
	0.0%			0

			0.00	
		2		
	0.0%	2		0
60				
			0.00	
	0.0%	2		0
				0
70				
			0.00	
			0.00	
	0.0%	2	0.00	
	0.0%	2	0.00	0
	0.0%	2	0.00	0
80				



90				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
100				
300				

**Tabela 26:** 100 Objetos Pre-Runtime Box OnTriggerStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10	0.0%	2	0.09	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
	0.0%	2	0.01	0
	0.0%	6	0.01	0
20	0.0%	6		0
		6	0.00	0
	0.1%			
		6	0.01	0
	0.0%	12	0.00	0
	0.0%	18	0.01	0
	0.0%		0.01	0
	0.0%	6	0.01	0
	0.0%	6	0.01	
	0.0%	6	0.01	0
30	0.1%	6	0.01	0
	0.0%	6	0.04	0
	0.2%	10	0.01	0
	0.1%	10	0.01	0
	0.0%	10	0.05	0
	0.0%	8	0.01	0
	0.3%	8	0.00	0
	0.0%	12	0.01	0
	0.0%	22	0.01	0
	0.0%	14	0.01	0
40	0.2%	14	0.01	0
	0.0%	10	0.01	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	10	0.01	0
	0.0%	14	0.01	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.01	0
50	0.0%	14	0.00	0

	0.0%	14	0.01	0
	0.0%	22	0.01	0
	0.0%	14	0.01	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
60	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.04	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	14	0.00	0
	0.0%	16	0.00	0
	0.0%	16	0.00	0
	0.0%	18	0.01	0
	0.0%	16	0.00	0
70	0.0%	16	0.00	0
	0.0%	16	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	16	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	20	0.00	0
	0.0%	20	0.00	0
80	0.0%	20	0.00	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	20	0.01	0
	0.0%	20	0.01	0

	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
90	0.0%	22	0.02	0
	0.0%	22	0.02	0
	0.1%	22	0.01	0
	0.1%	22	0.01	0
	0.1%	24	0.01	0
	0.0%	24	0.01	0
	0.3%	24	0.01	0
	0.0%	26	0.01	0
	0.0%	24	0.01	0
	0.0%	24	0.01	0
100	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.03	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
110	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.02	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0

	0.1%	22	0.00	0
120	0.0%	22	0.00	0
	0.0%	22	0.03	0
	0.0%	22	0.03	0
	0.0%	22	0.00	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.03	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
130	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.03	0
	0.0%	22	0.01	0
	0.1%	22	0.00	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
140	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.1%	22	0.00	0
	0.0%	22	0.01	0
	0.1%	22	0.02	0
	0.0%	22	0.01	0
	0.0%	22		0
	0.0%	22	0.01	0
	0.0%	22	0.03	0
150	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0

		22	0.01	0
	0.4%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	
	0.0%	22	0.01	0
160	0.1%		0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.03	0
	0.5%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
170	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22		0
	0.0%	22	0.02	0
	0.0%	22	0.01	0
	0.0%	22		0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
		22	0.01	0
	0.1%	22	0.01	0
180	0.0%	22	0.01	0
		22	0.00	0
	0.0%	22	0.01	0
	0.0%	22	0.02	
	0.0%		0.01	0
	0.0%	44	0.01	
	0.0%		0.01	0

	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
190	0.0%	22	0.07	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.06	0
	0.0%	22	0.01	0
	0.5%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
200	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
210	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.00	0
	0.0%	22	0.00	0
	0.0%	22	0.01	0
	0.1%	22	0.00	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.00	0
	0.0%	22	0.01	0
220	0.0%	22	0.01	0

	0.0%	22	0.00	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.00	0
	0.0%	22	0.00	0
	0.1%	22	0.01	0
230	0.0%	18	0.00	0
	0.0%	22	0.00	0
	0.0%	22	0.00	0
	0.0%	22	0.03	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	18	0.01	0
	0.0%	22	0.00	0
	0.0%	18	0.04	0
	0.0%	22	0.00	0
240	0.0%	22	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.04	0
250	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.04	0
	0.0%	18	0.00	0
	0.3%	18	0.01	0



	0.0%	18	0.00	0
	0.0%	18	0.01	0
	0.0%	22	0.00	0
	0.0%	18	0.04	0
	0.0%	18	0.00	0
260	0.0%	18	0.01	0
	0.0%	18	0.01	0
	0.1%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.04	0
	0.0%	18	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.01	0
270	0.0%	22	0.01	0
	0.2%	18	0.01	0
	0.1%	22	0.01	0
	0.0%	18	0.01	0
	0.0%	22	0.01	0
	0.0%	18	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.2%	22	0.01	0
280	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.00	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0

	0.0%	22	0.01	0
290	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.1%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.01	0
300	0.0%	22	0.01	0

**Tabela 27:** 100 Objetos Pre-Runtime Box Physics2DSimulate

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	4.1%	1	0.44	71100
	3.0%	1	0.52	71100
	2.4%	1	0.40	71100
	2.5%	1	0.41	71100
	2.9%	1	0.50	71100
	2.4%	1	0.41	71100
	2.4%	1	0.40	71100
	3.1%	1	0.52	71100
	3.4%	1	0.54	71200
10	3.2%	1	0.54	71100
	3.4%	1	0.59	71100
	2.7%	1	0.45	71100
	2.8%	1	0.46	71100
	3.5%	1	0.60	71100
	2.8%	1	0.45	71100
	3.0%	1	0.49	71100
	3.8%	1	0.71	71200

	3.0%	1	0.48	71100
	2.9%	1	0.44	71100
20	3.0%	1	0.51	71100
	3.0%	1	0.53	71100
	4.9%	2	0.88	142200
	2.4%	1	0.42	71100
	2.4%	1	0.43	71100
	3.3%	1	0.53	71100
	2.8%	1	0.46	71100
	2.6%	1	0.45	71200
30	2.4%	1	0.63	71100
	12.9%	1	1.25	71100
	2.8%	1	0.46	71100
	8.6%	1	1.28	71100
	6.1%	1	1.03	71100
	3.9%	1	0.63	71200
	5.5%	1	0.94	71100
	3.3%	1	0.57	71100
	3.1%	1	0.51	99500
	4.3%	1	0.73	113800
40	6.0%	1	1.04	113800
	4.9%	1	0.84	113800
	4.9%	1	0.81	113800
	3.4%	1	0.55	113800
	3.8%	1	0.63	128000
	5.4%	1	0.90	156400
	4.0%	1	0.68	170600
	4.0%	1	0.65	170600
	4.4%	1	0.69	170600
	3.3%	1	0.56	170600
50	3.6%	1	0.58	184800
	4.4%	1	0.72	199100

	3.6%	1	0.63	213300
	5.0%	1	0.90	220400
	5.0%	1	0.82	255900
	4.2%	1	0.67	263000
	4.5%	1	0.74	298600
	5.3%	1	0.89	334100
	4.6%	1	0.74	312800
	4.9%	1	0.82	348400
60	5.4%	1	0.91	348400
	3.3%	1	0.79	334100
	9.3%	1	1.13	355500
	6.7%	1	0.94	376800
	5.2%	1	0.86	383900
	5.3%	1	0.89	391000
	5.6%	1	0.95	398100
	5.4%	1	0.95	455000
	7.1%	1	1.07	500000
	6.7%	1	1.16	600000
70	6.7%	1	1.09	600000
	6.7%	1	1.15	600000
	7.1%	1	1.17	600000
	6.9%	1	1.16	600000
	7.7%	1	1.31	600000
	8.0%	1	1.32	600000
	7.5%	1	1.28	600000
	7.2%	1	1.15	600000
	7.2%	1	1.22	600000
	7.7%	1	1.14	600000
80	6.8%	1	1.15	600000
	7.4%	1	1.24	700000
	7.2%	1	1.22	700000
	7.8%	1	1.26	700000
	7.2%	1	1.26	700000
	7.8%	1	1.23	700000

	6.7%	1	1.33	700000
	9.1%	1	1.28	700000
	7.8%	1	1.27	800000
	8.7%	1	1.38	800000
90	7.5%	1	1.33	800000
	8.6%	1	1.38	800000
	5.9%	1	1.45	800000
	15.9%	1	1.80	800000
	9.5%	1	1.34	800000
	8.5%	1	1.35	800000
	7.9%	1	1.38	900000
	8.7%	1	1.37	800000
	7.3%	1	1.27	700000
	8.1%	1	1.31	700000
100	7.2%	1	1.28	700000
	7.1%	1	1.25	700000
	8.3%	1	1.33	700000
	9.1%	1	1.38	600000
	7.5%	1	1.37	600000
	7.9%	1	1.30	600000
	7.9%	1	1.26	600000
	7.4%	1	1.14	600000
	6.7%	1	1.15	600000
	7.0%	1	1.13	600000
110	6.9%	1	1.19	600000
	6.6%	1	1.11	600000
	7.4%	1	1.18	600000
	6.5%	1	1.13	600000
	6.8%	1	1.18	700000
	11.1%	1	1.72	700000
	7.1%	1	1.19	700000
	7.0%	1	1.17	700000
	7.2%	1	1.16	600000
	7.0%	1	1.19	600000

120	7.2%	1	1.15	600000
	6.8%	1	1.14	600000
	6.8%	1	1.18	600000
	4.6%	1	1.17	600000
	18.5%	1	1.99	700000
	8.5%	1	1.16	700000
	6.9%	1	1.21	700000
	8.0%	1	1.24	700000
	7.1%	1	1.20	700000
	7.8%	1	1.28	700000
130	8.5%	1	1.61	700000
	8.4%	1	1.20	700000
	7.3%	1	1.23	700000
	7.9%	1	1.35	700000
	7.8%	1	1.33	700000
	8.6%	1	1.36	700000
	7.3%	1	1.24	700000
	7.7%	1	1.21	700000
	6.9%	1	1.18	700000
	7.3%	1	1.19	700000
140	6.7%	1	1.14	700000
	6.7%	1	1.13	700000
	7.0%	1	1.13	700000
	6.9%	1	1.12	600000
	7.4%	1	1.26	600000
	6.8%	1	1.14	600000
	43.5%	1	13.67	600000
	33.9%	2	2.53	1200000
	6.9%	1	1.06	600000
150	6.7%	1	1.09	600000
	6.5%	1	1.11	600000
	6.2%	1	1.09	600000
	4.4%	1	1.14	600000

	19.4%	1	2.02	600000
	9.1%	1	1.18	600000
	7.3%	1	1.23	600000
	8.2%	1	1.32	700000
	7.5%	1	1.30	600000
	7.8%	1	1.22	600000
160	7.8%	1	1.39	600000
	7.5%	1	1.25	600000
	7.8%	1	1.28	600000
	8.1%	1	1.29	600000
	6.8%	1	1.10	600000
	6.5%	1	1.15	600000
	7.5%	1	1.17	700000
	6.6%	1	1.12	700000
	6.7%	1	1.13	600000
170	10.8%	2	2.16	1300000
	6.4%	1	1.21	700000
	7.6%	1	1.18	700000
	7.1%	1	1.27	700000
	7.4%	1	1.22	700000
	7.4%	1	1.19	700000
	7.2%	1	1.22	700000
	7.4%	1	1.23	700000
	7.7%	1	1.23	700000
180	7.2%	1	1.22	700000
	7.1%	1	1.19	700000
	8.3%	1	1.36	700000
	6.8%	1	1.19	700000
	5.3%	1	1.35	700000
	22.6%	1	3.10	700000
	12.6%	1	1.43	700000
	10.7%	1	1.66	700000

	10.4%	1	1.69	700000
	8.1%	1	1.41	700000
190	11.5%	1	1.87	600000
	7.8%	1	1.29	600000
	7.6%	1	1.21	600000
	7.2%	1	1.23	600000
	7.2%	1	1.22	600000
	6.7%	1	1.11	600000
	7.4%	1	1.21	600000
	6.9%	1	1.14	600000
	8.0%	1	1.35	600000
	7.3%	1	1.22	600000
200	7.7%	1	1.27	600000
	7.0%	1	1.23	600000
	8.2%	1	1.30	600000
	6.9%	1	1.11	600000
	6.5%	1	1.11	600000
	6.7%	1	1.11	600000
	6.9%	1	1.10	600000
	6.5%	1	1.08	600000
	6.7%	1	1.16	600000
	6.8%	1	1.11	600000
210	6.9%	1	1.10	600000
	6.6%	1	1.07	600000
	6.5%	1	1.09	600000
	6.6%	1	1.09	600000
	6.0%	1	1.08	600000
	4.0%	1	1.08	600000
	14.9%	1	1.63	600000
	7.8%	1	1.10	600000
	6.9%	1	1.11	600000
	7.1%	1	1.12	600000
220	6.7%	1	1.12	600000
	6.7%	1	1.06	600000



	9.4%	1	1.74	600000
	7.4%	1	1.21	600000
	7.5%	1	1.17	600000
	7.5%	1	1.26	600000
	7.5%	1	1.23	600000
	7.0%	1	1.21	600000
	7.7%	1	1.25	600000
	7.2%	1	1.22	600000
230	7.9%	1	1.29	600000
	7.6%	1	1.28	600000
	7.1%	1	1.09	600000
	5.9%	1	1.05	600000
	6.3%	1	1.13	600000
	8.3%	1	1.18	600000
	7.3%	1	1.20	500000
	6.6%	1	1.08	500000
	6.0%	1	1.01	500000
	6.4%	1	1.01	500000
240	5.8%	1	1.00	500000
	6.4%	1	1.03	500000
	5.9%	1	1.00	500000
	5.9%	1	0.99	500000
	6.2%	1	1.02	500000
	5.8%	1	0.99	500000
	4.5%	1	1.11	500000
	14.7%	1	1.95	511900
	8.7%	1	0.96	511900
	6.1%	1	1.05	511900
250	6.0%	1	1.00	511900
	6.7%	1	1.13	500000
	6.8%	1	1.08	500000
	6.6%	1	1.16	500000
	7.3%	1	1.16	500000
	7.2%	1	1.21	500000

	7.2%	1	1.21	500000
	7.0%	1	1.15	500000
	6.5%	1	1.15	500000
	8.0%	1	1.26	500000
260	8.1%	1	1.32	500000
	6.0%	1	1.02	500000
	6.3%	1	1.05	500000
	6.6%	1	1.06	500000
	6.1%	1	1.00	500000
	6.0%	1	1.02	500000
	6.2%	1	1.05	500000
	6.3%	1	1.07	500000
	7.1%	1	1.13	500000
	7.0%	1	1.40	500000
270	53.2%	1	14.32	500000
	21.7%	1	1.34	500000
	5.8%	1	1.00	500000
	6.4%	1	1.02	500000
	6.1%	1	1.01	500000
	5.8%	1	1.00	500000
	3.6%	1	1.01	500000
	17.3%	1	1.80	500000
	7.3%	1	0.95	500000
	6.3%	1	1.04	500000
280	6.5%	1	1.09	500000
	7.1%	1	1.18	600000
	9.9%	1	2.03	500000
	9.0%	1	1.16	500000
	7.2%	1	1.22	500000
	7.4%	1	1.18	600000
	7.5%	1	1.26	600000
	7.5%	1	1.22	600000
	7.0%	1	1.22	600000
	7.3%	1	1.16	600000

290	6.3%	1	1.06	600000
	3.8%	1	1.04	600000
	10.9%	1	1.16	600000
	8.9%	1	1.07	600000
	8.5%	1	1.59	600000
	7.2%	1	1.10	600000
	6.5%	1	1.02	600000
	6.2%	1	1.05	600000
	6.4%	1	1.07	500000
	4.7%	1	1.04	500000
300	0.3%	1	1.03	600000

#### A.1.5 QUINHENTOS OBJETOS

**Tabela 28:** 500 Objetos Pre-Runtime Box OnCollisionEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
50				

	0.0%	8	0.02	0
		4	0.00	0
			0.02	0
60			0.00	0
	0.0%			
	0.0%	8		
	0.0%	8		
		8	0.00	0
		6	0.00	0
			0.00	0
	0.0%			0
	0.0%			0
70	0.0%	4		
	0.0%	4	0.00	
	0.0%	4	0.00	
	0.0%	4	0.00	0
	0.0%	10	0.00	0
	0.0%	20	0.00	0
	0.0%	14	0.00	0
		6	0.00	0
	0.0%	10	0.00	0
	0.0%		0.00	0
80	0.0%	10	0.00	0
	0.0%	8		0
	0.0%	10	0.02	0
	0.0%	6	0.00	
	0.0%	18	0.00	0
	0.1%	38	0.00	0
	0.1%	20	0.00	0
	0.0%	14	0.03	0
	0.0%	6	0.02	0
	0.0%	14	0.00	0

90	0.0%	12	0.00	0
	0.0%	8	0.00	0
	0.0%	14	0.00	0
	0.0%	6	0.00	0
	0.0%	20	0.00	0
	0.0%	26	0.00	0
	0.0%	10	0.00	0
	0.1%	18	0.01	0
	0.0%	26	0.00	0
	0.1%	10	0.01	0
100	0.0%	30	0.02	0
	0.0%	18	0.00	0
	0.0%	28	0.02	0
	0.0%	18	0.00	0
	0.0%	12	0.01	0
	0.0%	6	0.00	0
	0.0%	16	0.01	0
	0.0%	16	0.00	0
	0.1%	30	0.00	0
	0.0%	22	0.01	0
110	0.2%	10	0.03	0
	0.0%	32	0.00	0
	0.0%	16	0.00	0
	0.0%	18	0.02	0
	0.0%	10	0.00	0
	0.0%	20	0.00	0
	0.0%	16	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
120	0.0%	18	0.00	0
	0.0%	30	0.00	0
	0.0%	22	0.01	0
	0.0%	20	0.01	0

	0.0%	16	0.00	0
	0.0%	28	0.00	0
	0.1%	24	0.01	0
	0.0%	32	0.01	0
	0.0%	22	0.00	0
	0.0%	28	0.02	0
130	0.0%	28	0.00	0
	0.0%	14	0.01	0
	0.0%	20	0.01	0
	0.0%	22	0.00	0
	0.1%	32	0.00	0
	0.0%	26	0.00	0
	0.0%	24	0.01	0
	0.1%	58	0.01	0
	0.1%	48	0.01	0
	0.1%	38	0.02	0
140	0.1%	44	0.01	0
	0.1%	34	0.02	0
	0.1%	54	0.03	0
	0.2%	38	0.03	0
	0.0%	58	0.02	0
	0.1%	26	0.01	0
	0.0%	52	0.03	0
	0.1%	26	0.01	0
	0.1%	30	0.02	0
	0.1%	44	0.01	0
150	0.1%	44	0.02	0
	0.1%	38	0.02	0
	0.0%	58	0.02	0
	0.1%	32	0.02	0
	0.1%	36	0.01	0
	0.1%	38	0.02	0
	0.2%	46	0.02	0
	0.1%	40	0.02	0

	0.1%	56	0.03	0
	0.1%	64	0.02	0
160	0.1%	58	0.02	0
	0.1%	52	0.03	0
	0.1%	62	0.02	0
	0.2%	68	0.02	0
	0.3%	88	0.02	0
	0.1%	64	0.03	0
	0.6%	72	0.04	0
	0.1%	74	0.03	0
	0.1%	44	0.12	0
	0.1%	46	0.02	0
170	0.2%	62	0.02	0
	0.1%	70	0.04	0
	0.2%	48	0.02	0
	0.3%	128	0.05	0
	0.1%	80	0.04	0
	0.3%	60	0.06	0
	0.2%	74	0.04	0
	0.2%	72	0.03	0
	0.2%	68	0.05	0
	0.2%	78	0.04	0
180	0.1%	64	0.04	0
	0.4%	136	0.04	0
	0.3%	126	0.04	0
	0.2%	78	0.08	0
	0.1%	66	0.04	0
	0.1%	52	0.04	0
	0.2%	70	0.04	0
	0.1%	82	0.02	0
	0.2%	56	0.03	0
	0.2%	66	0.04	0
190	0.6%	64	0.02	0
	0.3%	80	0.03	0

	0.2%	126	0.05	0
	0.2%	64	0.13	0
	0.1%	80	0.06	0
	0.2%	64	0.03	0
	0.2%	58	0.04	0
	0.2%	90	0.04	0
	0.1%	84	0.03	0
	0.1%	84	0.03	0
200	0.3%	64	0.04	0
	0.3%	128	0.04	0
	0.4%	122	0.04	0
	0.2%	162	0.12	0
	0.1%	80	0.08	0
	0.1%	58	0.09	0
	0.1%	66	0.03	0
	0.2%	68	0.02	0
	0.2%	90	0.03	0
	0.1%	80	0.03	0
210	0.2%	74	0.04	0
	0.2%	42	0.03	0
	0.2%	48	0.04	0
	0.1%	76	0.03	0
	0.2%	74	0.03	0
	0.2%	126	0.03	0
	0.1%	74	0.04	0
	0.2%	46	0.06	0
	0.1%	68	0.03	0
	0.1%	48	0.02	0
220	0.1%	58	0.03	0
	0.1%	54	0.02	0
	0.1%	68	0.03	0
	0.2%	58	0.02	0
	0.1%	48	0.03	0
	0.2%	62	0.03	0



	0.2%	60	0.03	0
	0.1%	46	0.03	0
	0.0%	48	0.04	0
	0.3%	52	0.03	0
230	0.3%	88	0.02	0
	0.1%	100	0.01	0
	0.2%	62	0.11	0
	0.1%	88	0.06	0
	0.1%	30	0.03	0
	0.1%	38	0.04	0
	0.2%	52	0.01	0
	0.1%	50	0.02	0
	0.1%	52	0.03	0
	0.2%	46	0.04	0
240	0.1%	46	0.03	0
	0.1%	60	0.02	0
	0.0%	40	0.02	0
	0.1%	24	0.02	0
	0.1%	44	0.01	0
	0.0%	42	0.02	0
	0.1%	30	0.05	0
	0.1%	48	0.02	0
	0.1%	36	0.01	0
	0.0%	52	0.02	0
250	0.1%	32	0.01	0
	0.1%	34	0.02	0
	0.0%	42	0.01	0
	0.2%	42	0.02	0
	0.0%	90	0.02	0
	0.1%	36	0.02	0
	0.1%	40	0.04	0
	0.1%	40	0.01	0
	0.2%	64	0.01	0
	0.2%	52	0.03	0

260	0.1%	104	0.05	0
	0.1%	30	0.02	0
	0.1%	44	0.05	0
	0.2%	46	0.01	0
	0.1%	44	0.03	0
	0.1%	54	0.02	0
	0.1%	44	0.03	0
	0.0%	44	0.02	0
	0.1%	32	0.02	0
	0.1%	36	0.01	0
270	0.0%	26	0.01	0
	0.1%	40	0.01	0
	0.1%	82	0.01	0
	0.0%	40	0.02	0
	0.0%	22	0.02	0
	0.1%	40	0.01	0
	0.1%	58	0.01	0
	0.0%	28	0.02	0
	0.0%	28	0.03	0
	0.1%	26	0.01	0
280	0.0%	38	0.01	0
	0.1%	28	0.01	0
	0.1%	36	0.01	0
	0.0%	32	0.01	0
	0.1%	16	0.02	0
	0.0%	28	0.02	0
	0.1%	30	0.00	0
	0.0%	26	0.01	0
	0.2%	34	0.02	0
	0.1%	82	0.01	0
290	0.1%	58	0.08	0
	0.1%	30	0.01	0
	0.0%	32	0.03	0
	0.0%	24	0.01	0

	0.1%	34	0.02	0
	0.1%	32	0.01	0
	0.0%	26	0.01	0
	0.1%	44	0.01	0
	0.1%	66	0.02	0
	0.2%	20	0.02	0
300	0.1%	34	0.03	0

**Tabela 29:** 500 Objetos Pre-Runtime Box OnCollisionExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
60				
	0.5%	10	0.09	0
	0.0%			
70				

		2		0
	0.0%		0.00	0
	0.0%	4	0.00	
		10	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
	0.0%	12	0.00	0
				0
80				
	0.0%	6	0.00	
	0.0%	2	0.00	0
	0.0%	12	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	12	0.00	0
	0.0%	4	0.00	0
	0.0%	8	0.00	0
	0.0%	12	0.00	0
90	0.0%	4	0.00	0
	0.0%	20	0.00	0
	0.0%	2	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	8	0.00	0
	0.0%	24	0.01	0
	0.0%	16	0.00	0
	0.0%	18	0.00	0
100	0.0%	18	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.00	0
	0.0%	12	0.00	0

	0.0%	18	0.01	0
	0.0%	24	0.01	0
	0.0%	20	0.00	0
	0.0%	10	0.01	0
	0.0%	18	0.00	0
110	0.0%	20	0.00	0
	0.0%	14	0.00	0
	0.0%	2	0.00	0
	0.0%	10	0.00	0
	0.0%	16	0.01	0
	0.0%	34	0.03	0
	0.0%	12	0.00	0
	0.0%	16	0.00	0
	0.0%	10	0.00	0
	0.0%	10	0.00	0
120	0.0%	12	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	6	0.01	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	20	0.00	0
	0.0%	6	0.00	0
	0.0%	8	0.01	0
	0.0%	14	0.01	0
130	0.0%	8	0.00	0
	0.0%	20	0.00	0
	0.0%	4	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	14	0.00	0
	0.0%	12	0.00	0
	0.0%	20	0.01	0

	0.0%	22	0.01	0
140	0.0%	30	0.01	0
	0.0%	20	0.01	0
	0.0%	32	0.01	0
	0.0%	38	0.01	0
	0.0%	20	0.01	0
	0.0%	20	0.01	0
	0.0%	62	0.04	0
	0.2%	26	0.01	0
	0.1%	24	0.01	0
	0.0%	20	0.01	0
150	0.0%	28	0.01	0
	0.0%	36	0.01	0
	0.0%	38	0.02	0
	0.1%	50	0.01	0
	0.1%	32	0.01	0
	0.0%	30	0.01	0
	0.0%	40	0.01	0
	0.1%	38	0.02	0
	0.1%	36	0.01	0
	0.1%	20	0.01	0
160	0.0%	62	0.02	0
	0.2%	54	0.01	0
	0.0%	30	0.04	0
	0.1%	32	0.01	0
	0.1%	34	0.02	0
	0.0%	30	0.01	0
	0.1%	40	0.01	0
	0.0%	52	0.02	0
	0.1%	62	0.02	0
	0.1%	46	0.03	0
170	0.1%	48	0.04	0
	0.0%	30	0.01	0
	0.1%	38	0.02	0

	0.1%	42	0.01	0
	0.1%	62	0.02	0
	0.0%	44	0.04	0
	0.2%	44	0.05	0
	0.1%	108	0.04	0
	0.2%	48	0.02	0
	0.3%	70	0.04	0
180	0.1%	48	0.06	0
	0.3%	68	0.02	0
	0.2%	44	0.02	0
	0.1%	48	0.04	0
	0.2%	52	0.04	0
	0.1%	54	0.06	0
	0.3%	116	0.09	0
	0.7%	68	0.04	0
	0.2%	70	0.02	0
	0.1%	50	0.02	0
190	0.1%	48	0.03	0
	0.2%	62	0.04	0
	0.0%	62	0.02	0
	0.1%	50	0.03	0
	0.1%	166	0.06	0
	0.2%	36	0.04	0
	0.0%	98	0.04	0
	0.2%	56	0.02	0
	0.2%	166	0.03	0
	0.1%	64	0.04	0
200	0.2%	68	0.04	0
	0.2%	70	0.03	0
	0.1%	74	0.03	0
	0.2%	72	0.05	0
	0.0%	58	0.02	0
	0.3%	150	0.12	0
	0.4%	166	0.10	0

	0.3%	168	0.08	0
	0.2%	84	0.04	0
	0.2%	72	0.04	0
210	0.1%	92	0.05	0
	0.3%	80	0.03	0
	0.1%	66	0.04	0
	0.2%	100	0.03	0
	0.2%	66	0.03	0
	0.1%	62	0.03	0
	0.1%	72	0.03	0
	0.2%	56	0.02	0
	0.1%	78	0.04	0
	0.3%	142	0.07	0
220	0.1%	56	0.02	0
	0.2%	76	0.03	0
	0.1%	66	0.03	0
	0.1%	72	0.03	0
	0.2%	74	0.03	0
	0.0%	56	0.02	0
	0.1%	88	0.05	0
	0.0%	62	0.04	0
	0.3%	54	0.03	0
	0.2%	62	0.02	0
230	0.2%	70	0.02	0
	0.1%	52	0.02	0
	0.1%	42	0.02	0
	0.1%	76	0.04	0
	0.3%	124	0.12	0
	0.2%	108	0.05	0
	0.0%	48	0.02	0
	0.2%	86	0.04	0
	0.3%	62	0.04	0
	0.0%	30	0.01	0
240	0.1%	50	0.02	0



	0.2%	30	0.01	0
	0.0%	58	0.03	0
	0.2%	24	0.01	0
	0.0%	28	0.03	0
	0.2%	46	0.02	0
	0.1%	32	0.01	0
	0.1%	24	0.03	0
	0.1%	42	0.02	0
	0.1%	46	0.02	0
250	0.1%	40	0.02	0
	0.1%	60	0.02	0
	0.2%	60	0.03	0
	0.1%	40	0.02	0
	0.0%	24	0.01	0
	0.1%	44	0.02	0
	0.1%	44	0.02	0
	0.0%	58	0.01	0
	0.2%	112	0.02	0
	0.1%	44	0.03	0
260	0.1%	32	0.01	0
	0.1%	32	0.01	0
	0.0%	54	0.10	0
	0.3%	58	0.05	0
	0.2%	84	0.02	0
	0.2%	32	0.03	0
	0.1%	48	0.02	0
	0.1%	48	0.02	0
	0.1%	34	0.01	0
	0.1%	58	0.02	0
270	0.1%	58	0.02	0
	0.1%	42	0.02	0
	0.1%	52	0.03	0
	0.1%	44	0.02	0
	0.1%	36	0.02	0

	0.1%	46	0.01	0
	0.1%	38	0.02	0
	0.1%	34	0.02	0
	0.1%	38	0.03	0
	0.1%	46	0.02	0
280	0.0%	86	0.04	0
	0.2%	44	0.02	0
	0.0%	44	0.01	0
	0.1%	28	0.01	0
	0.1%	36	0.02	0
	0.0%	26	0.01	0
	0.0%	44	0.04	0
	0.2%	28	0.03	0
	0.2%	46	0.01	0
	0.1%	28	0.02	0
290	0.0%	44	0.01	0
	0.0%	26	0.00	0
	0.2%	80	0.08	0
	0.1%	66	0.04	0
	0.1%	28	0.02	0
	0.0%	30	0.02	0
	0.1%	38	0.02	0
	0.1%	46	0.01	0
	0.0%	24	0.01	0
	0.1%	32	0.01	0
300	0.0%	30	0.01	0

**Tabela 30:** 500 Objetos Pre-Runtime Box OnCollisionS-  
tay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	0.3%	100	0.04	0
	0.3%	100	0.41	0
	0.3%	100	0.05	

	0.3%		0.41	0
	0.3%	100	0.05	0
		100		0
	0.3%	100	0.07	0
	0.3%	100	0.07	0
	0.3%	100	0.05	0
10	0.2%	100	0.07	0
	2.7%	100	0.04	0
	2.7%	100	0.07	0
	0.3%	100	0.05	0
	0.3%	100	0.04	0
	0.4%	100	0.05	0
	3.3%	100	0.06	0
	0.3%	100	0.05	0
	0.2%	100	0.06	0
	0.3%	100	0.04	0
20	0.3%	100	0.05	0
	0.6%	100	0.06	0
	0.2%	100	0.18	0
	1.1%	100	0.11	0
	0.5%	100	0.07	0
	0.3%	100	0.07	0
	0.6%	100	0.05	0
	0.3%	100	0.05	0
	0.4%	100	0.07	0
	0.4%	100	0.07	0
30	0.2%	100	0.04	0
	0.4%	100	0.05	0
	0.2%	100	0.05	0
	0.4%	100	0.06	0
	0.2%	100	0.04	0
	0.6%	100	0.04	0
	0.6%	100	0.10	0
	0.9%	100	0.15	0

	0.4%	100	0.06	0
	0.4%	100	0.05	0
40	0.4%	100	0.08	0
	0.3%	100	0.05	0
	0.3%	100	0.04	0
	0.4%	100	0.04	0
	0.3%	100	0.06	0
	0.4%	100	0.05	0
	0.3%	100	0.04	0
	0.2%	100	0.04	0
	0.3%	100	0.04	0
	0.3%	100	0.04	0
50	0.4%	100	0.05	0
	0.2%	100	0.06	0
	0.2%	100	0.04	0
	0.4%	100	0.04	0
	0.1%	100	0.14	0
	0.5%	100	0.12	0
	0.4%	100	0.04	0
	0.3%	200		
	1.0%	100	0.13	0
		128		0
60	0.6%		0.05	
		200	0.07	0
	0.2%		0.06	0
	0.4%	100	0.05	0
	0.3%	108	0.05	0
	0.4%	112	0.05	0
	0.3%	112	0.05	0
	0.4%	112	0.05	0
	0.3%	112	0.06	0
	0.3%	128	0.05	0
70	0.3%	112	0.05	0
	0.4%	128	0.05	0

	0.3%	114	0.05	0
	0.3%	122	0.05	0
	0.3%	128	0.06	0
	0.3%	128	0.06	0
	2.6%	128	0.05	0
	0.3%	128	0.07	0
	0.4%	132	0.08	0
	0.3%	134	0.06	0
80	0.4%	172	0.07	0
	0.5%	138	0.08	0
	0.4%	138	0.07	0
	2.6%	142	0.07	0
	2.6%	142	0.64	0
	0.7%	150	0.07	0
	0.2%	172	0.07	0
	2.6%	170	0.07	0
	0.8%	174	0.07	0
	0.4%	172	0.07	0
90	0.4%	348	0.08	0
	0.5%	176	0.12	0
	0.6%	172	0.10	0
	0.5%	182	0.11	0
	0.7%	190	0.11	0
	0.6%	220	0.11	0
	0.6%	236	0.13	0
	0.6%	228	0.12	0
	0.6%	238	0.11	0
	0.6%	242	0.10	0
100	0.8%	246	0.10	0
	0.6%	236	0.25	0
	0.6%	246	0.09	0
	0.6%	246	0.12	0
	0.5%	236	0.11	0
	0.8%	226	0.25	0

	0.6%	228	0.11	0
	0.5%	236	0.11	0
	0.6%	236	0.12	0
	0.7%	236	0.12	0
110	0.7%	266	0.15	0
	0.5%	264	0.11	0
	0.8%	276	0.12	0
	0.7%	270	0.25	0
	0.7%	290	0.25	0
	1.2%	318	0.15	0
	1.1%	298	0.11	0
	0.5%	290	0.13	0
	0.8%	318	0.24	0
	0.5%	282	0.16	0
120	3.6%	316	0.52	0
	1.2%	322	0.16	0
	0.8%	634	0.16	0
	1.2%	316	0.15	0
	0.9%	318	0.14	0
	0.9%	318	0.16	0
	1.0%	318	0.16	0
	3.1%	332	0.16	0
	1.0%	324	0.56	0
	0.9%	328	0.16	0
130	1.0%	436	0.16	0
	1.1%	436	0.16	0
	1.0%	322	0.18	0
	1.2%	322	0.16	0
	1.2%	346	0.21	0
	1.0%	358	0.19	0
	1.3%	360	0.21	0
	1.2%	380	0.19	0
	1.2%	384	0.19	0
	1.2%	436	0.19	0

140	1.3%	416	0.21	0
	1.1%	426	0.20	0
	1.4%	436	0.20	0
	1.1%	436	0.21	0
	1.4%	444	0.21	0
	2.7%	444	0.19	0
	2.1%	446	0.21	0
	1.3%	442	0.21	0
	1.7%	446	0.21	0
	1.6%	462	0.30	0
150	1.5%	480	0.22	0
	1.7%	1002	0.69	0
	1.7%	504	0.30	0
	1.7%	674	0.22	0
	1.6%	556	0.23	0
	1.5%	562	0.27	0
	1.7%	674	0.27	0
	1.0%	586	0.28	0
	2.7%	574	0.30	0
	1.7%	566	0.45	0
160	1.6%	580	0.29	0
	2.0%	578	0.28	0
	1.7%	674	0.26	0
	2.0%	572	0.45	0
	1.9%	572	0.97	0
	2.1%	590	0.27	0
	2.6%	582	0.27	0
	2.9%	924	0.30	0
	2.3%	592	0.31	0
	2.2%	616	0.97	0
170	1.4%	674	0.28	0
	3.5%	686	0.45	0
	2.8%	924	0.27	0
	3.3%	696	0.29	0

	3.1%	718	0.32	0
	2.8%	758	0.53	0
	2.8%	792	0.33	0
	1.4%	826	0.97	0
	3.7%	924	0.33	0
	3.1%	828	0.34	0
180	3.2%	812	0.52	0
	2.9%	830	0.68	0
	3.6%	1154	0.45	0
	3.2%	856	0.36	0
	3.1%	1712	0.53	0
	8.4%	886	0.38	0
	5.0%	908	0.37	0
	4.0%	924	1.01	0
	3.1%	1154	0.97	0
	3.2%	940	0.53	0
190	3.1%	964	0.68	0
	3.4%	1934	0.42	0
	2.0%	1154	0.53	0
	1.9%	988	1.34	0
	5.6%	1004	0.54	0
	5.5%	1048	0.68	0
	4.7%	1008	0.48	0
	3.5%	1032	0.50	0
	3.1%	1052	0.48	0
	2.8%	1046	0.93	0
200	2.6%	1062	0.49	0
	2.9%	1090	0.53	0
	3.1%	1142	1.34	0
	2.9%	1142	0.49	0
	2.8%	1048	0.62	0
	1.6%	1154	0.51	0
	4.0%	1148	1.34	0
	3.0%	1132	0.50	0



	2.9%	1048	0.48	0
	2.9%	1144	0.68	0
210	2.7%	1844	0.47	0
	2.9%	1170	1.87	0
	2.5%	2326	1.10	0
	3.3%	2214	0.48	0
	3.2%	2172	0.57	0
	2.5%	1078	0.56	0
	2.7%	1086	0.53	0
	1.3%	1052	0.52	0
	5.0%	950	0.58	0
	4.3%	1036	0.54	0
220	1.5%	1044	0.57	0
	4.6%	1844	2.00	0
	3.1%	1062	0.47	0
	2.8%	1048	1.34	0
	2.6%	1844	1.05	0
	3.0%	926	0.47	0
	2.4%	1046	0.51	0
	2.5%	2088	0.45	0
	2.6%	1046	0.52	0
	2.5%	1026	0.56	0
230	2.6%	1022	0.48	0
	2.9%	1004	0.48	0
	2.3%	988	0.56	0
	3.6%	950	0.47	0
	3.0%	986	0.48	0
	2.9%	950	0.44	0
	3.0%	966	0.53	0
	2.2%	948	0.98	0
	3.3%	1682	0.58	0
	2.7%	958	0.45	0
240	2.6%	926	0.48	0
	2.8%	976	0.45	0

	2.7%	926	0.45	0
	1.4%	948	0.47	0
	3.4%	1844	0.47	0
	2.4%	1820	0.45	0
	2.4%	908	0.57	0
	2.5%	1854	0.53	0
	1.7%	910	0.56	0
	4.3%	910	0.46	0
250	4.2%	898	0.45	0
	2.6%	920	0.54	0
	2.8%	912	0.44	0
	2.7%	936	1.70	0
	2.8%	950	0.88	0
	2.7%	1682	0.48	0
	2.7%	1682	0.45	0
	2.7%	968	0.88	0
	2.7%	946	0.45	0
	2.8%	954	0.43	0
260	2.5%	956	0.45	0
	2.8%	926	0.45	0
	2.4%	914	0.48	0
	2.4%	902	0.41	0
	1.4%	938	0.44	0
	2.3%	916	0.45	0
	3.1%	926	0.49	0
	2.3%	1822	0.54	0
	2.3%	924	0.54	0
	2.3%	1894	0.43	0
270	2.5%	964	0.49	0
	1.9%	946	0.41	0
	4.5%	942	0.43	0
	3.3%	954	0.45	0
	3.3%	940	0.45	0
	2.2%	936	0.46	0

	2.5%	938	0.46	0
	1.2%	916	0.48	0
	4.0%	904	0.45	0
	4.8%	910	0.86	0
280	3.5%	912	0.42	0
	2.9%	888	0.43	0
	2.7%	1750	0.48	0
	2.3%	854	1.17	0
	2.7%	854	0.94	0
	2.3%	844	0.48	0
	4.4%	856	0.43	0
	3.5%	840	0.46	0
	2.3%	848	0.44	0
	2.4%	852	0.48	0
290	2.9%	824	0.45	0
	2.4%	1682	0.49	0
	1.7%	836	0.47	0
	2.8%	840	0.44	0
	2.9%	1682	0.42	0
	2.4%	1684	0.41	0
	2.7%	840	0.41	0
	2.8%	840	0.41	0
	2.5%	834	0.45	0
	1.9%	834	0.82	0
300	0.1%	836	0.39	0

**Tabela 31:** 500 Objetos Pre-Runtime Box OnTriggerEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
20				
	0.5%	4	0.09	0
30				
	0.0%	8	0.00	0
40				

	0.0%	8	0.00	0
50				
	0.0%	8	0.01	0
	0.0%	4	0.00	0
60				
	0.0%	8	0.00	0
70				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	6	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
80	0.0%	4	0.00	0

	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
90				
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
100				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
110				
	0.0%	2	0.00	0
	0.0%	2	0.00	0

120				
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
130				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
140				
	0.0%	4	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
150				
	0.0%	2	0.00	0
	0.0%	4	0.01	0
160				
	0.0%	2	0.00	0
	0.0%	4	0.00	0
170				
180				
	0.0%	2	0.00	0



	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
190	0.0%	2	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
200	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
210				

	0.0%	2	0.00	0
220				
240	0.0%	2	0.00	0
250				
	0.0%	2	0.00	0
260				
	0.0%	2	0.00	0

270				
300				

**Tabela 32:** 500 Objetos Pre-Runtime Box OnTriggerExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
50				
	0.9%	4	0.10	0
	0.0%	8	0.00	0
60	0.0%			

70				
		8	0.00	0
	0.0%			
		2	0.00	0
	0.0%	2		
			0.00	0
	0.0%	4		0
80				
			0.01	
	0.1%	6	0.01	0
90				
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0

100				
110				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
120				
	0.0%	2	0.00	0
130				
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%			
		2	0.00	0
	0.0%			
		2	0.00	0
	0.0%	2		
140			0.00	0
	0.0%	2		0
			0.00	
	0.0%	2	0.01	0
150				
160				
	0.0%	4	0.01	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
170				

	0.0%	2	0.00	0
180				
190				
	0.0%	2	0.00	0
200				
	0.0%	2	0.00	0

210				
	0.0%	4	0.00	0
	0.0%	4	0.00	0
220				
	0.0%	2	0.00	0
230				
250				
	0.0%	2	0.00	0
260				



300				

**Tabela 33:** 500 Objetos Pre-Runtime Box OnTriggerStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
30	0.7%	4	0.10	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.03	0
	0.2%	4	0.03	0
	0.2%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.01	0
	0.0%	12	0.00	0
40	0.0%	12	0.00	0
	0.0%	12	0.01	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.00	0

	0.0%	12	0.00	0
	0.0%	12	0.00	0
	0.0%	12	0.01	0
50	0.0%	12	0.00	0
	0.0%	20	0.02	0
	0.0%	20	0.02	0
	0.2%	40	0.03	0
	0.0%	16	0.00	0
	0.1%	16	0.02	0
	0.1%	52	0.03	0
	0.1%	28	0.03	0
60	0.1%	28	0.01	0
	0.0%	20	0.01	0
	0.1%	20	0.01	0
	0.0%	20	0.01	0
	0.0%	28	0.01	0
	0.1%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.1%	28	0.01	0
70	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	22	0.01	0
	0.0%	24	0.01	0
	0.0%	24	0.01	0
	0.0%	22	0.01	0
	0.0%	22	0.00	0
80	0.0%	24	0.01	0

	0.0%	60	0.01	0
	0.0%	24	0.01	0
	0.0%	28	0.01	0
	0.6%	60	0.14	0
	0.1%	28	0.01	0
	0.1%	32	0.01	0
	0.1%	32	0.01	0
	0.1%	32	0.01	0
	0.1%	32	0.01	0
90	0.1%	32	0.02	0
	0.1%	32	0.01	0
	0.0%	32	0.01	0
	0.1%	34	0.01	0
	0.1%	36	0.01	0
	0.1%	36	0.01	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	36	0.01	0
100	0.1%	36	0.01	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.2%	42	0.03	0
	0.1%	42	0.02	0
	0.2%	44	0.04	0
110	0.1%	46	0.02	0
	0.1%	46	0.02	0
	0.1%	48	0.02	0
	0.1%	48	0.03	0
	0.1%	46	0.04	0

	0.3%	88	0.05	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	42	0.02	0
	0.1%	44	0.02	0
120	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	46	0.02	0
130	0.1%	48	0.02	0
	0.1%	50	0.01	0
	0.1%	50	0.02	0
	0.1%	52	0.02	0
	0.1%	50	0.02	0
	0.0%	48	0.01	0
	0.1%	50	0.02	0
	0.1%	48	0.02	0
	0.1%	48	0.02	0
	0.1%	48	0.02	0
140	0.1%	50	0.02	0
	0.1%	48	0.01	0
	0.0%	48	0.02	0
	0.8%	46	0.20	0
	0.3%	92	0.06	0
	0.2%	44	0.02	0
	0.1%	44	0.02	0
	0.2%	44	0.04	0
	0.1%	48	0.02	0

	0.1%	48	0.02	0
150	0.2%	50	0.03	0
	0.1%	50	0.02	0
	0.1%	50	0.02	0
	0.1%	50	0.02	0
	0.1%	52	0.02	0
	0.1%	52	0.02	0
	0.2%	52	0.04	0
	0.1%	52	0.02	0
	0.2%	52	0.02	0
	0.1%	52	0.02	0
160	0.1%	54	0.02	0
	0.1%	58	0.03	0
	0.1%	58	0.03	0
	0.1%	58	0.02	0
	0.1%	58	0.02	0
	0.1%	54	0.02	0
	0.1%	54	0.02	0
	0.2%	54	0.04	0
	0.2%	54	0.03	0
	0.1%	52	0.02	0
170	0.1%	52	0.02	0
	0.2%	50	0.06	0
	0.3%	54	0.10	0
	0.3%	108	0.07	0
	0.4%	54	0.05	0
	0.1%	54	0.03	0
	0.2%	54	0.03	0
	0.1%	54	0.02	0
	0.1%	54	0.03	0
	0.1%	54	0.03	0
180	0.0%	54	0.03	0
	0.3%	106	0.07	0
	0.2%	52	0.03	0

	0.2%	52	0.03	0
	0.2%	52	0.03	0
	0.1%	52	0.02	0
	0.1%	54	0.02	0
	0.1%	54	0.03	0
	0.1%	54	0.02	0
	0.1%	54	0.03	0
190	0.3%	54	0.07	0
	0.2%	114	0.05	0
	0.2%	58	0.03	0
	0.2%	60	0.03	0
	0.1%	60	0.02	0
	0.1%	62	0.03	0
	0.2%	64	0.03	0
	0.1%	64	0.03	0
	0.3%	64	0.10	0
	0.4%	128	0.17	0
200	0.2%	128	0.07	0
	0.2%	126	0.05	0
	0.2%	64	0.03	0
	0.2%	62	0.03	0
	0.2%	64	0.03	0
	0.1%	66	0.03	0
	0.1%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
210	0.1%	66	0.02	0
	0.1%	68	0.03	0
	0.3%	138	0.08	0
	0.2%	70	0.03	0
	0.2%	70	0.04	0
	0.1%	66	0.03	0
	0.2%	66	0.03	0

	0.2%	66	0.03	0
	0.1%	62	0.02	0
	0.1%	62	0.03	0
220	0.6%	62	0.11	0
	0.2%	62	0.03	0
	0.2%	62	0.03	0
	0.1%	62	0.02	0
	0.1%	64	0.03	0
	0.1%	64	0.03	0
	0.4%	128	0.15	0
	0.4%	128	0.08	0
	0.1%	64	0.03	0
	0.2%	126	0.05	0
230	0.2%	62	0.03	0
	0.1%	62	0.03	0
	0.1%	62	0.03	0
	0.2%	62	0.03	0
	0.2%	62	0.03	0
	0.2%	62	0.03	0
	0.2%	62	0.03	0
	0.2%	62	0.03	0
	0.1%	62	0.03	0
	0.2%	62	0.04	0
240	0.2%	62	0.03	0
	0.2%	62	0.03	0
	0.1%	62	0.03	0
	0.2%	62	0.03	0
	0.1%	62	0.03	0
	0.2%	64	0.04	0
	0.2%	64	0.03	0
	0.1%	64	0.03	0
	0.1%	64	0.03	0
	0.3%	128	0.07	0
250	0.3%	64	0.03	0

	0.2%	64	0.03	0
	0.1%	64	0.03	0
	0.1%	64	0.03	0
	0.3%	128	0.08	0
	0.2%	64	0.03	0
	0.1%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.04	0
	0.1%	66	0.03	0
260	0.2%	66	0.04	0
	0.1%	64	0.03	0
	0.2%	64	0.03	0
	0.2%	64	0.03	0
	0.2%	64	0.03	0
	0.2%	64	0.03	0
	0.2%	64	0.03	0
	0.2%	64	0.03	0
	0.1%	64	0.03	0
	0.1%	64	0.03	0
	0.4%	128	0.08	0
270	0.2%	64	0.03	0
	0.3%	66	0.05	0
	0.2%	66	0.03	0
	0.2%	66	0.04	0
	0.2%	66	0.05	0
	0.5%	66	0.08	0
	0.3%	66	0.05	0
	0.3%	66	0.04	0
	0.1%	66	0.03	0
	0.2%	66	0.03	0
280	0.1%	66	0.03	0
	0.2%	132	0.08	0
	0.3%	132	0.07	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0



	0.2%	66	0.04	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
	0.1%	66	0.03	0
	0.0%	66	0.03	0
290	0.3%	132	0.06	0
	0.2%	66	0.03	0
	0.1%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
	0.1%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
	0.2%	66	0.03	0
300	0.2%	66	0.03	0

**Tabela 34:** 500 Objetos Pre-Runtime Box Physics2DSimulate

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	10.2%	1	1.59	355500
	9.5%	1	1.78	355500
	9.5%			
	10.9%	1	2.43	355500
		1	1.62	355500
	12.3%	1	1.78	355500
	10.4%	1	1.78	355500
	10.6%	1	1.79	355500
	11.8%	1	2.24	355500
10	10.3%	1	1.73	355500
	11.8%	1	1.79	355500
	11.1%	1	2.24	455000
	9.8%	1	1.63	355500

	10.7%	1	1.65	455000
	13.0%	1	2.35	355500
	9.7%	1	1.64	355500
	36.8%	1	1.65	355500
	9.8%	1	3.00	355500
	9.7%	1	3.63	355500
20	36.8%	1	4.93	700000
	13.7%	1	3.00	355500
	10.4%	1	2.98	700000
	10.4%	1	2.98	700000
	6.0%	2	1.91	700000
	17.4%	1	2.05	355500
	46.5%	1	2.93	355500
	19.4%	1	2.22	355500
	11.9%	1	2.23	355500
	13.1%	1	2.45	355500
30	16.7%	1	2.19	355500
	13.9%	1	1.98	355600
	13.4%	1	1.77	355500
	14.5%	1	2.28	355500
	12.6%	1	1.77	355500
	13.4%	1	2.50	355500
	15.5%	1	1.77	355500
	14.1%	1	2.58	355500
	15.0%	1	1.80	355500
	13.3%	1	2.58	355600
40	15.0%	1	1.64	355500
	11.2%	1	1.66	355500
	10.6%	1	2.22	355500
	15.1%	1	1.74	355500
	10.4%	1	1.72	355500
	10.0%	1	2.31	355500
	12.5%	1	1.69	355500
	11.3%	1	2.22	355500

	9.9%	1	1.60	355500
	14.1%	1	1.85	355500
50	10.3%	1	2.37	355600
	10.4%	1	1.96	700000
	12.0%	1	3.98	355500
	12.6%	2	3.98	355500
	8.5%	1	3.98	700000
	12.0%	1	1.96	355500
	7.3%		2.30	355600
	7.3%	2		
	7.3%		4.06	700000
	39.4%	1		
60	16.6%	1	1.92	383900
	13.6%	1	2.43	398100
		1	2.00	398100
	19.0%	1	1.98	398100
		1	2.50	398100
	9.4%	1	1.79	412300
	15.7%	1	2.53	900000
	12.3%	1	3.16	440800
	12.3%	1	1.91	455000
	12.3%	1	1.77	455000
70	14.3%	1	1.77	455000
	11.8%	1	3.00	700000
	15.5%	1	3.16	900000
	36.8%	1	3.00	700000
	11.1%	1	1.77	455000
	36.8%	1	2.49	469200
	14.9%	1	1.79	497700
	11.8%	1	1.79	504800
	11.1%	1	2.48	500000
	13.3%	1	1.91	500000
80	11.4%	1	2.55	600000
	15.2%	1	2.07	600000

	11.1%	1	1.99	600000
	10.9%	1	2.65	600000
	12.0%	1	3.00	700000
	12.1%	1	9.00	600000
	36.8%	1	3.32	1200000
	14.3%	1	2.32	700000
	12.3%	1	3.18	1200000
	50.9%	1	2.31	700000
90	12.5%	1	3.00	900000
	9.0%	1	3.16	900000
	15.5%	1	3.16	700000
	36.8%	1	2.45	700000
	15.5%	1	2.47	900000
	14.5%	1	3.21	900000
	17.4%	1	2.50	900000
	14.0%	1	3.16	900000
	16.5%	1	2.78	900000
	15.0%	1	2.82	900000
100	15.5%	1	3.27	900000
	18.5%	1	3.16	900000
	17.3%	1	2.45	900000
	17.1%	1	2.53	900000
	19.3%	1	2.45	900000
	15.1%	1	3.16	1000000
	15.5%	1	2.62	1200000
	50.9%	1	3.18	1600000
	17.6%	1	2.65	1000000
	22.0%	1	3.33	1200000
110	16.6%	1	3.18	1100000
	50.9%	1	3.19	1100000
	14.1%	1	2.66	1100000
	19.3%	2	2.78	1100000
	16.0%	1	4.27	1100000
	18.2%	1	2.72	1200000

	16.9%	1	3.18	1100000
	50.9%	1	3.39	1100000
	21.0%	1	2.79	1200000
	20.8%	1	19.71	1200000
120	16.7%	1	8.03	2400000
	20.7%	1	3.10	1200000
	10.0%	1	3.62	1200000
	50.9%	1	3.18	1200000
	56.4%	1	3.05	1200000
	22.0%	1	3.66	1600000
	20.5%	1	3.33	1200000
	21.3%	1	3.11	1200000
	22.0%	1	4.41	1600000
	59.7%	1	3.33	2100000
130	18.4%	1	4.47	1200000
	22.0%	1	3.11	1200000
	20.2%	1	3.33	1600000
	24.7%	1	3.75	1300000
	20.2%	1	3.35	1300000
	18.5%	1	3.16	1400000
	22.1%	1	3.71	1500000
	20.2%	1	3.19	1500000
	19.7%	1	3.24	1600000
	22.0%	1	3.84	1600000
140	19.5%	1	3.33	1600000
	20.7%	1	3.30	2100000
	59.7%	1	3.86	1700000
	22.0%	1	3.45	1700000
	18.9%	1	4.47	2100000
	23.6%	2	3.36	1700000
	59.7%	1	4.05	2100000
	59.7%	1	3.41	1800000
	21.4%	1	4.47	2600000
	26.0%	1	3.54	1800000

150	23.4%	1	4.47	1900000
	19.2%	1	3.68	1900000
	26.8%	1	4.74	3900000
	13.0%	1	8.30	2000000
	33.1%	1	10.10	2100000
	59.7%	1	4.23	2100000
	26.3%	1	4.70	2200000
	26.0%	1	4.37	2200000
	27.4%	1	4.47	2600000
	26.0%	1	4.67	2200000
160	30.6%	1	4.70	2600000
	28.0%	1	5.06	2200000
	30.0%	1	4.74	2200000
	26.0%	1	4.26	2600000
	26.6%	1	4.74	2300000
	27.4%	1	4.85	2400000
	48.9%	1	4.34	3600000
	27.7%	1	16.22	2500000
	56.9%	1	4.74	2600000
	44.7%	1	5.18	2600000
170	26.0%	1	4.24	2700000
	27.6%	1	4.38	3000000
	28.6%	1	6.84	3600000
	29.6%	1	5.04	3100000
	27.4%	1	4.71	3600000
	48.9%	1	4.74	3200000
	48.9%	1	5.24	3200000
	29.8%	2	5.03	3300000
	32.0%	1	5.16	3300000
	35.9%	1	7.12	6800000
180	40.6%	2	6.84	3600000
	48.9%	1	6.26	3500000
	21.1%	1	6.84	3500000
	44.0%	2	5.42	3500000

	66.4%	1	5.66	3600000
	48.9%	2	5.50	4400000
	36.2%	1	13.99	3600000
	39.8%	2	6.10	3700000
	44.6%	1	6.84	3800000
	40.9%	1	7.20	4400000
190	36.2%	1	7.10	3900000
	42.6%	1	6.96	4400000
	36.2%	1	6.84	3800000
	68.1%	1	7.50	3900000
	55.0%	2	14.07	4099999.9999999995
	43.6%	1	7.50	4099999.9999999995
	41.4%	2	7.31	4300000
	44.6%	1	7.06	4300000
	43.8%	1	6.84	4200000
	36.2%	1	7.50	4400000
200	42.7%	1	6.84	4400000
	36.2%	1	7.58	4500000
	65.3%	1	7.05	4300000
	68.2%	1	6.87	4500000
	53.9%	2	7.84	4500000
	44.4%	2	14.46	4500000
	47.4%	2	14.81	4099999.9999999995
	46.2%	1	7.74	9000000
	72.0%	1	7.50	8700000
	72.1%	1	7.50	8700000
210	28.7%	1	7.74	4099999.9999999995
	61.7%	1	7.70	4300000
	73.1%	1	7.60	4300000
	72.1%	1	19.40	4200000
	52.8%	1	8.47	4200000
	72.1%	1	21.92	4099999.9999999995
	42.4%	1	17.56	4099999.9999999995
	39.8%	2	14.92	4200000

	51.8%	1	7.66	4000000
	44.2%	1	7.19	4099999.9999999995
220	42.7%	1	7.08	4200000
	72.1%	1	8.25	4099999.9999999995
	69.4%	1	6.22	7000000
	67.8%	1	7.02	4099999.9999999995
	72.1%	1	6.73	4099999.9999999995
	53.7%	1	16.08	4000000
	44.4%	1	7.70	3900000
	39.5%	1	6.22	7000000
	40.5%	1	7.16	3900000
	39.4%	1	6.22	7000000
230	69.4%	1	6.42	3900000
	41.2%	1	6.52	3700000
	69.4%	1	6.96	3700000
	48.1%	2	6.32	3700000
	45.7%	2	6.68	3500000
	44.5%	1	8.51	3700000
	39.4%	1	6.49	7000000
	39.1%	2	6.22	7000000
	37.4%	1	7.62	3500000
	69.4%	1	6.30	7000000
240	18.7%	1	6.22	3500000
	58.3%	1	6.22	3400000
	64.0%	1	19.74	3500000
	69.4%	1	12.86	3500000
	65.4%	1	21.57	3500000
	46.3%	1	12.52	3500000
	39.3%	1	6.49	3500000
	41.5%	1	6.47	3500000
	39.1%	1	6.49	3600000
	39.1%	1	6.30	3600000
250	38.2%	1	6.46	3600000
	37.8%	1	6.51	3600000



	39.9%	1	6.58	3500000
	41.4%	1	6.49	3600000
	42.3%	1	6.40	3600000
	39.1%	1	6.53	3500000
	41.4%	1	6.67	3500000
	39.3%	1	6.49	3500000
	36.3%	1	6.40	3500000
	41.6%	1	6.30	3500000
260	39.1%	2	6.40	3500000
	38.9%	1	6.58	3600000
	38.2%	1	6.45	3400000
	37.2%	1	6.32	3100000
	69.3%	1	5.84	3400000
	39.9%	1	6.41	3600000
	46.9%	1	6.58	3600000
	52.2%	1	21.41	3600000
	35.4%	1	6.58	7200000
	39.9%	1	13.08	3600000
270	23.4%	1	6.52	3600000
	39.9%	1	6.25	3600000
	45.8%	1	6.40	3700000
	68.1%	2	14.97	3600000
	50.9%	1	6.97	3600000
	38.9%	1	6.58	3500000
	40.3%	1	6.68	3500000
	38.4%	1	6.56	3300000
	38.3%	1	5.84	3100000
	39.9%	1	5.61	3400000
280	38.1%	1	6.48	3400000
	33.1%	1	6.49	3400000
	46.9%	1	5.84	3100000
	41.0%	2	6.06	3400000
	36.8%	1	6.46	6600000
	46.9%	1	5.84	3100000

	36.9%	1	6.22	3200000
	68.9%	1	5.79	3200000
	46.9%	1	12.38	3300000
	66.3%	1	5.92	3200000
290	47.3%	1	5.98	3200000
	26.3%	2	5.84	3200000
	34.1%	1	5.78	3200000
	37.0%	1	5.61	3200000
	38.4%	1	7.59	3100000
	29.1%	1	8.43	3100000
	48.6%	1	5.61	3300000
	38.4%	1	6.03	3300000
	46.9%	1	5.92	3100000
	46.7%	1	5.71	3300000
300	33.1%	1	5.71	6400000

#### A.1.6 MIL OBJETOS

**Tabela 35:** 1000 Objetos Pre-Runtime Box OnCollisionEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
60				

	0.0%	8	0.00	0
	0.0%	4	0.01	
				0
	0.0%	4	0.00	0
70	0.0%	8	0.00	0
	0.0%	8	0.00	0
	0.0%	6		
			0.00	0
	0.0%	10	0.00	0
	0.0%	4	0.00	0
	0.0%	6	0.00	0
	0.0%	10	0.00	0
80	0.0%	8	0.00	0
	0.0%	18	0.00	0
	0.0%	10	0.00	0
	0.0%	4	0.00	0
	0.0%	22	0.00	0
	0.0%	10	0.00	0
	0.0%	2	0.00	0
	0.0%	10	0.01	0
	0.0%	10	0.01	0
	0.1%	10	0.00	0
90	0.0%	10	0.00	0
	0.1%	8	0.00	0
	0.0%	10	0.00	0
	0.0%	20	0.01	0
	0.0%	14	0.00	0
	0.0%	22	0.01	0

	0.0%	20	0.00	0
	0.0%	14	0.01	
				0
	0.0%	12	0.00	0
100	0.0%	8	0.00	0
	0.0%	10	0.00	0
	0.1%	10	0.00	0
	0.0%	12	0.00	0
	0.0%	14	0.01	0
	0.0%	20	0.01	0
	0.0%	22	0.01	0
	0.0%	20	0.01	0
	0.0%	22	0.00	0
	0.0%	18	0.01	0
110	0.0%	22	0.01	0
	0.0%	34	0.00	0
	0.1%	20	0.00	0
	0.0%	14	0.00	0
	0.0%	46	0.00	0
	0.0%	18	0.01	0
	0.0%	20	0.01	0
	0.0%	26	0.01	0
	0.0%	24	0.01	0
	0.0%	40	0.00	0
120	0.1%	16	0.01	0
	0.0%	14	0.00	0
	0.1%	22	0.01	0
	0.1%	46	0.00	0
	0.0%	16	0.01	0
	0.0%	14	0.00	0
	0.0%	18	0.01	0
	0.0%	20	0.00	0
	0.0%	10	0.00	0
	0.0%	12	0.00	0

130	0.0%	24	0.01	0
	0.0%	24	0.00	0
	0.0%	34	0.00	0
	0.0%	46	0.01	0
	0.1%	18	0.00	0
	0.1%	14	0.02	0
	0.0%	44	0.01	0
	0.0%	10	0.01	0
	0.0%	46	0.02	0
	0.0%	22	0.01	0
140	0.1%	44	0.02	0
	0.0%	46	0.01	0
	0.0%	30	0.02	0
	0.1%	22	0.01	0
	0.1%	26	0.01	0
	0.0%	28	0.01	0
	0.1%	24	0.03	0
	0.0%	48	0.05	0
	0.0%	60	0.02	0
	0.0%	72	0.00	0
150	0.1%	44	0.02	0
	0.1%	44	0.02	0
	0.1%	30	0.01	0
	0.2%	18	0.03	0
	0.2%	60	0.02	0
	0.0%	70	0.02	0
	0.0%	32	0.02	0
	0.1%	44	0.01	0
	0.0%	70	0.01	0
	0.1%	40	0.01	0
160	0.1%	40	0.00	0
	0.1%	32	0.02	0
	0.1%	42	0.01	0
	0.0%	22	0.02	0

	0.0%	46	0.01	0
	0.1%	44	0.02	0
	0.0%	70	0.02	0
	0.1%	54	0.02	0
	0.0%	38	0.02	0
	0.1%	56	0.03	0
170	0.1%	70	0.03	0
	0.1%	42	0.03	0
	0.0%	70	0.02	0
	0.1%	60	0.02	0
	0.1%	56	0.03	0
	0.0%	46	0.02	0
	0.3%	58	0.11	0
	0.1%	64	0.07	0
	0.1%	118	0.03	0
	0.1%	64	0.05	0
180	0.2%	156	0.03	0
	0.1%	122	0.03	0
	0.1%	68	0.03	0
	0.1%	80	0.03	0
	0.0%	62	0.03	0
	0.1%	64	0.03	0
	0.2%	68	0.03	0
	0.3%	74	0.09	0
	0.2%	146	0.03	0
	0.1%	220	0.05	0
190	0.2%	162	0.02	0
	0.1%	76	0.03	0
	0.1%	62	0.02	0
	0.1%	220	0.03	0
	0.3%	64	0.07	0
	0.2%	64	0.03	0
	0.3%	336	0.03	0
	0.1%	62	0.03	0

	0.1%	220	0.03	0
	0.1%	78	0.37	0
200	0.1%	74	0.03	0
	0.2%	336	0.04	0
	0.2%	68	0.14	0
	0.1%	336	0.17	0
	0.2%	90	0.37	0
	0.1%	86	0.37	0
	0.2%	220	0.09	0
	0.3%	248	0.22	0
	0.2%	220	0.16	0
	0.1%	872	0.19	0
210	0.4%	164	0.21	0
	0.3%	176	0.22	0
	0.3%	336	0.37	0
	0.2%	436	0.40	0
	0.3%	872	0.37	0
	0.3%	300	0.37	0
	0.3%	830	0.38	0
	0.3%	336	0.37	0
	0.3%	872	0.42	0
	0.3%	454	0.49	0
220	0.3%	830	0.37	0
	0.3%	538	0.42	0
	0.3%	648	0.52	0
	0.2%	740	0.42	0
	0.2%	830	0.37	0
	0.3%	828	0.42	0
	0.4%	872	0.37	0
	0.3%	716	0.42	0
	0.3%	786	0.41	0
	0.2%	626	0.37	0
230	0.3%	872	0.34	0
	0.3%	830	0.20	0

	0.2%	626	0.20	0
	0.2%	956	0.31	0
	0.2%	854	0.37	0
	0.2%	522	0.32	0
	0.3%	724	0.35	0
	0.2%	522	0.32	0
	0.2%	830	0.24	0
	0.3%	704	0.36	0
240	0.2%	626	0.24	0
	0.2%	748	0.30	0
	0.2%	728	0.20	0
	0.2%	626	0.28	0
	0.2%	602	0.20	0
	0.2%	614	0.47	0
	0.2%	522	0.30	0
	0.1%	608	0.23	0
	0.2%	626	0.26	0
	0.1%	522	0.24	0
250	0.2%	620	0.24	0
	0.1%	626	0.20	0
	0.2%	576	0.16	0
	0.1%	438	0.15	0
	0.1%	522	0.22	0
	0.1%	656	0.13	0
	0.2%	522	0.16	0
	0.1%	432	0.10	0
	0.1%	358	0.04	0
	0.1%	470	0.18	0
260	0.2%	388	0.29	0
	0.1%	400	0.04	0
	0.1%	256	0.19	0
	0.1%	312	0.12	0
	0.1%	92	0.16	0
	0.1%	300	0.16	0



	0.1%	52	0.15	0
	0.1%	368	0.18	0
	0.1%	206	0.12	0
	0.1%	52	0.16	0
270	0.0%	184	0.11	0
	0.1%	164	0.09	0
	0.1%	296	0.04	0
	0.1%	300	0.09	0
	0.1%	300	0.08	0
	0.1%	252	0.07	0
	0.0%	236	0.08	0
	0.1%	244	0.04	0
	0.1%	300	0.05	0
	0.1%	240	0.05	0
280	0.1%	52	0.05	0
	0.2%	200	0.03	0
	0.1%	204	0.04	0
	0.0%	82	0.03	0
	0.1%	162	0.04	0
	0.1%	126	0.04	0
	0.0%	106	0.07	0
	0.1%	144	0.05	0
	0.1%	100	0.06	0
	0.1%	82	0.04	0
290	0.1%	70	0.10	0
	0.1%	52	0.03	0
	0.0%	92	0.03	0
	0.1%	52	0.04	0
	0.0%	82	0.08	0
	0.1%	52	0.06	0
	0.0%	24	0.04	0
	0.1%	34	0.04	0
	0.1%	72	0.03	0
	0.0%	104	0.04	0

300	0.1%	168	0.02	0
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**Tabela 36:** 1000 Objetos Pre-Runtime Box OnCollisionExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
70	0.4%	2		0
			0.00	
	0.0%	2		0
	0.0%			
	0.0%			
			0.00	
		4	0.00	0
		114	0.00	0
	0.0%	4	0.00	0
80	0.0%	4	0.00	0
	0.0%	6		0
	0.0%		0.00	
	0.0%	12		0
		2	0.00	0
	0.0%			
		2	0.00	

			0.00	0
	0.0%	12	0.00	0
	0.0%	8	0.00	0
90	0.0%	32	0.00	0
	0.0%	8	0.00	0
	0.0%	6	0.00	0
	0.0%	6	0.00	0
	0.0%	32	0.00	0
	0.0%	32	0.00	0
	0.0%	2	0.00	0
	0.0%	18	0.00	0
	0.0%	10	0.00	0
	0.0%	6	0.06	0
100	0.0%	6	0.00	0
	0.0%	2	0.00	0
	0.0%	18	0.00	0
	0.0%	18	0.00	0
	0.0%	16	0.01	0
	0.0%	16	0.01	0
	0.0%	18	0.00	0
	0.0%	14	0.06	0
	0.0%	22	0.01	0
	0.0%	12	0.00	0
110	0.0%	22	0.00	0
	0.1%	8	0.01	0
	0.1%	114	0.00	0
	0.0%	10	0.02	0
	0.0%	18	0.01	0
	0.1%	18	0.01	0
	0.0%	14	0.00	0
	0.0%	10	0.03	0
	0.0%	14	0.00	0
	0.0%	30	0.00	0
120	0.0%	10	0.06	0

	0.0%	46	0.06	0
	0.0%	16	0.00	0
	0.0%	14	0.00	0
	0.0%	10	0.00	0
	0.3%	114	0.00	0
	0.0%	12	0.01	0
	0.1%	114	0.01	0
	0.0%	16	0.00	0
	0.0%	12	0.01	0
130	0.0%	18	0.01	0
	0.0%	12	0.01	0
	0.0%	10	0.01	0
	0.0%	10	0.00	0
	0.0%	32	0.01	0
	0.0%	14	0.11	0
	0.0%	8	0.00	0
	0.0%	40	0.00	0
	0.0%	32	0.00	0
	0.0%	12	0.01	0
140	0.0%	32	0.11	0
	0.0%	18	0.00	0
	0.0%	12	0.01	0
	0.3%	30	0.25	0
	0.1%	18	0.01	0
	0.0%	32	0.03	0
	0.1%	16	0.01	0
	0.0%	18	0.01	0
	0.1%	18	0.01	0
	0.1%	18	0.01	0
150	0.3%	14	0.01	0
	0.0%	50	0.01	0
	0.0%	340	0.25	0
	0.0%	46	0.06	0
	0.0%	24	0.01	0

	0.1%	28	0.06	0
	0.0%	28	0.02	0
	0.1%	22	0.03	0
	0.0%	28	0.01	0
	0.1%	18	0.01	0
160	0.0%	340	0.03	0
	0.1%	28	0.02	0
	0.3%	114	0.04	0
	0.0%	114	0.02	0
	0.1%	22	0.01	0
	0.3%	46	0.02	0
	0.1%	46	0.06	0
	0.1%	42	0.03	0
	0.2%	38	0.02	0
	0.0%	28	0.09	0
170	0.1%	72	0.25	0
	0.2%	46	0.41	0
	0.1%	42	0.06	0
	0.2%	114	0.04	0
	0.1%	340	0.06	0
	0.3%	926	0.03	0
	0.3%	46	0.03	0
	0.1%	114	0.03	0
	0.3%	46	0.02	0
	0.1%	90	0.25	0
180	0.1%	46	0.02	0
	0.1%	106	0.41	0
	0.2%	62	0.02	0
	0.1%	340	0.05	0
	0.3%	926	0.25	0
	0.1%	38	0.03	0
	0.3%	42	0.03	0
	0.3%	340	0.01	0
	0.2%	56	0.02	0

	0.1%	46	0.02	0
190	0.3%	104	0.03	0
	0.3%	50	0.25	0
	0.2%	68	0.02	0
	0.2%	46	0.03	0
	0.2%	150	0.25	0
	0.3%	340	0.41	0
	0.2%	34	0.15	0
	0.1%	926	0.13	0
	0.2%	40	0.10	0
	0.3%	340	0.25	0
200	0.2%	604	0.25	0
	0.3%	64	0.08	0
	0.2%	198	0.41	0
	0.3%	926	0.07	0
	0.3%	340	0.15	0
	0.3%	252	0.17	0
	0.3%	604	0.25	0
	0.2%	356	0.16	0
	0.3%	926	0.41	0
	0.2%	340	0.16	0
210	0.2%	388	0.21	0
	0.2%	522	0.25	0
	0.3%	684	0.35	0
	0.1%	926	0.38	0
	0.3%	596	0.41	0
	0.3%	550	0.27	0
	0.3%	926	0.43	0
	0.2%	926	0.41	0
	0.1%	676	0.41	0
	0.3%	938	0.49	0
220	0.4%	604	0.44	0
	0.2%	604	0.45	0
	0.3%	838	0.25	0

	0.2%	852	0.42	0
	0.3%	926	0.25	0
	0.2%	318	0.41	0
	0.2%	858	0.37	0
	0.3%	604	0.12	0
	0.2%	780	0.25	0
	0.3%	318	0.12	0
230	0.3%	604	0.37	0
	0.1%	596	0.25	0
	0.2%	604	0.33	0
	0.3%	624	0.25	0
	0.3%	604	0.31	0
	0.1%	640	0.32	0
	0.2%	688	0.41	0
	0.1%	526	0.25	0
	0.2%	466	0.38	0
	0.1%	318	0.29	0
240	0.1%	604	0.24	0
	0.1%	478	0.34	0
	0.1%	444	0.45	0
	0.2%	318	0.37	0
	0.1%	318	0.25	0
	0.2%	480	0.12	0
	0.1%	318	0.26	0
	0.1%	318	0.23	0
	0.3%	454	0.12	0
	0.1%	104	0.22	0
250	0.2%	274	0.12	0
	0.1%	104	0.12	0
	0.1%	308	0.16	0
	0.1%	318	0.14	0
	0.1%	268	0.12	0
	0.2%	318	0.18	0
	0.1%	230	0.04	0

	0.1%	104	0.04	0
	0.1%	104	0.12	0
	0.1%	202	0.12	0
260	0.1%	240	0.14	0
	0.1%	104	0.22	0
	0.1%	316	0.13	0
	0.1%	286	0.12	0
	0.0%	104	0.20	0
	0.1%	118	0.04	0
	0.1%	104	0.04	0
	0.0%	180	0.14	0
	0.1%	104	0.29	0
	0.0%	180	0.04	0
270	0.1%	104	0.17	0
	0.0%	118	0.10	0
	0.1%	118	0.12	0
	0.0%	102	0.08	0
	0.0%	98	0.04	0
	0.1%	102	0.04	0
	0.0%	118	0.05	0
	0.0%	58	0.04	0
	0.1%	104	0.10	0
	0.1%	118	0.04	0
280	0.0%	102	0.04	0
	0.0%	114	0.04	0
	0.0%	64	0.03	0
	0.1%	102	0.03	0
	0.0%	68	0.04	0
	0.1%	102	0.10	0
	0.0%	66	0.10	0
	0.0%	136	0.03	0
	0.0%	118	0.03	0
	0.0%	118	0.03	0
290	0.0%	126	0.05	0



	0.1%	118	0.02	0
	0.0%	118	0.04	0
	0.0%	102	0.07	0
	0.0%	102	0.03	0
	0.0%	102	0.03	0
	0.0%	46	0.11	0
	0.0%	102	0.03	0
	0.1%	140	0.04	0
	0.0%	132	0.07	0
300	0.0%	128	0.03	0

**Tabela 37:** 1000 Objetos Pre-Runtime Box OnCollisionStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	0.7%	800	0.58	0
	0.6%	1502	2.20	0
	2.8%	1502	0.89	0
	0.6%	200	2.20	0
	0.9%	200	1.46	0
	0.6%	200	0.20	0
	0.5%	200	1.46	0
	4.1%	200	0.10	0
10	4.1%	200	0.09	0
	4.1%	200	0.09	0
	0.5%	200	2.20	0
	0.7%	3004	0.10	0
	0.6%	200	0.12	0
	4.1%	3004	0.10	0
	2.8%	200	0.11	0
	2.8%	200	0.09	0
	0.5%	200	0.09	0
	0.5%	200	0.09	0

20	0.6%	200	0.09	0
	0.6%	200	2.20	0
	0.6%	200	2.20	0
	0.6%	200	0.10	0
	4.1%	200	0.10	0
	0.6%	200	0.08	0
	4.1%	200	0.10	0
	0.6%	200	0.10	0
	0.6%	200	0.10	0
	0.3%	200	0.08	0
30	0.6%	200	0.09	0
	0.8%	400	0.09	0
	0.6%	200	0.08	0
	0.5%	200	0.08	0
	0.5%	200	0.10	0
	0.6%	200	0.09	0
	0.6%	200	0.09	0
	0.6%	200	0.10	0
	0.5%	200	0.10	0
	0.6%	200	0.09	0
40	0.4%	200	0.09	0
	0.6%	200	0.08	0
	0.5%	200	0.09	0
	0.6%	200	0.08	0
	0.5%	200	0.09	0
	0.5%	200	0.08	0
	0.6%	200	0.11	0
	0.5%	200	0.10	0
	0.6%	200	0.10	0
	0.5%	200	0.08	0
50	0.6%	200	0.11	0
	0.5%	200	0.11	0
	0.5%	212	0.08	0
	0.4%	200	0.09	0

	0.6%	200	0.08	0
	0.5%	200	0.11	0
	0.6%	212	0.08	0
	0.7%	200	0.21	0
	0.5%	212	1.46	0
	0.5%	200	0.08	0
60	0.6%	212	0.11	0
	0.6%	200	0.09	0
	0.5%	200	0.10	0
	4.9%	200	0.09	0
	0.8%	1502	0.10	0
	1.0%	212	0.11	0
	0.8%	200	0.09	0
	0.5%	200	0.09	0
	0.5%	212	0.08	0
	0.6%	208	0.11	0
70	0.5%	212	0.09	0
	4.9%	3030	0.10	0
	0.5%	212	0.09	0
	4.9%	3030	0.11	0
	0.7%	212	0.09	0
	4.9%	212	0.10	0
	0.6%	214	0.15	0
	0.8%	222	0.10	0
	0.5%	228	0.09	0
	4.9%	342	0.13	0
80	0.7%	226	0.11	0
	0.5%	3030	0.15	0
	4.9%	226	0.12	0
	0.6%	226	0.14	0
	0.5%	3030	0.12	0
	0.6%	3030	0.16	0
	0.8%	3030	0.84	0
	0.5%	236	0.12	0

	0.8%	342	0.15	0
	0.8%	248	0.15	0
90	0.9%	320	0.14	0
	0.4%	254	0.12	0
	2.9%	3030	0.13	0
	0.8%	342	0.15	0
	1.0%	342	0.16	0
	0.8%	274	0.16	0
	0.6%	320	0.14	0
	0.8%	278	0.19	0
	0.8%	342	0.15	0
	0.9%	280	0.15	0
100	0.8%	342	0.16	0
	0.8%	320	0.14	0
	0.9%	342	0.15	0
	1.0%	320	0.15	0
	1.0%	330	0.14	0
	0.9%	342	0.16	0
	0.9%	320	0.16	0
	0.9%	338	0.19	0
	1.0%	342	0.18	0
	1.2%	320	0.19	0
110	1.3%	334	0.15	0
	1.0%	330	0.16	0
	1.3%	320	0.15	0
	1.1%	320	0.19	0
	2.9%	326	0.20	0
	1.2%	342	0.16	0
	1.4%	352	0.16	0
	1.7%	362	0.16	0
	1.2%	372	0.19	0
	1.7%	382	0.20	0
120	1.3%	396	0.19	0
	1.7%	408	0.20	0

	1.7%	492	0.20	0
	1.2%	848	0.19	0
	1.2%	424	0.20	0
	1.2%	492	0.19	0
	2.6%	492	0.22	0
	1.1%	492	0.19	0
	2.6%	430	0.19	0
	2.6%	444	0.22	0
130	2.6%	450	0.90	0
	1.3%	492	0.22	0
	1.7%	450	0.22	0
	1.7%	492	0.19	0
	1.4%	488	0.20	0
	1.1%	486	0.20	0
	2.6%	492	0.20	0
	1.7%	474	0.20	0
	2.2%	484	0.22	0
	2.6%	492	0.20	0
140	2.1%	992	0.22	0
	1.7%	512	0.24	0
	1.7%	526	0.24	0
	1.3%	516	0.22	0
	1.7%	542	0.20	0
	2.6%	552	0.24	0
	1.4%	1154	0.22	0
	2.6%	606	0.24	0
	2.8%	598	0.20	0
	2.2%	1194	0.20	0
150	2.1%	668	0.21	0
	1.6%	1194	0.22	0
	2.5%	1352	0.30	0
	1.7%	696	0.30	0
	1.7%	734	0.30	0
	1.8%	750	0.22	0

	1.8%	1194	0.24	0
	2.2%	1194	0.30	0
	1.8%	760	0.22	0
	4.4%	1352	0.23	0
160	2.3%	784	0.24	0
	3.9%	1604	0.31	0
	2.5%	822	0.46	0
	2.8%	1194	0.31	0
	4.4%	850	0.33	0
	2.5%	1352	0.30	0
	3.3%	874	0.30	0
	1.4%	1194	0.31	0
	4.4%	888	0.23	0
	4.3%	1352	0.31	0
170	3.2%	882	0.24	0
	4.4%	1842	0.25	0
	3.4%	1906	0.30	0
	2.6%	1352	0.24	0
	3.0%	1352	0.43	0
	4.4%	1980	0.24	0
	4.4%	980	0.31	0
	1.6%	986	0.43	0
	4.2%	1028	0.88	0
	4.0%	1048	0.65	0
180	4.0%	1090	0.31	0
	3.2%	1194	0.28	0
	3.5%	2192	0.30	0
	4.2%	1186	0.29	0
	3.9%	1194	0.43	0
	4.4%	10166	0.30	0
	4.0%	1242	0.43	0
	5.3%	1352	0.28	0
	4.0%	2496	0.43	0
	4.4%	1252	0.31	0

190	2.7%	1320	0.34	0
	5.2%	1352	0.34	0
	5.2%	1352	0.43	0
	3.4%	4206	0.31	0
	4.5%	5840	0.31	0
	4.7%	10166	0.34	0
	3.7%	4556	0.31	0
	4.0%	3064	0.35	0
	5.7%	6474	2.48	0
	4.0%	10166	0.38	0
200	5.8%	3096	0.43	0
	4.0%	4904	0.39	0
	4.1%	7034	0.43	0
	5.1%	7394	0.51	0
	5.2%	10166	2.48	0
	4.0%	12268	0.45	0
	3.4%	13784	6.53	0
	5.1%	6474	1.51	0
	3.4%	10166	2.48	0
	4.2%	14158	1.20	0
210	6.0%	6474	2.48	0
	4.0%	3006	0.44	0
	5.7%	13832	0.45	0
	4.0%	14116	6.53	0
	5.0%	14216	0.51	0
	5.4%	10166	0.58	0
	6.3%	12560	2.48	0
	2.9%	11714	0.55	0
	5.0%	11484	6.53	0
	4.0%	11956	2.48	0
220	3.4%	6474	1.05	0
	5.1%	11978	1.15	0
	3.4%	11706	0.57	0
	4.8%	6474	0.60	0

	4.9%	3006	6.53	0
	5.1%	3006	0.60	0
	4.7%	11996	0.61	0
	5.8%	4554	4.07	0
	4.0%	11916	0.67	0
	4.9%	11490	6.53	0
230	4.0%	11336	0.63	0
	5.5%	10166	5.57	0
	4.0%	11200	0.67	0
	5.5%	3138	6.53	0
	6.0%	10528	0.72	0
	2.9%	10412	2.95	0
	5.8%	6474	2.48	0
	2.9%	8598	3.11	0
	4.6%	10282	1.47	0
	3.4%	10354	4.07	0
240	5.9%	10166	1.53	0
	4.0%	3006	2.93	0
	2.8%	8354	4.07	0
	2.8%	3006	2.48	0
	6.6%	4554	3.22	0
	2.8%	6634	3.48	0
	5.7%	4554	5.57	0
	3.0%	6484	4.54	0
	6.6%	8216	5.57	0
	4.1%	10002	5.46	0
250	5.8%	3004	6.53	0
	4.1%	4626	5.49	0
	4.2%	3004	5.85	0
	4.9%	3004	5.17	0
	4.1%	9372	7.08	0
	4.7%	9450	4.07	0
	6.3%	9722	6.83	0
	4.6%	1502	6.76	0



	5.3%	1502	4.07	0
	3.6%	1502	6.75	0
260	4.0%	9440	6.53	0
	0.7%	3004	5.57	0
	5.4%	9406	6.65	0
	3.4%	9308	6.58	0
	6.1%	7940	5.57	0
	5.9%	8066	6.29	0
	5.4%	6518	5.53	0
	5.3%	6474	4.07	0
	4.0%	4774	5.91	0
	2.9%	6334	5.90	0
270	2.9%	4716	5.57	0
	5.2%	3156	3.09	0
	5.0%	4728	5.86	0
	5.4%	4640	6.23	0
	5.6%	3074	5.49	0
	3.4%	3006	4.73	0
	5.5%	3094	5.65	0
	5.1%	1544	4.07	0
	5.1%	3078	6.29	0
	5.1%	4554	4.51	0
280	3.0%	4554	5.57	0
	4.0%	5964	4.97	0
	2.8%	4452	4.02	0
	2.8%	4490	3.30	0
	5.4%	3006	4.92	0
	4.9%	6092	2.20	0
	2.8%	4638	4.42	0
	4.6%	3138	4.02	0
	5.7%	3138	3.09	0
	5.1%	3140	2.98	0
290	4.7%	4664	6.68	0
	1.9%	4534	4.71	0

	4.9%	1502	1.46	0
	4.8%	2952	1.46	0
	3.4%	4454	5.12	0
	5.0%	3004	1.46	0
	5.1%	2958	4.50	0
	3.7%	3004	2.20	0
	0.7%	2992	2.20	0
		2998	5.35	0
300		3004	4.07	0

**Tabela 38:** 1000 Objetos Pre-Runtime Box OnTriggerEnter2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
30				
	0.7%	4	0.11	

40				
				0
	0.0%		0.00	0
	0.0%			
50				
		8		
			0.00	0
	0.0%		0.00	
		8		
60		8		0
	0.0%	4	0.00	0
	0.0%		0.00	0
		8		
	0.0%		0.00	0
			0.00	
70				

		2		
	0.0%	2		0
	0.0%		0.00	0
80				
		4		
	0.0%	2	0.01	0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%	2	0.00	
	0.0%	4	0.00	
90				
				0
				0
	0.0%	2	0.00	0
	0.0%		0.00	
	0.0%	4	0.00	0
	0.0%	2		0
100		4	0.00	
	0.0%			0
		4	0.00	0
	0.0%	4	0.00	0
	0.0%		0.00	0
			0.00	
		2		

	0.0%	2		0
	0.0%		0.00	0
			0.00	
110				
		2		
	0.0%			0
			0.00	0
120				
		2		
	0.0%			
				0
		2		
	0.0%		0.00	
130				0
140				

		4		
	0.0%		0.01	
	0.0%			0
		2		
		2	0.00	
150	0.0%		0.00	0
		2		
	0.0%	2	0.00	0
	0.0%			
		2	0.00	0
	0.0%			0
		2	0.01	
	0.0%	2	0.00	
160	0.0%			
				0
		2	0.00	0
	0.0%			
		2	0.00	0
	0.0%		0.00	
170		2		0
	0.0%	2	0.00	
				0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

			0.01	
	0.0%	4		0
			0.00	
		2		0
			0.00	
180				
	0.0%			
		2		
	0.0%			0
190		2	0.00	
	0.0%			0
	0.0%	4	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	
200				
	0.0%	4	0.00	0
				0
	0.0%	2	0.00	0
		4	0.00	0
		2		
	0.0%			
	0.0%		0.01	0

		2		
210				
	0.0%		0.01	0
		2		0
	0.0%		0.00	
	0.0%	2	0.01	0
	0.0%	6		0
			0.00	
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.00	0
220	0.0%	2		0
	0.0%	2	0.00	0
				0
	0.0%	2	0.00	0
	0.0%	2		0
	0.0%		0.00	
			0.00	0
		2		
	0.0%	2		
230	0.0%	2		0
				0
			0.01	
			0.00	
			0.00	
	0.0%	4		
	0.0%	2	0.00	0
	0.0%	4	0.00	0
	0.0%			0
		2		0
240	0.0%	2		0
	0.0%			
				0



				0
250				
300				

**Tabela 39:** 1000 Objetos Pre-Runtime Box OnTriggerExit2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory
10				
50				

	0.9%	4	0.09	0
60				
	0.0%	8	0.00	0
	0.0%			
70				
		8	0.00	0
	0.0%			
80				
		2	0.00	0
	0.0%	2	0.00	0
	0.0%	2		0
			0.00	
	0.0%	2	0.00	0
	0.0%	4	0.00	0
90				

	0.0%	2	0.00	0
100				
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.01	0
110	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
120				

	0.0%	2	0.00	0
	0.0%			
130				
140				
150		2	0.00	0
	0.0%			
		2	0.00	0
	0.0%	2		

160			0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
170				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
180				
	0.0%	2	0.00	0
	0.0%	4	0.00	0
190	0.0%	2	0.00	0

	0.0%	4	0.00	0
200				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%			
		2	0.00	0
210	0.0%			
		2	0.00	0
	0.0%	4		
			0.00	0
	0.0%	2	0.00	0
	0.0%	4	0.01	0
	0.0%	2	0.01	0
	0.0%	6	0.01	0
	0.0%	8	0.01	0
220	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%	2	0.00	0

	0.0%	2	0.00	0
230				
	0.0%	2	0.00	0
	0.0%	2	0.00	0
	0.0%			
		2	0.00	0
	0.0%			
		2	0.00	0
	0.0%			
240				
280				
		2	0.00	0
	0.0%			
290				
300				

**Tabela 40:** 1000 Objetos Pre-Runtime Box OnTriggerStay2D

quadrosTotal	totalPercent	calls	totalTime	gcMemory

10				
30				
	0.5%	4	0.08	0
	0.0%	4	0.00	0
	0.0%	4	0.02	0
40	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.00	0
	0.0%	4	0.01	0
	0.0%	12	0.01	0
	0.0%	12	0.01	0
	0.0%	12	0.01	0
50	0.0%	12	0.01	0
	0.0%	12	0.01	0
	0.0%	12	0.01	0
	0.0%	12	0.01	0
	0.0%	12	0.01	0



	0.0%	12	0.01	0
	0.0%	12	0.01	0
	0.1%	12	0.01	0
	0.1%	12	0.03	0
	0.0%	12	0.03	0
60	0.0%	20	0.03	0
	0.1%	20	0.03	0
	0.1%	40	0.00	0
	0.1%	16	0.01	0
	0.1%	16	0.01	0
	0.0%	24	0.01	0
	0.1%	28	0.03	0
	0.0%	28	0.01	0
	0.1%	20	0.01	0
	0.1%	20	0.01	0
70	0.1%	20	0.01	0
	0.1%	28	0.01	0
	0.1%	28	0.01	0
	0.0%	28	0.01	0
	0.1%	28	0.01	0
	0.1%	28	0.01	0
	0.0%	28	0.01	0
	0.1%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	28	0.01	0
80	0.1%	28	0.01	0
	0.0%	28	0.01	0
	0.0%	22	0.01	0
	0.2%	24	0.00	0
	0.0%	24	0.01	0
	0.1%	22	0.03	0
	0.0%	20	0.01	0
	0.1%	24	0.04	0
	0.1%	26	0.01	0

	0.1%	60	0.02	0
90	0.1%	30	0.02	0
	0.1%	34	0.02	0
	0.1%	34	0.02	0
	0.1%	34	0.02	0
	0.1%	34	0.02	0
	0.1%	40	0.02	0
	0.1%	34	0.01	0
	0.1%	34	0.02	0
	0.1%	32	0.01	0
	0.1%	34	0.02	0
100	0.1%	36	0.02	0
	0.1%	36	0.02	0
	0.0%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.01	0
	0.1%	36	0.03	0
	0.1%	36	0.02	0
	0.1%	40	0.02	0
	0.4%	40	0.02	0
	0.2%	40	0.08	0
110	0.1%	44	0.09	0
	0.2%	42	0.03	0
	0.1%	44	0.02	0
	0.1%	44	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.0%	42	0.02	0
	0.3%	42	0.02	0
	0.2%	40	0.02	0
	0.1%	44	0.09	0
120	0.1%	46	0.03	0
	0.1%	88	0.02	0
	0.1%	42	0.02	0

	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
130	0.1%	40	0.02	0
	0.1%	42	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.1%	40	0.02	0
	0.2%	88	0.02	0
	0.0%	42	0.04	0
	0.3%	42	0.02	0
	0.2%	42	0.06	0
	0.1%	42	0.03	0
140	0.1%	88	0.02	0
	0.1%	84	0.03	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.1%	42	0.02	0
	0.0%	42	0.02	0
	0.2%	42	0.02	0
	0.3%	42	0.02	0
	0.3%	42	0.10	0
	0.2%	42	0.08	0
150	0.2%	88	0.02	0
	0.1%	92	0.03	0
	0.1%	52	0.03	0
	0.2%	46	0.02	0
	0.3%	46	0.04	0
	0.2%	46	0.05	0
	0.1%	52	0.03	0

	0.1%	46	0.02	0
	0.1%	46	0.03	0
	0.1%	48	0.02	0
160	0.2%	48	0.02	0
	0.1%	50	0.02	0
	0.1%	48	0.02	0
	0.2%	50	0.02	0
	0.2%	50	0.03	0
	0.2%	50	0.03	0
	0.1%	52	0.03	0
	0.1%	50	0.02	0
	0.2%	48	0.02	0
	0.2%	104	0.02	0
170	0.1%	46	0.07	0
	0.2%	104	0.02	0
	0.1%	46	0.02	0
	0.1%	48	0.04	0
	0.0%	48	0.02	0
	0.1%	50	0.03	0
	0.2%	50	0.02	0
	0.2%	50	0.06	0
	0.2%	52	0.06	0
	0.7%	100	0.06	0
180	0.1%	102	0.06	0
	0.7%	100	0.03	0
	0.1%	104	0.02	0
	0.1%	54	0.02	0
	0.1%	54	0.02	0
	0.1%	52	0.04	0
	0.2%	56	0.03	0
	0.2%	52	0.04	0
	0.2%	56	0.07	0
	0.1%	56	0.07	0
190	0.2%	56	0.06	0

	0.2%	112	0.03	0
	0.7%	108	0.03	0
	0.2%	54	0.03	0
	0.1%	54	0.07	0
	0.1%	54	0.13	0
	0.1%	56	0.02	0
	0.2%	110	0.03	0
	0.1%	52	0.04	0
	0.1%	52	0.02	0
200	0.0%	330	0.26	0
	0.2%	52	0.03	0
	0.2%	52	0.10	0
	0.2%	52	0.14	0
	0.1%	330	0.26	0
	0.2%	170	0.06	0
	0.2%	168	0.08	0
	0.1%	112	0.12	0
	0.1%	112	0.12	0
	0.1%	232	0.11	0
210	0.1%	180	0.14	0
	0.1%	184	0.14	0
	0.2%	254	0.18	0
	0.2%	264	0.27	0
	0.2%	330	0.26	0
	0.1%	360	0.23	0
	0.1%	390	0.24	0
	0.1%	390	0.22	0
	0.1%	396	0.24	0
	0.2%	328	0.24	0
220	0.1%	394	0.27	0
	0.1%	360	0.23	0
	0.2%	396	0.23	0
	0.1%	396	0.24	0
	0.2%	414	0.32	0

	0.2%	424	0.23	0
	0.1%	402	0.31	0
	0.2%	406	0.21	0
	0.2%	394	0.28	0
	0.2%	374	0.24	0
230	0.2%	384	0.23	0
	0.1%	360	0.23	0
	0.2%	364	0.25	0
	0.2%	372	0.25	0
	0.2%	380	0.21	0
	0.1%	372	0.21	0
	0.2%	362	0.20	0
	0.2%	354	0.26	0
	0.2%	384	0.23	0
	0.2%	360	0.24	0
240	0.3%	360	0.20	0
	0.2%	348	0.24	0
	0.2%	290	0.29	0
	0.2%	352	0.34	0
	0.2%	362	0.23	0
	0.2%	198	0.33	0
	0.2%	374	0.23	0
	0.3%	384	0.23	0
	0.3%	394	0.23	0
	0.3%	334	0.34	0
250	0.3%	396	0.25	0
	0.2%	396	0.21	0
	0.3%	396	0.19	0
	0.2%	330	0.28	0
	0.3%	264	0.29	0
	0.1%	264	0.28	0
	0.2%	198	0.33	0
	0.1%	330	0.18	0
	0.3%	396	0.14	0

	0.3%	330	0.26	0
260	0.1%	264	0.18	0
	0.3%	198	0.06	0
	0.3%	330	0.10	0
	0.2%	264	0.33	0
	0.2%	198	0.25	0
	0.2%	396	0.24	0
	0.3%	396	0.28	0
	0.1%	396	0.38	0
	0.2%	396	0.26	0
	0.2%	396	0.21	0
270	0.1%	396	0.20	0
	0.3%	396	0.16	0
	0.2%	330	0.06	0
	0.2%	198	0.17	0
	0.1%	330	0.12	0
	0.2%	264	0.07	0
	0.2%	196	0.16	0
	0.1%	264	0.12	0
	0.3%	198	0.09	0
	0.3%	264	0.06	0
280	0.2%	198	0.12	0
	0.2%	132	0.12	0
	0.1%	198	0.06	0
	0.1%	198	0.08	0
	0.1%	132	0.03	0
	0.2%	132	0.06	0
	0.2%	66	0.14	0
	0.2%	132	0.14	0
	0.2%	198	0.10	0
	0.2%	264	0.11	0
290	0.1%	196	0.07	0
	0.3%	64	0.08	0
	0.3%	198	0.07	0

	0.2%	198	0.18	0
	0.2%	132	0.12	0
	0.1%	264	0.08	0
	0.2%	196	0.07	0
	0.2%	128	0.08	0
	0.2%	128	0.14	0
	0.2%	128	0.11	0
300	0.2%	192	0.10	0

**Tabela 41:** 1000 Objetos Pre-Runtime Box Physics2DSimulate

quadrosTotal	totalPercent	calls	totalTime	gcMemory
	25.7%	6	18.93	1400000
	57.6%	2	89.39	37000000
	31.4%	1	19.94	700000
	17.6%	1	46.36	700000
	81.5%	1	9.27	700000
	81.5%	1	89.39	37000000
	18.7%	1	3.41	700000
	24.6%	1	46.36	700000
10	19.6%	1	2.97	37000000
	75.9%	1	89.39	37000000
	75.9%	1	46.36	700000
	19.6%	1	3.54	37000000
	21.4%	1	89.39	37000000
	22.2%	1	3.19	700000
	22.2%	1	4.49	37000000
	19.6%	1	89.39	700000
	25.6%	1	4.31	700000
	19.6%	1	89.39	37000000
20	19.6%	1	3.68	700000
	25.9%	1	3.08	37000000



	20.9%	1	46.36	700000
	18.0%	1	46.36	700000
	21.0%	1	4.54	700000
	26.0%	1	3.19	700000
	19.6%	1	4.31	700000
	10.0%	1	4.31	700000
	19.6%	1	89.39	700000
	19.6%	1	89.39	700000
30	44.3%	1	3.12	700000
	21.0%	1	4.31	700000
	21.0%	1	3.35	700000
	21.0%	1	3.09	700000
	20.0%	1	3.15	700000
	19.6%	1	3.48	700000
	19.6%	1	4.31	900000
	19.6%	1	4.31	700000
	19.6%	1	4.44	700000
	17.2%	1	4.31	1400000
40	24.1%	1	3.15	900000
	22.6%	1	3.07	700000
	21.0%	1	3.15	900000
	20.4%	1	3.15	700000
	21.0%	1	3.21	900000
	60.9%	1	4.46	700000
	60.9%	1	4.31	900000
	25.8%	1	4.31	700000
	60.9%	1	4.31	900000
	60.9%	1	3.61	900000
50	21.0%	1	4.52	700000
	19.6%	1	3.15	700000
	21.0%	1	3.13	700000
	24.8%	1	4.92	900000
	21.0%	1	3.15	800000
	21.9%	1	4.92	800000

	18.6%	1	4.57	800000
	22.0%	1	4.92	800000
	21.0%	1	3.15	800000
	22.0%	2	4.92	1700000
60	22.0%	1	3.16	900000
	60.9%	1	3.15	1700000
	22.0%	1	3.15	900000
	60.9%	1	4.82	900000
	60.9%	1	3.12	900000
	16.0%	1	3.78	1700000
	38.6%	1	4.45	1000000
	60.9%	1	3.78	1700000
	29.2%	1	3.15	1000000
	19.2%	1	4.92	1700000
70	22.0%	1	3.15	1700000
	22.0%	1	3.78	1000000
	24.9%	1	3.78	1700000
	20.5%	1	4.92	1700000
	20.7%	1	3.26	1000000
	60.9%	1	4.92	1700000
	22.0%	1	4.92	1700000
	22.0%	1	4.51	1100000
	25.1%	1	3.29	1700000
	60.9%	1	3.78	1200000
80	34.7%	1	3.78	1700000
	27.9%	1	3.45	2500000
	22.0%	1	6.20	1200000
	25.7%	1	3.78	1300000
	22.0%	1	3.78	2500000
	28.9%	1	4.92	1200000
	25.5%	1	3.53	1700000
	23.5%	1	4.92	1700000
	28.6%	1	3.82	1700000
	25.7%	1	5.33	1200000

90	23.4%	1	3.53	1700000
	25.7%	1	5.31	1200000
	24.8%	1	4.45	1200000
	24.6%	1	3.60	2500000
	25.7%	1	5.33	1300000
	25.7%	2	3.78	3300000
	25.7%	1	3.78	2500000
	24.8%	1	5.33	1300000
	29.0%	1	5.24	3300000
	25.7%	1	3.68	1400000
100	24.8%	1	5.33	2500000
	28.3%	1	5.27	1500000
	22.7%	1	5.33	1500000
	54.5%	1	5.33	3300000
	25.7%	1	4.01	1500000
	33.1%	1	5.33	1700000
	24.8%	1	5.40	2500000
	23.3%	1	5.39	3300000
	24.8%	1	5.33	1600000
	16.5%	1	3.62	1700000
110	51.4%	1	5.01	1600000
	24.8%	1	5.33	3300000
	24.0%	1	5.54	2500000
	29.8%	1	4.17	1700000
	29.4%	1	5.33	1700000
	27.6%	1	4.25	24500000
	24.8%	1	5.33	1700000
	24.8%	1	4.17	24500000
	29.4%	1	3.96	2500000
	31.1%	1	5.30	1800000
120	25.7%	1	4.15	1800000
	29.3%	2	4.13	3300000
	29.4%	1	5.33	1800000
	29.4%	1	4.17	1800000

	25.7%	2	31.31	24500000
	23.6%	1	31.31	3300000
	29.4%	1	4.31	1800000
	24.2%	1	5.54	53500000
	31.9%	1	7.44	2000000
	24.8%	1	7.44	2000000
130	29.4%	1	6.24	53500000
	31.7%	1	4.88	24500000
	31.0%	1	4.97	31300000
	29.5%	1	31.31	24500000
	30.3%	1	4.58	3300000
	87.6%	1	7.44	2000000
	87.6%	2	31.31	2500000
	24.8%	1	4.48	31300000
	29.4%	1	4.75	4500000
	18.9%	1	31.31	53500000
140	53.4%	2	6.19	2200000
	41.1%	1	7.44	2400000
	34.4%	1	7.44	2400000
	29.4%	1	4.64	31300000
	87.6%	2	18.48	2400000
	31.9%	1	11.85	2500000
	34.4%	1	6.57	2500000
	27.6%	1	31.31	2500000
	87.6%	1	4.96	3300000
	34.8%	1	31.31	2600000
150	90.4%	1	5.06	24500000
	87.6%	1	7.44	53500000
	90.4%	1	18.91	53500000
	29.7%	1	16.07	2600000
	29.4%	2	7.44	24500000
	32.7%	1	31.31	2700000
	29.4%	1	8.26	2800000
	55.6%	1	6.64	31300000

	90.4%	1	7.94	31300000
	57.6%	2	7.44	2900000
160	46.8%	6	7.61	7200000
	40.9%	1	31.31	2900000
	87.6%	1	18.81	3000000
	90.7%	1	24.06	3300000
	35.7%	6	8.12	3300000
	87.6%	1	8.66	3400000
	29.4%	2	7.52	7200000
	90.4%	1	7.44	24500000
	90.7%	1	18.81	7000000
	90.4%	1	8.69	7200000
170	56.9%	1	19.91	7500000
	69.4%	2	18.81	45800000
	47.0%	6	16.32	45800000
	39.3%	1	9.77	7700000
	39.1%	1	8.31	4700000
	90.7%	1	21.11	3900000
	36.6%	2	10.10	3900000
	49.6%	1	25.05	45800000
	87.6%	1	19.51	4000000
	42.0%	1	19.83	4099999.9999999995
180	92.6%	6	10.02	4200000
	41.0%	6	11.45	4600000
	90.4%	6	21.11	8500000
	45.3%	1	10.52	4600000
	40.5%	6	21.11	8800000
	90.7%	1	47.35	4600000
	90.7%	6	10.44	4700000
	90.4%	2	47.35	11100000
	92.6%	1	47.35	11100000
	63.0%	1	31.31	11100000
190	74.2%	1	34.20	4700000
	87.6%	6	23.83	9700000

	45.3%	1	47.64	4800000
	92.6%	6	39.72	4800000
	48.6%	1	53.84	5000000
	45.3%	6	115.87	53500000
	27.0%	2	85.03	53500000
	58.6%	1	99.51	5200000
	57.0%	1	92.16	16100000.000000002
	73.0%	1	101.45	22300000
200	48.6%	1	119.74	17200000
	48.6%	2	115.18	31300000
	57.2%	1	118.29	31300000
	48.6%	6	101.23	24500000
	50.1%	1	115.21	19100000
	72.6%	6	97.90	19600000
	57.0%	2	120.98	28600000
	72.5%	1	115.87	51300000
	58.3%	1	115.87	36300000
	57.0%	6	101.74	42900000
210	75.5%	1	115.32	48000000
	75.5%	6	84.43	53500000
	75.5%	2	104.89	52900000
	86.4%	2	47.35	54500000
	74.2%	2	81.26	54400000
	61.4%	1	109.55	54900000
	60.1%	1	82.47	31300000
	60.2%	6	83.06	54100000
	90.4%	6	104.73	43200000
	73.8%	1	93.64	55300000
220	87.6%	1	47.35	53500000
	90.7%	6	78.49	51300000
	90.7%	2	47.35	51300000
	72.2%	6	83.79	49000000
	86.4%	6	78.97	46000000
	83.3%	6	39.81	45800000

	86.4%	1	102.85	45800000
	83.9%	1	74.14	45000000
	90.0%	1	59.90	45200000
	87.4%	1	63.05	39000000
230	90.4%	1	46.36	45700000
	69.0%	1	87.50	11100000
	73.8%	2	73.45	45800000
	89.5%	1	22.16	45900000
	90.9%	6	89.39	45800000
	74.4%	6	58.67	44400000
	78.3%	1	67.89	43800000
	89.6%	1	46.36	43200000
	92.2%	1	62.57	43200000
	90.7%	3	46.36	42800000
240	81.7%	4	47.38	11100000
	90.0%	3	91.63	11100000
	90.0%	2	46.36	39200000
	89.3%	2	89.39	32400000
	76.0%	4	79.70	39000000
	92.6%	6	94.03	39000000
	82.1%	3	80.40	38600000
	92.6%	6	78.98	38300000
	91.1%	4	55.87	10800000
	75.5%	6	46.36	31300000
250	76.8%	4	22.10	24900000
	82.7%	6	46.31	30700000
	91.4%	5	33.06	37000000
	91.0%	6	39.81	31400000
	90.2%	6	38.60	29900000
	69.9%	6	32.46	23000000
	65.3%	6	32.66	34500000
	80.0%	5	50.73	34600000
	91.1%	6	21.56	35300000
	90.7%	6	39.81	35600000

260	75.5%	6	11.88	10900000
	72.2%	6	41.52	34900000
	75.5%	6	39.81	34200000
	88.8%	6	22.16	28900000
	90.3%	6	47.15	23700000
	65.3%	6	34.10	5400000
	86.7%	6	33.96	23500000
	75.5%	6	22.16	17300000
	78.1%	6	47.35	23000000
	88.7%	6	39.81	21600000
270	90.7%	6	45.24	11400000
	87.4%	6	33.11	17100000
	89.2%	3	39.81	10800000
	75.2%	6	39.81	11200000
	71.8%	6	22.16	5500000
	79.3%	6	32.65	10800000
	75.9%	6	39.56	11200000
	75.9%	6	34.23	16600000.0000000002
	81.5%	6	22.16	16300000
	75.9%	5	39.81	10800000
280	54.1%	6	22.10	16300000
	75.9%	3	23.73	22000000
	90.3%	6	21.68	10800000
	81.5%	6	22.16	11100000
	89.7%	3	22.43	4600000
	81.5%	6	22.16	16800000
	81.5%	5	22.10	10900000
	73.3%	6	22.10	10800000
	65.3%	6	28.20	16600000.0000000002
	74.9%	6	22.10	10800000
290	75.9%	5	22.43	16200000
	77.1%	4	22.16	5400000
	89.1%	4	42.32	10900000
	65.3%	5	32.96	45800000



	81.5%	4	50.73	10700000
	91.2%	5	47.35	10800000
	75.9%	6	50.73	10800000
	65.3%	6		5400000
	87.3%	6		5400000
	65.3%	6		10900000
300	75.9%	6		10900000

## A.2 *RUNTIME*

### A.2.1 UM OBJETO POR SEGUNDO

### A.2.2 DEZ OBJETOS POR SEGUNDO

### A.2.3 CINQUENTA OBJETOS POR SEGUNDO

### A.2.4 CEM OBJETOS POR SEGUNDO

### A.2.5 QUINHENTOS OBJETOS POR SEGUNDO

### A.2.6 MIL OBJETOS POR SEGUNDO

## **APÊNDICE B – TABELAS DE RESULTADOS - *CIRCLE COLLIDER***

### **B.1 *PRE-RUNTIME***

#### **B.1.1 UM OBJETO**

#### **B.1.2 DEZ OBJETOS**

#### **B.1.3 CINQUENTA OBJETOS**

#### **B.1.4 CEM OBJETOS**

#### **B.1.5 QUINHENTOS OBJETOS**

#### **B.1.6 MIL OBJETOS**

### **B.2 *RUNTIME***

#### **B.2.1 UM OBJETO POR SEGUNDO**

#### **B.2.2 DEZ OBJETOS POR SEGUNDO**

#### **B.2.3 CINQUENTA OBJETOS POR SEGUNDO**

#### **B.2.4 CEM OBJETOS POR SEGUNDO**

#### **B.2.5 QUINHENTOS OBJETOS POR SEGUNDO**

#### **B.2.6 MIL OBJETOS POR SEGUNDO**

## **APÊNDICE C – TABELAS DE RESULTADOS - *EDGE COLLIDER***

### **C.1 *PRE-RUNTIME***

#### **C.1.1 UM OBJETO**

#### **C.1.2 DEZ OBJETOS**

#### **C.1.3 CINQUENTA OBJETOS**

#### **C.1.4 CEM OBJETOS**

#### **C.1.5 QUINHENTOS OBJETOS**

#### **C.1.6 MIL OBJETOS**

### **C.2 *RUNTIME***

#### **C.2.1 UM OBJETO POR SEGUNDO**

#### **C.2.2 DEZ OBJETOS POR SEGUNDO**

#### **C.2.3 CINQUENTA OBJETOS POR SEGUNDO**

#### **C.2.4 CEM OBJETOS POR SEGUNDO**

#### **C.2.5 QUINHENTOS OBJETOS POR SEGUNDO**

#### **C.2.6 MIL OBJETOS POR SEGUNDO**

## **APÊNDICE D – TABELAS DE RESULTADOS - *POLYGON COLLIDER***

### **D.1 *PRE-RUNTIME***

#### **D.1.1 UM OBJETO**

#### **D.1.2 DEZ OBJETOS**

#### **D.1.3 CINQUENTA OBJETOS**

#### **D.1.4 CEM OBJETOS**

#### **D.1.5 QUINHENTOS OBJETOS**

#### **D.1.6 MIL OBJETOS**

### **D.2 *RUNTIME***

#### **D.2.1 UM OBJETO POR SEGUNDO**

#### **D.2.2 DEZ OBJETOS POR SEGUNDO**

#### **D.2.3 CINQUENTA OBJETOS POR SEGUNDO**

#### **D.2.4 CEM OBJETOS POR SEGUNDO**

#### **D.2.5 QUINHENTOS OBJETOS POR SEGUNDO**

#### **D.2.6 MIL OBJETOS POR SEGUNDO**