

Test report

Product name	: Cash Cubes (HTML5-Mobile-Tablet)
Jurisdiction	: Malta
Applicant	: Virtue Fusion Ltd
Test institute	: Trisigma B.V.
Type of product	: Slot game

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Quality Manager



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1. TEST INSTITUTE

Trisigma B.V. (here after Trisigma) provides compliance and type approval services to the gaming industry and authorities. The Trisigma test labs are located in The Netherlands and have extensive facilities for testing and approval of online and land based gaming systems. Trisigma has been accredited by the Dutch Council of Accreditation for both standards ISO/IEC 17020 (with identification I254) and ISO/IEC 17025 (with identification L531) within the scope of compliance testing and examination of gaming systems. It is Trisigma's policy to carry out all activities according to these high quality standards in order to assure the international recognition of Trisigma certifications, reports and declarations.

This report presents the Trisigma final conclusion of compliance, the scope of examination, the specific identification of the gaming system and an overview of the applicable requirements including the appraisal with regard to the gaming system under examination.

This report has been constructed under the supervision and responsibility of Trisigma's Quality Manager. Every effort has been made to ensure the quality and accuracy of the information contained in this report. If errors or omissions are discovered, please contact us with details. Trisigma B.V. reserves the right to issue revisions of this test report if additional information is presented or discovered.

2. TEST METHODS

Trisigma examines gaming systems using accredited and recognized assessment methods. These methods cover all applicable components and characteristics of the product under examination.

Qualified test engineers carry out a comprehensive compilation of test methods using documentation review, measurements, evaluation of calculations and simulations, statistical tests, functional tests, visual assessment and source code analyses and supervised builds in order to examine the product from a requirements point of view. These test methods comprises the functional and statistical behavior of the gaming system.

3. GENERAL REPORT DATA

Report number	3s.17.115_MT.R0
Jurisdiction	Malta
Requirements	Remote Gaming Regulations Subsidiary Legislation 438.04
Additional regulations or directions	Return to Player Directive 2016 Form MGA/51/2011-13
Test period	November 2016
Project Engineer	S. Schoonderbeek
Revision information	-
References	3s.15.597_UK.R0 Report RNG

4. APPLICANT DATA

Company name	Virtue Fusion Ltd
Address	10 Jamestown Road NW1 7BY LONDON UNITED KINGDOM
Contact	Mr G. Flinders

5. CONCLUSION AND RECOMMENDATION

The game complies with the Malta Remote Gaming Regulations.

It is the recommendation of Trisigma that the game be approved for use in the jurisdiction of Malta.

This was a game only compliance test. Platform and RNG have been separately tested.

The game has been assessed on the English language version.

6. GAME INFORMATION

Type of game	Slot game
Game rules	Cash Cubes is 5-reel, 3-row video slot game with 20 win lines.
Jackpot	No
Game software identification	16.5.0
Minimum bet	£ 0.01
Maximum bet	£ 100.00
Target percentage RTP	95.52%
Maximum autoplay games	100

7. PLATFORM AND TEST EQUIPMENT INFORMATION

Platform information:

Supplier	Virtue Fusion Ltd
Version	16.5.0

The game was tested with the following equipment:

Device	OS	Browser
Samsung Galaxy S4	Android (version 5.0.1)	Android
Apple iPhone 6 Plus	iOS (version 10.1.1)	Safari
Samsung Galaxy Tab S2	Android (version 6.0.1)	Android
Apple iPad Air 2	iOS (version 10.1.1)	Safari

8. REQUIREMENTS – TEST RESULTS OVERVIEW

Requirements within this scope are included in this test results overview. Where requirements are applicable to either game or platform these requirements are included in this test result overview, and are marked 'Not Applicable' when compliance is determined only by the platform.

Test results overview		
Article	Requirement Text	Verdict
2. Definitions	<p>In these regulations, unless the context otherwise requires:</p> <p>"remote betting" means the negotiation or receiving of any bet by a means of distance communications;</p> <p>"remote gaming" means any form of gaming by means of distance communications;</p> <p>"remote gaming equipment" means a machine or other device whether electronic, electrical or mechanical, computer software, or any other mechanism, device or item, used or suitable for use, in the operation of an authorised game and which is situated in Malta;</p> <p>Remarks/Findings: This is a definition only.</p>	
25. Conformity of gaming system	<p>An applicant for a licence or a licensee shall, in respect of a new gaming system, and before any such system becomes operational, provide adequate certification that may be required by the Authority:</p> <p>Provided that the certification must show that gaming system has been found within the previous six months to comply with each and all the technical specifications laid down in the Third Schedule.</p> <p>Remarks/Findings: This is an explanatory text only.</p>	
44. Display of counters (1)	<p>Where the game is displayed on a screen the licensee shall cause to be displayed on the screen, at all times during the game, a counter which automatically updates and shows the player's account balance.</p> <p>Remarks/Findings: The required information is presented correctly.</p>	PASS
44. Display of counters (2) (a)	<p>The licensee shall also make available to every player an automatic reality check at intervals of one hour.</p> <p>Remarks/Findings: This is a game only test report. Platform functions have not been tested.</p>	Not Applicable
44. Display of counters (2) (b)	<p>The automatic reality check shall:</p> <p>Remarks/Findings: This is a game only test report. Platform functions have not been tested.</p>	Not Applicable
44. Display of counters (2) (b) (i)	<p>suspend play;</p> <p>Remarks/Findings: This is a game only test report. Platform functions have not been tested.</p>	Not Applicable
44. Display of counters (2) (b) (ii)	<p>clearly indicate for how long the player has been playing;</p> <p>Remarks/Findings: This is a game only test report. Platform functions have not been tested.</p>	Not Applicable

44. Display of counters (2) (b) (iii)	display the player's winnings and losses during such period of time;	Not Applicable
	Remarks/Findings: This is a game only test report. Platform functions have not been tested.	
44. Display of counters (2) (b) (iv)	require the player to confirm that the player has read the message;	Not Applicable
	Remarks/Findings: This is a game only test report. Platform functions have not been tested.	
44. Display of counters (2) (b) (v)	give an option to the player to end the session or return to the game.	Not Applicable
	Remarks/Findings: This is a game only test report. Platform functions have not been tested.	
45. Indication of currency	All amounts displayed relating to wagers and winnings shall be quoted with the symbol of currency that the player is playing with.	PASS
	Remarks/Findings: The required information is presented correctly.	
46. Full screen games restriction	Without prejudice to anything contained in regulation 45, full screen games cannot be offered to players unless a real time clock is displayed on the screen at all times and players are given the facility to exit the game.	PASS
	Remarks/Findings: Where the gaming system uses full screen client applications, the time of day is displayed on the game screen at all times and the player is able to exit the game.	
46A. RTP restriction	(1) A licensee offering games using repetitively generated random selection for determining winning combinations to players shall ensure that, in accordance with the way in which the game is designed, the licensee shall pay out on average a prize amounting to ninety two per centum (92%) or more of the money or money's worth wagered, or any such higher percentage as may be stipulated through a condition of the licence. (2) The Authority may issue a directive regulating the manner in which licensees are required to report, certify or comply with the requirements established in this regulation, and, or exempt types or categories of games from the requirements of this regulation: Provided that for the purposes of calculating and ensuring compliance with the percentage referred to in sub-regulation (1), a licensee shall take into consideration the transactions occurring from the 1st of January 2015 onwards.	PASS
	Remarks/Findings: Research demonstrates that the game shall pay out on average a prize above 92% of the money's worth wagered.	
1. Technical requirement for gaming system	The gaming system must:	
	Remarks/Findings: This is an explanatory text only.	
1. Technical requirement for gaming system (a)	faithfully follow the game rules published by the operator; and	PASS
	Remarks/Findings: The game tested operates under one fixed set of rules. The game's rules and RTP are not configurable by the Player or via the Admin System.	
1. Technical requirement for gaming system (b)	provide over time no more than the expected house advantage to the operator.	PASS
	Remarks/Findings: The expected house advantage is validated by use of simulation.	

2. Technical requirement for gaming system	Both the gaming and financial transactions must be congruent and secure.	Not Applicable
	Remarks/Findings: This is a game only test report. Platform functions have not been tested.	
3. Technical requirement for gaming system	The gaming system must satisfy the following criteria for randomness, following Schneier:	
	Remarks/Findings: This is an explanatory text only.	
3. Technical requirement for gaming system (a)	the data must be randomly generated, passing appropriate statistical tests of randomness;	PASS
	Remarks/Findings: Research demonstrates that events of chance are statistically random.	
3. Technical requirement for gaming system (b)	the data must be unpredictable, i.e. it must be computationally infeasible to predict what the next number will be, given complete knowledge of the algorithm or hardware generating the sequence, and all previously generated numbers;	Not Applicable
	Remarks/Findings: This is a game only test report. RNG has not been tested.	
3. Technical requirement for gaming system (c)	the series cannot be reliably reproduced, i.e. if the sequence generator is activated again with the same input (as exactly as is reasonably possible) it will produce two completely unrelated random sequences.	Not Applicable
	Remarks/Findings: This is a game only test report. RNG has not been tested.	
4. Technical requirement for gaming system	The outcome of any game event, and the return to the player, must be independent of the CPU, memory, disk or other components used in the playing device used by the player.	PASS
	Remarks/Findings: The game outcome is independent of the equipment of the participant.	
5. Technical requirement for gaming system	The game or any game event outcome must not be affected by the effective bandwidth, link utilisation, bit err or rate or other characteristic of the communication channel between the gaming system and the playing device used by the player.	PASS
	Remarks/Findings: The game outcome is determined at server side and is independent of communication characteristics or end user device.	
6. Technical requirement for gaming system	The gaming system must be able to display for each game the following information on the current page or on a page directly accessible from the current page via a hyperlink:	
	Remarks/Findings: This is an explanatory text only.	
6. Technical requirement for gaming system (a)	the name of the game;	PASS
	Remarks/Findings: The required information is displayed on the artwork.	
6. Technical requirement for gaming system (b)	restrictions on play;	PASS
	Remarks/Findings: The required information is displayed in the game information.	

6. Technical requirement for gaming system (c)	instructions on how to play, including a pay-table for all prizes and special features;	PASS
	Remarks/Findings: The required information is displayed in the game information.	
6. Technical requirement for gaming system (d)	the player's current account balance;	PASS
	Remarks/Findings: The required information is displayed on the artwork.	
6. Technical requirement for gaming system (e)	unit and total bets permitted;	PASS
	Remarks/Findings: The required information is displayed on the artwork.	
6. Technical requirement for gaming system (f)	the rules of the game.	PASS
	Remarks/Findings: The required information is displayed in the game information.	
6. Technical requirement for gaming system (g)	information relating to the average winnings paid out to players of the game over a period of time or a particular number of plays.	PASS
	Remarks/Findings: The required information is displayed in the game information.	

APPENDIX A: Game rules

Cash Cubes Slot

Cash Cubes Exploding Reels Slot

Cash Cubes Slot is a five reel, twenty-line slot with an Exploding Reels feature.

Cash Cubes Slot Exploding Reels Feature

All symbol combinations defined in the pay table will trigger the Exploding Reels feature during game play. All winning symbol combinations are evaluated and values are displayed in the 'Won' field.

All winning symbols in the combination disappear. All symbol positions on each reel are filled as symbols tumble from above, in sequence, to fill the empty spaces. The game screen is re-evaluated for symbols in winning combinations and values are displayed in the 'Won' field. At the point when no winning symbol combinations are created and all wins are accumulated, winnings are credited to the user's account balance.

The Exploding Reels feature remains active until no winning symbol combinations are created.

Cash Cubes Slot Pay Table

Winnings paid out on the Cash Cubes Slot are dependent on the symbols displayed on the line once the reels have come to a stop. 2, 3, 4 or 5 matched symbols pay the following multiples of the stake amount:

Symbol	Payout			
	2 matching symbols	3 matching symbols	4 matching symbols	5 matching symbols
Jack	x0	x20	x25	x30
Queen	x0	x25	x30	x40



Game Help

Balance: £398.00 Bet: 20 x £0.10 = £2.00 Win: 09:15

Cash Cubes Slot Pay Table

Winnings paid out on the Cash Cubes Slot are dependent on the symbols displayed on the line once the reels have come to a stop. 2, 3, 4 or 5 matched symbols pay the following multiples of the stake amount:

Symbol	Payout			
	2 matching symbols	3 matching symbols	4 matching symbols	5 matching symbols
Jack	x0	x20	x25	x30
Queen	x0	x25	x30	x40
King	x0	x30	x40	x50
Ace	x0	x35	x55	x75
Orange Cube	x0	x40	x60	x125
Green Cube	x0	x50	x75	x200
Purple Cube	x0	x60	x100	x750
Red Cube	x20	x75	x150	x1000
Four Cubes	x25	x100	x200	x2500
Cash Cubes	x35	x150	x250	x5000

Game Rules

The following game rules apply:

- You can bet up to £5.00 per line creating a total maximum bet of £100 per spin.
- The minimum bet is £0.01



Game Help

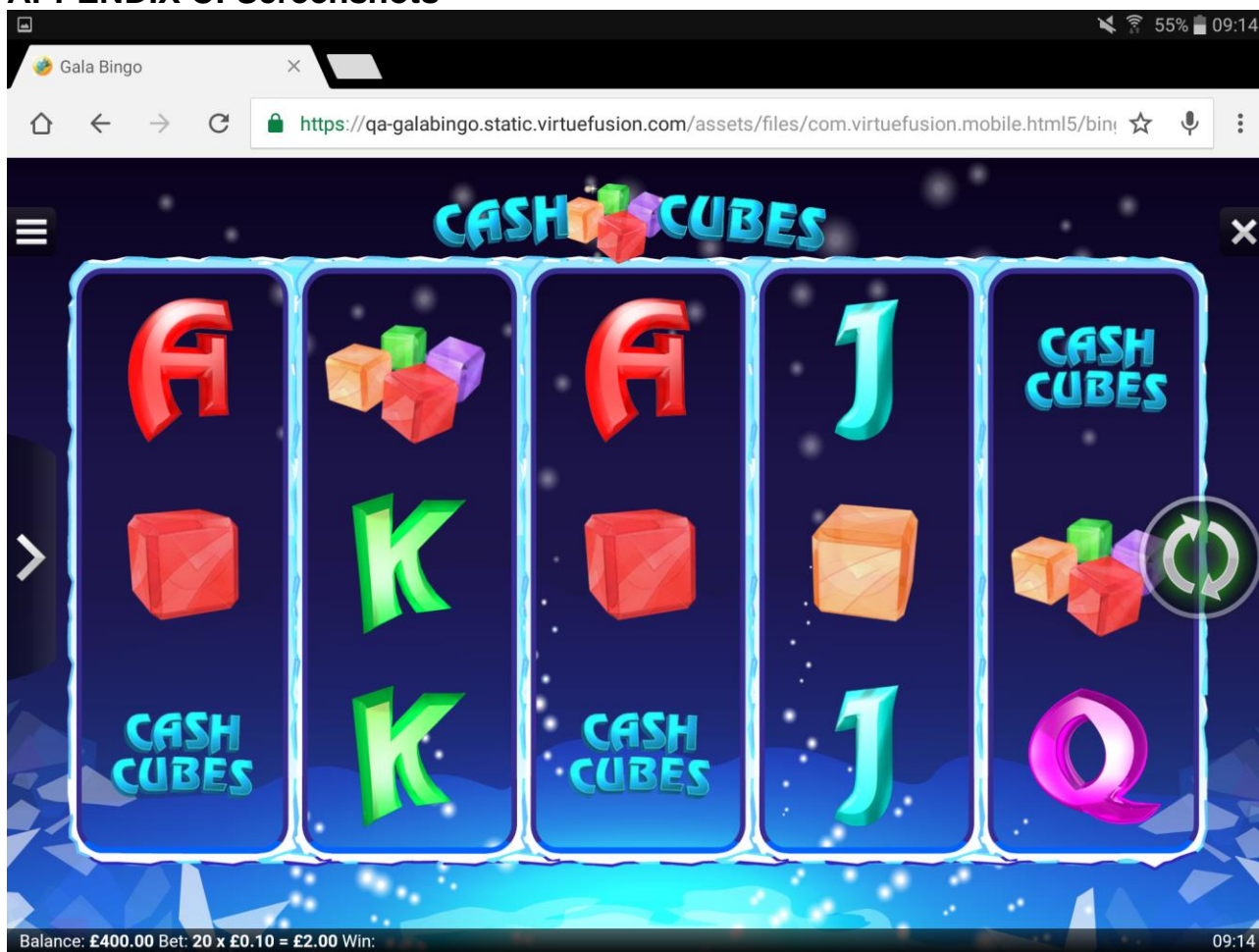
Balance: £398.00 Bet: 20 x £0.10 = £2.00 Win:

09:15

APPENDIX B: Game software identification

File name	SHA1
less-master.css	5dabbd74c94bee20bccc9cefd1378f84a7f17996
sprite-x1.json	8f067f2827f746561db254f874bffb6eef7ce7e9
sprite-x1.png	beba6424f6d133f9c7fad7ee119cb8fc028340aa
backgrounds-x1.json	05b7f5ea3d7fd6cf927484a546180b6d524631af
backgrounds-x1.png	5114361abaa6d47bfb6547a6c09f04f5e3d9081a
lines-x1.json	b1c34f00a3eaf0328718cec77addd44cb3e78486
lines-x1.png	2f83c8ce25fd0da348b1a05ffe9aa4110f0aece9
casinofruitmachine-16.5.0-0-SNAPSHOT.jar	15d097d256ccbbda8ddd81a71f6a974905ddf17f

APPENDIX C: Screenshots



Gala Bingo

https://qa-galabingo.static.virtuefusion.com/assets/files/com.virtuefusion.mobile.html5/bin/

Return To Player

The RTP for this game is 95.52%

Paytable

Symbol	5	4	3	2
CASH CUBES	x5,000	x250	x150	x35
5 Cubes	x2,500	x200	x100	x25
4 Cubes	x1,000	x150	x75	x20
3 Cubes	x750	x100	x60	
2 Cubes	x200	x75	x50	
1 Cube	x125	x60	x40	
A	x75	x55	x35	
K	x50	x40	x30	
Q	x40	x30	x25	
J	x30	x25	x20	

ALL WINS PAY FROM LEFT TO RIGHT
All win amounts for matching symbols displayed in the paytable are multiplied by the stake placed per line.
Any winning combination of matched symbols must start from reel 1 through to reel 5 in consecutive order.

Features

Winning Lines

Info

Balance: £398.00 Bet: 20 x £0.10 = £2.00 Win:

09:14

Gala Bingo

<https://qa-galabingo.static.virtuefusion.com/assets/files/com.virtuefusion.mobile.html5/bin/>

4. x40
3. x30

4. x30
3. x25

4. x25
3. x20

ALL WINS PAY FROM LEFT TO RIGHT
All win amounts for matching symbols displayed in the payable are multiplied by the stake placed per line.
Any winning combination of matched symbols must start from reel 1 through to reel 5 in consecutive order.

Features

All winning symbol combinations will trigger the Exploding Reels feature. The combinations are evaluated and will then explode and disappear. All empty symbol positions on each reel are filled as symbols tumble from above, in sequence, to fill all empty spaces. The game screen is then re-evaluated for symbols in winning combinations. The Exploding Reels feature remains active until no winning symbol combinations are created.

Winning Lines

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	

Malfunction

In the case of any malfunction, all bets and winnings are null and void.

Info

Balance: £398.00 Bet: 20 x £0.10 = £2.00 Win:

09:15

55% 09:16

Gala Bingo

<https://qa-galabingo.static.virtuefusion.com/assets/files/com.virtuefusion.mobile.html5/bin/>

RESPONSIBLE GAMING - AUTOPLAY

NUMBER OF AUTO PLAYS: £0.40 PER PLAY

5 25 50 75 100

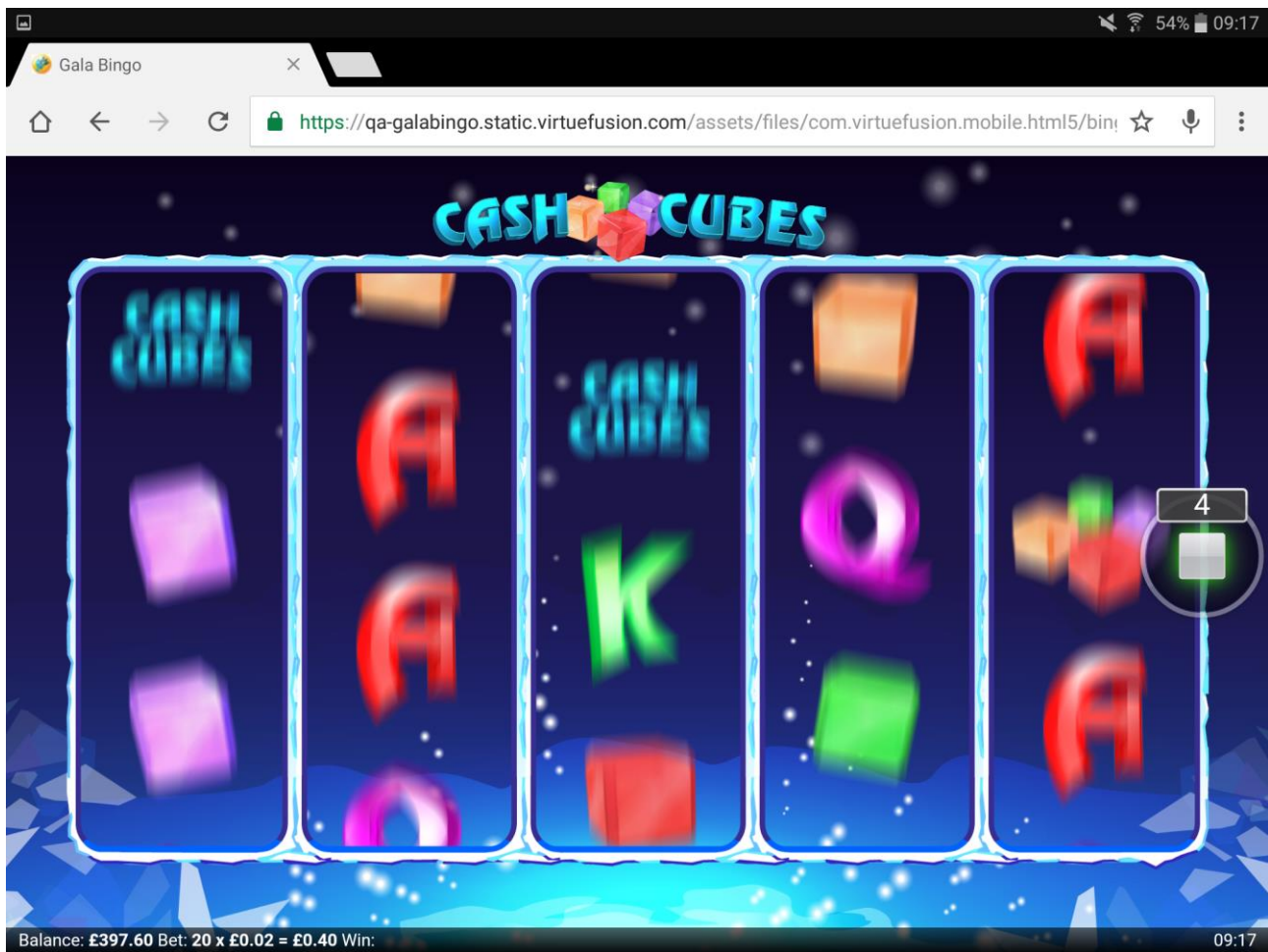
STOP ON LOSS OF

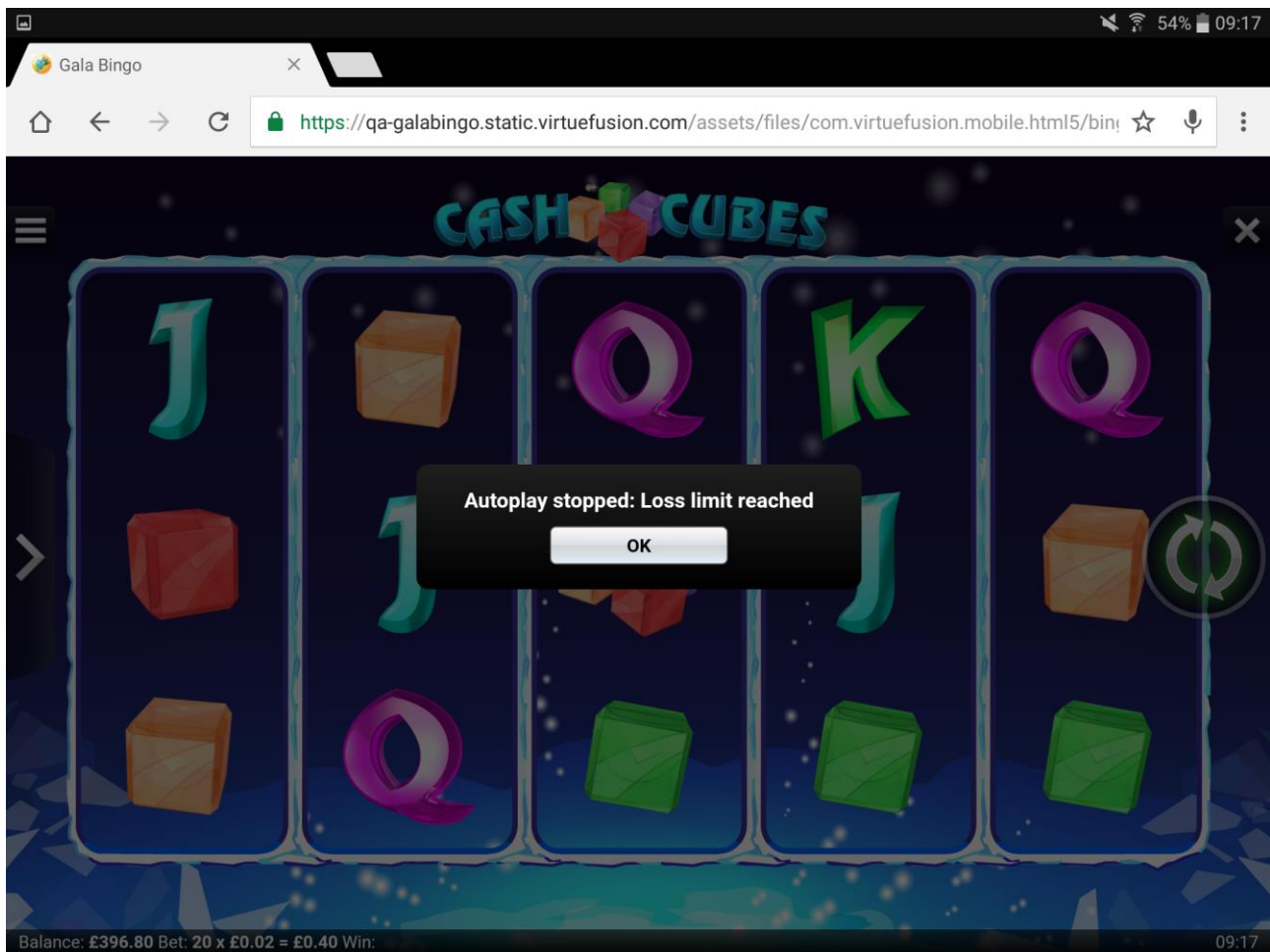
£0.40 £0.80 £1.20 £1.60 £2.00

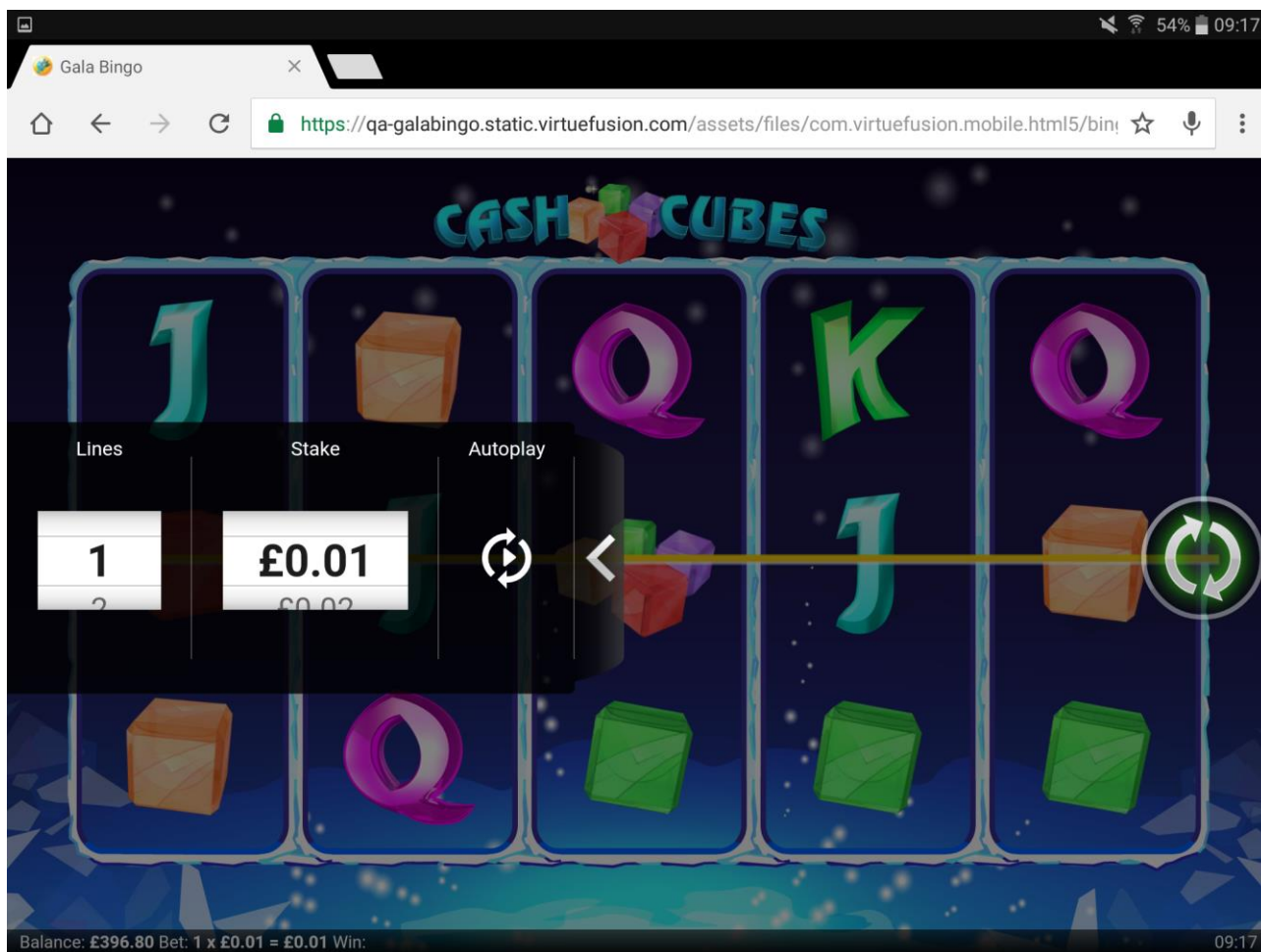
STOP ON WIN OF

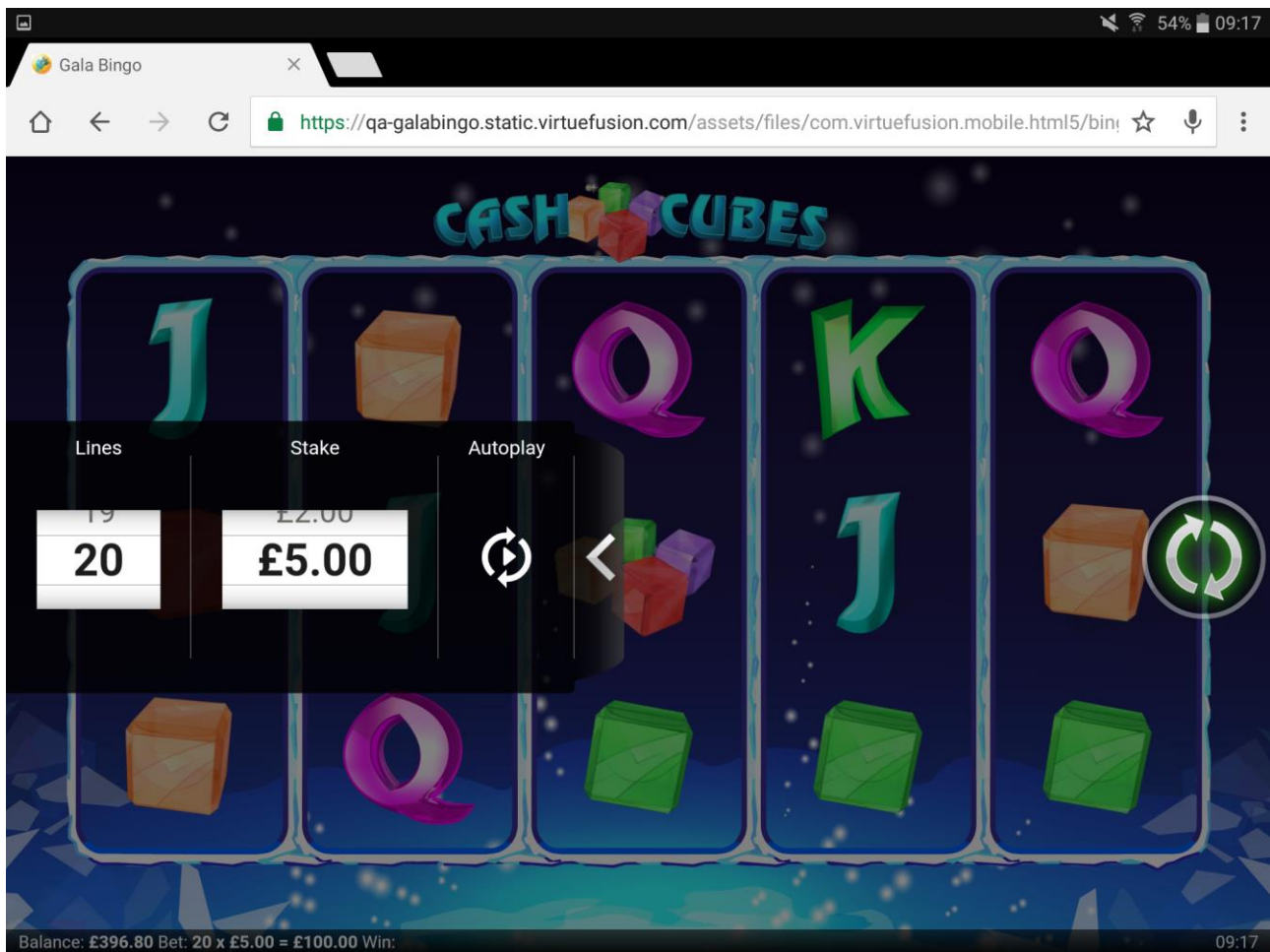
ANY £0.40 £4.00 £40.00 NEVER

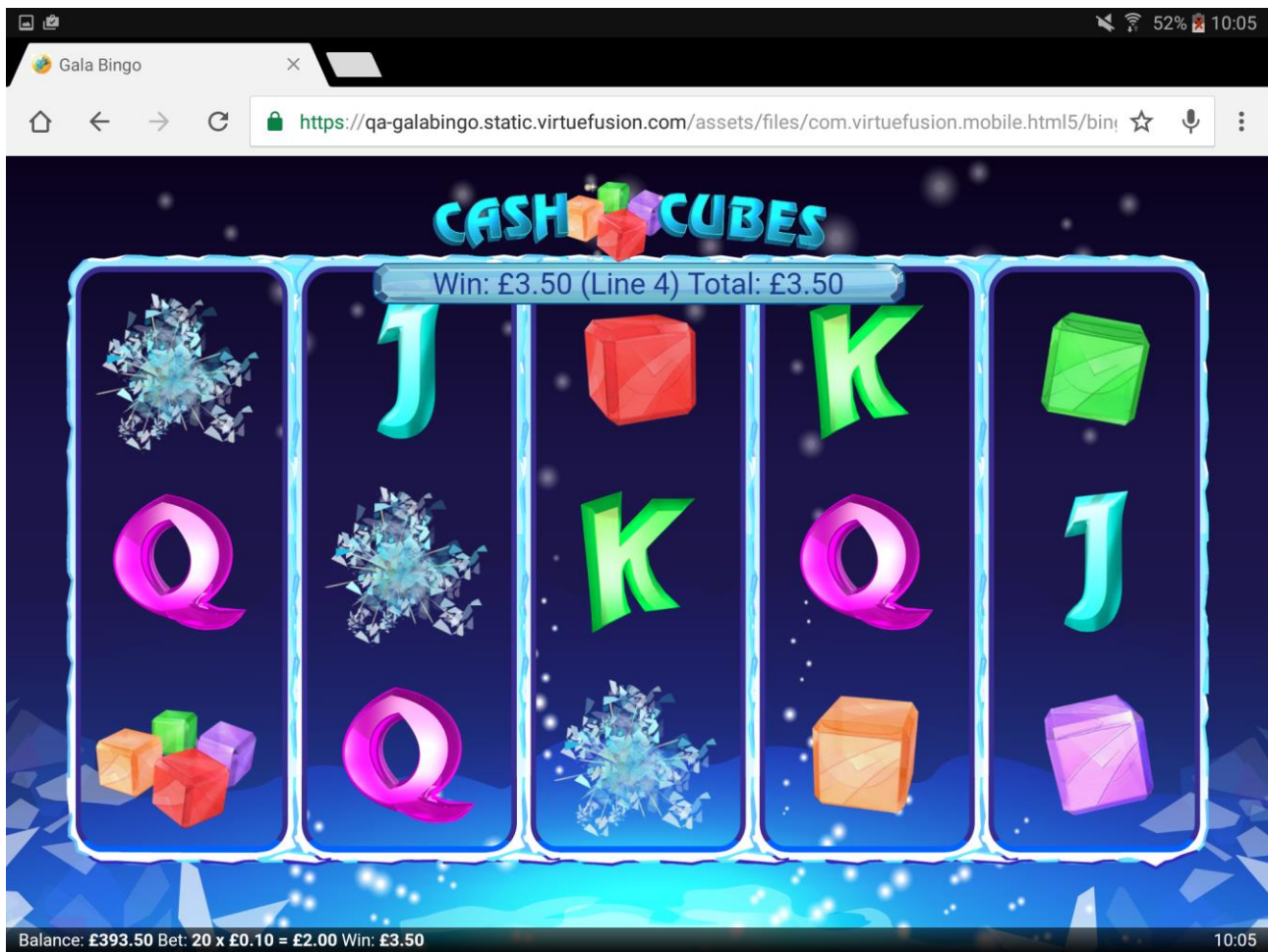
EXIT CONFIRM

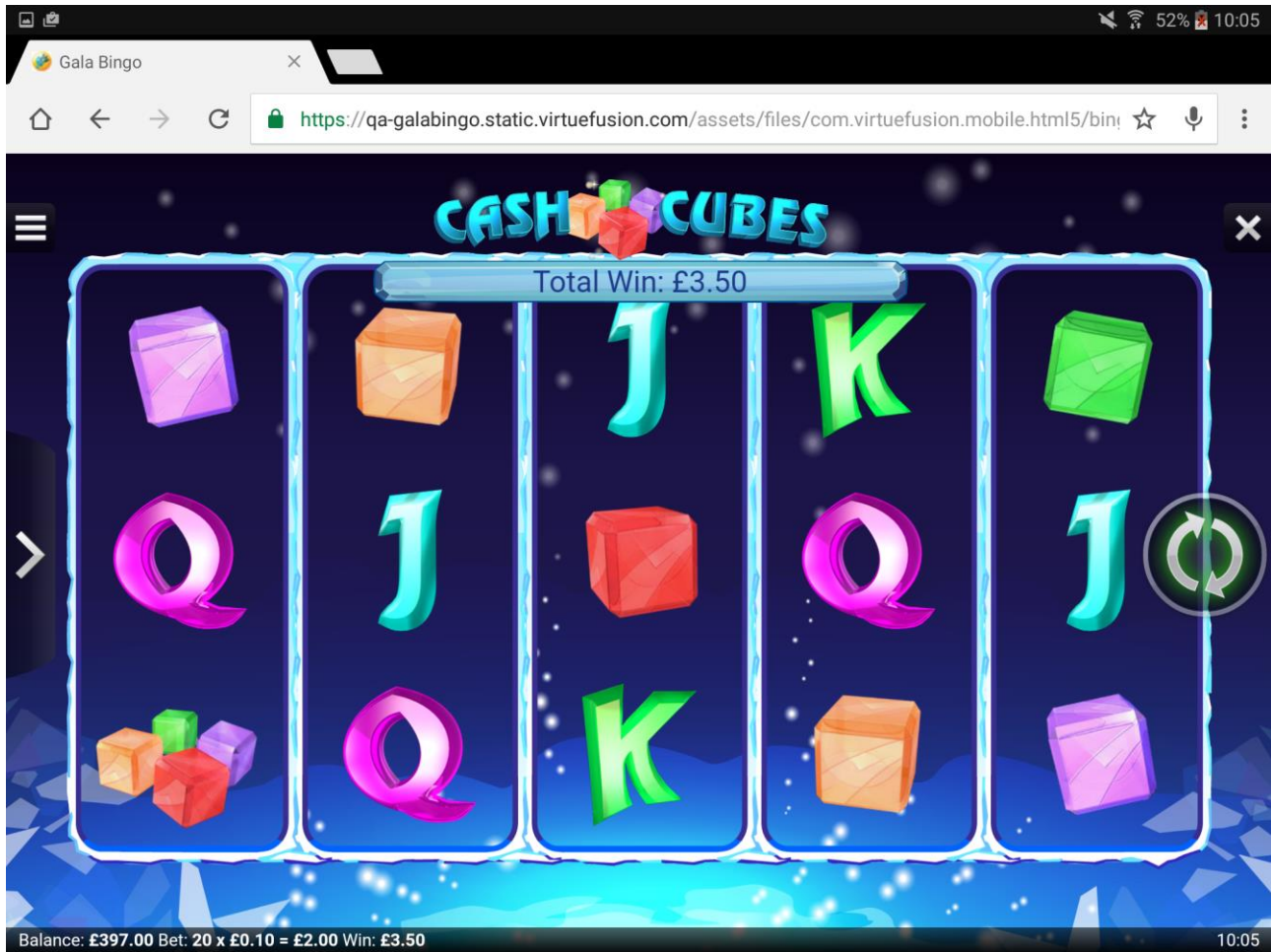












APPENDIX D: Reels

Reel Set	Outcome	Reel 0	Reel 1	Reel 2	Reel 3	Reel 4
0	King		Ace	Jack	Cash Cubes	Cash Cubes
1	Purple Cube		Jack	Purple Cube	Purple Cube	Ace
2	Jack		Purple Cube	Orange Cube	Queen	Queen
3	Red Cube		Queen	Queen	King	King
4	Green Cube		Green Cube	Red Cube	Ace	Orange Cube
5	Queen		King	King	Queen	Jack
6	Orange Cube		Ace	Queen	Jack	Green Cube
7	Ace		Orange Cube	Ace	Orange Cube	King
8	Purple Cube		Purple Cube	Green Cube	Queen	Ace
9	Jack		Jack	Purple Cube	Green Cube	Queen
10	Green Cube		Four Cubes	Jack	Jack	Jack
11	Queen		Queen	Green Cube	King	Four Cubes
12	Four Cubes		Red Cube	Purple Cube	Ace	Ace
13	King		King	Queen	Queen	Jack
14	Purple Cube		Green Cube	King	Jack	Purple Cube
15	Queen		Ace	Ace	Four Cubes	Queen
16	King		King	Queen	King	Green Cube
17	Orange Cube		Cash Cubes	Jack	Jack	King
18	Jack		Jack	Cash Cubes	Green Cube	Jack
19	Cash Cubes		Green Cube	King	Queen	Purple Cube
20	Queen		Queen	Green Cube	Purple Cube	Queen
21	Ace		Purple Cube	Orange Cube	Jack	Red Cube
22	Green Cube		Jack	Jack	Red Cube	Jack
23	King		Orange Cube	Green Cube	Ace	Ace
24	Ace		King	Four Cubes	Jack	Queen
25	Queen		Ace	Queen	Orange Cube	Orange Cube
26	Jack		Queen	Orange Cube	Ace	Jack
27	Purple Cube		Jack	Ace	King	King
28	Red Cube		Four Cubes	King	Purple Cube	Green Cube
29	Jack		King	Red Cube	Red Cube	Purple Cube
30	Four Cubes		Red Cube	Jack	Queen	Queen
31	Queen		Jack	Ace	Green Cube	Jack
32	Ace		Purple Cube	Purple Cube	Ace	
33	Orange Cube		Green Cube	Queen	King	
34	King		Queen	Jack	Purple Cube	
35	Green Cube		Orange Cube	King	Jack	
36	Jack		King	Ace	Green Cube	
37	Purple Cube		Ace	Queen	Queen	
38	King		Queen			
39	Ace		Jack			
40	Queen		Purple Cube			
41	Jack		Queen			