

Test report

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

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Authorised by: Ing. R. Hubregtse 25-11-2016
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.17.113_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	D. van der Wal
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	Clover Rollover is a 5-reel, 3-row video slot game with 5 win lines.
Jackpot	Yes
Game software identification	16.5.0
Minimum bet	£ 0.10
Maximum bet	£ 25.00
Target percentage RTP	93%
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.	Not Applicable
	Remarks/Findings: The gaming system does not use full screen client applications.	
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

Clover Rollover Progressive Slot

Clover Rollover is a five reel, five-line slot with a progressive jackpot.

Progressive Jackpot Feature

To qualify for the full progressive jackpot amount, you must stake max bet (£5) on any one line or more to be eligible to win. If you place a stake amount below £5 on any line you qualify for a percentage of the full progressive jackpot amount. If five Lucky Shamrock symbols line up on any enabled line, you will win the following proportion of the progressive jackpot based on stake:

- £0.10 2%
- £0.20 4%
- £0.30 6%
- £0.50 10%
- £0.75 15%
- £1.00 20%
- £1.50 30%

←
Game Help

Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win:
14:13

- £2.00 40%
- £3.00 60%
- £4.00 80%
- £5.00 100%

The current value of the progressive jackpot is displayed in the game. If you are lucky enough to be a confirmed winner of the progressive jackpot, you will be contacted to arrange the crediting of winnings to your account. The jackpot will be reduced by the amount you have won. The jackpot will be reset when the full progressive jackpot is won. In the event the Progressive Jackpot is won before the Jackpot amount can be reset, the player who wins the amount will not be eligible for the value shown; they will only be eligible for the re-seed amount specific to the game.

Game Rules

The following game rules apply:

←
Game Help

Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win:
14:13

- You can bet up to £5.00 per line creating a total maximum bet of £25 per spin.
- The minimum bet is £0.10
- For a combination of regular symbols to produce a winning combination, the symbols must be next to each other anywhere on an enabled line
- Winnings are paid out on the highest combination on each enabled line only
- The jackpot on this game is funded by contributions from the networked operators not game stakes. On rare occasions we may vary how this jackpot is seeded or won, any updates will be reflected in these rules immediately.
- From time to time we may remove funds from the Jackpot in order to run promotions. Terms and Conditions relating to these promotions will be clearly displayed on our website throughout the promotional period.
- The jackpot will not be reset until the win is validated
- Progressive jackpots on slots games cannot have multiple winners
- Autoplay functionality is available for Clover Rollover, where the game will play out until triggered to stop via; a spin limit, wins of a set amount or losses of a set amount
- We reserve the right to amend these game rules at any time.



Game Help

Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win:

14:13

- From time to time we may remove funds from the Jackpot in order to run promotions. Terms and Conditions relating to these promotions will be clearly displayed on our website throughout the promotional period.
- The jackpot will not be reset until the win is validated
- Progressive jackpots on slots games cannot have multiple winners
- Autoplay functionality is available for Clover Rollover, where the game will play out until triggered to stop via; a spin limit, wins of a set amount or losses of a set amount
- We reserve the right to amend these game rules at any time.

The RTP for Clover Rollover is 93% (based on a game with the maximum number of lines selected).

Malfunction

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

Game Version 16.5.0, 29/11/2016



Game Help

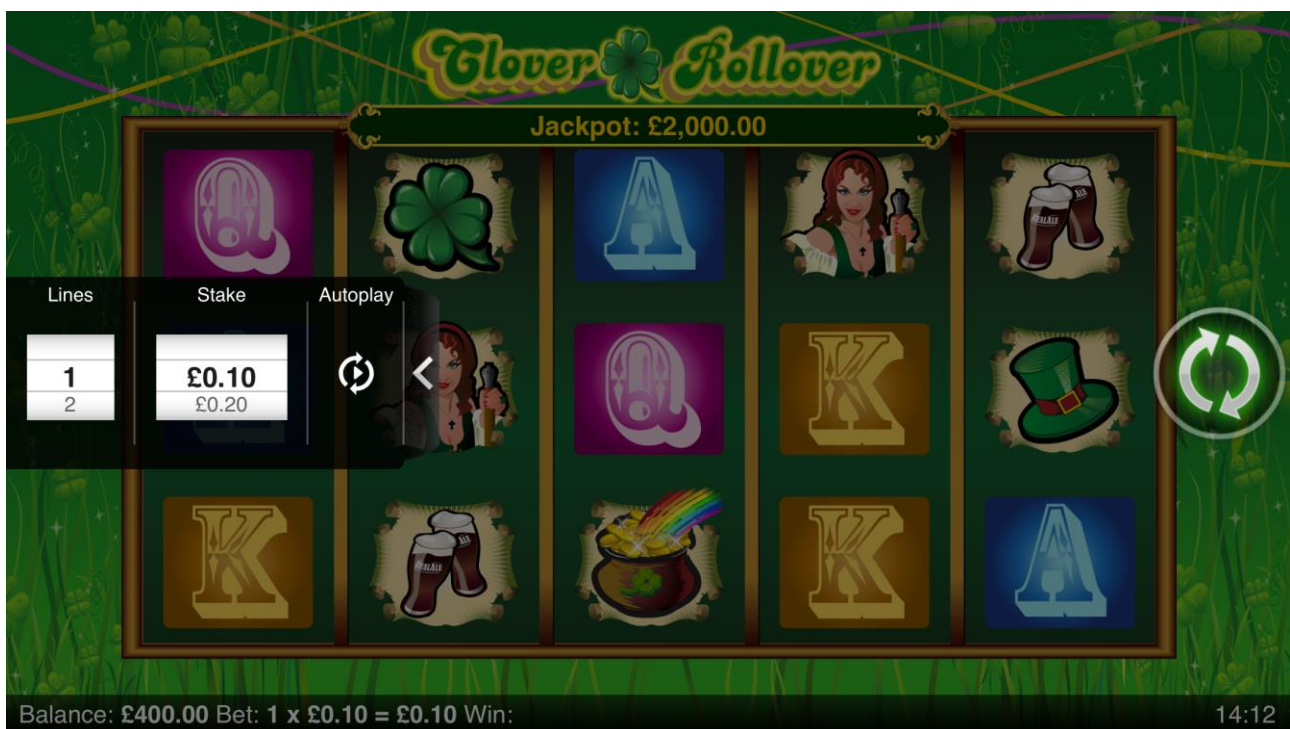
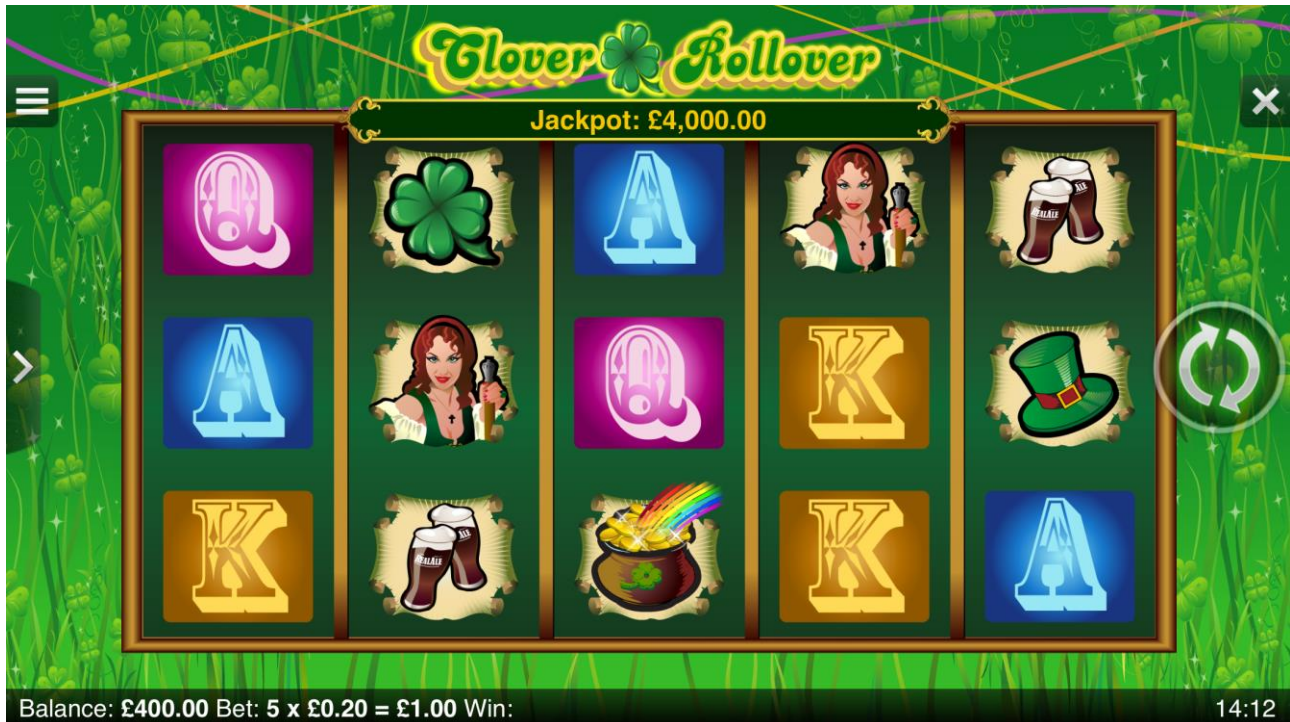
Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win:

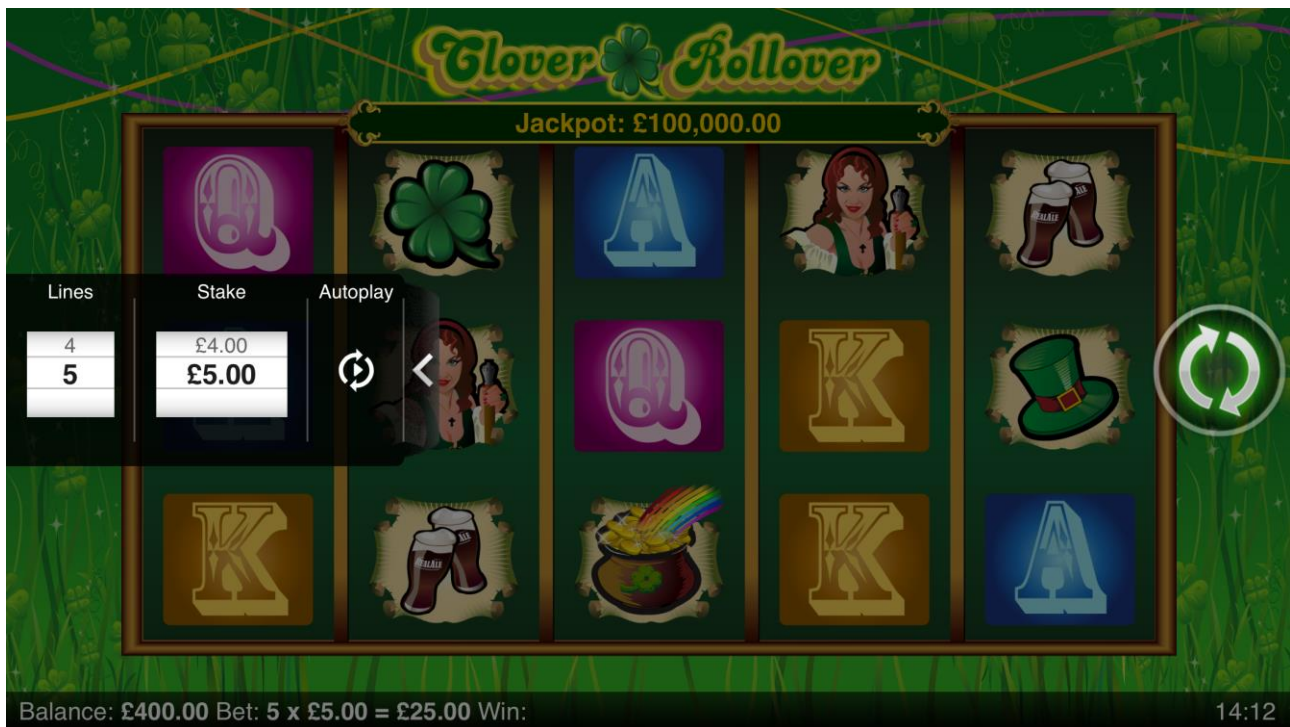
14:13

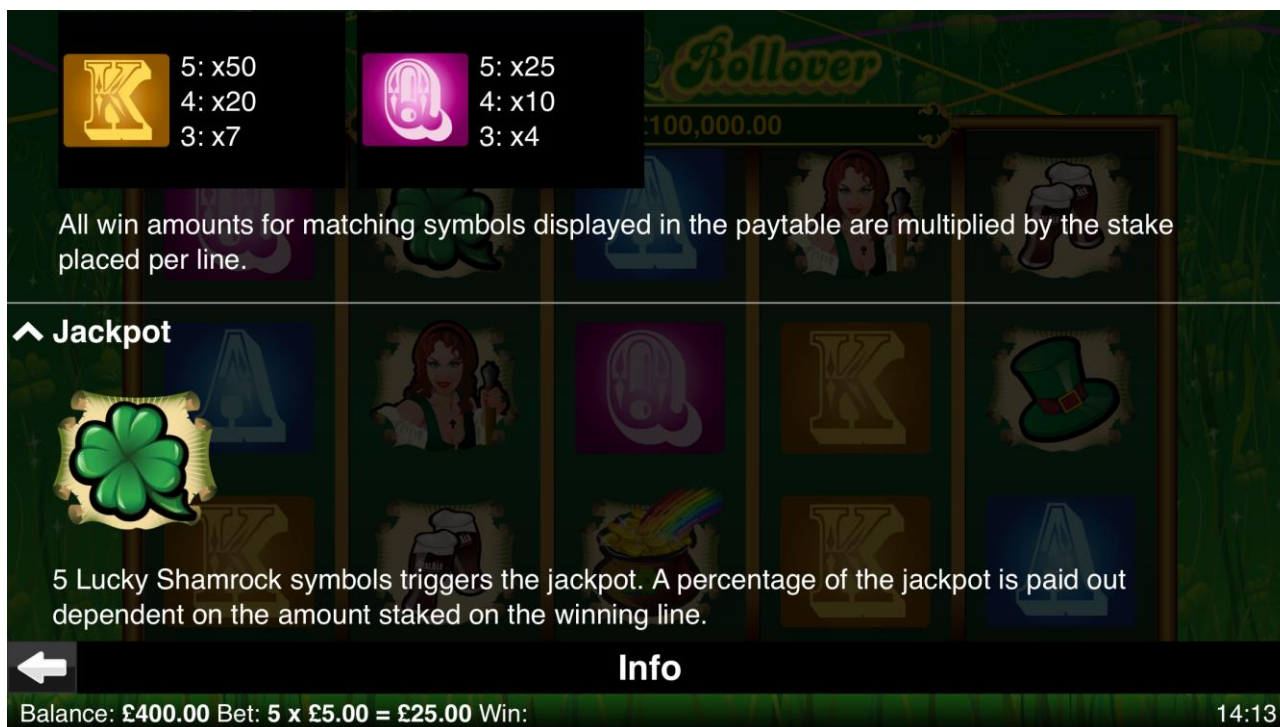
APPENDIX B: Game software identification

File name	SHA1
less-master.css	90bc6f7b1ecff71a777a a6c7fd27398c3784b386
lines-x1.json	3c34cb60ed00ec9f6d2c e594aca61c48d990ae52
lines-x1.png	c77d537a20611c94e48b 2ad213f8be7e15bc76b0
sprite-x1.json	2a85e5ec9bae5ea7c103 457546eb5037eb8514a8
sprite-x1.png	0bf3ccc60f692f54cbe6 03dade4d806e71b56a67
backgrounds-x1.json	948b1549793aaf9370ed 9d9b2499a48db233ae96
backgrounds-x1.png	5613d245e4c20a07d3b3 5f53cb873a8613e80702
casinofruitmachine-16.5.0-0-SNAPSHOT.jar	15d097d256ccbbda8ddd 81a71f6a974905ddf17f



APPENDIX C: Screenshots







Paytable:

	5: x50 4: x20 3: x7		5: x25 4: x10 3: x4
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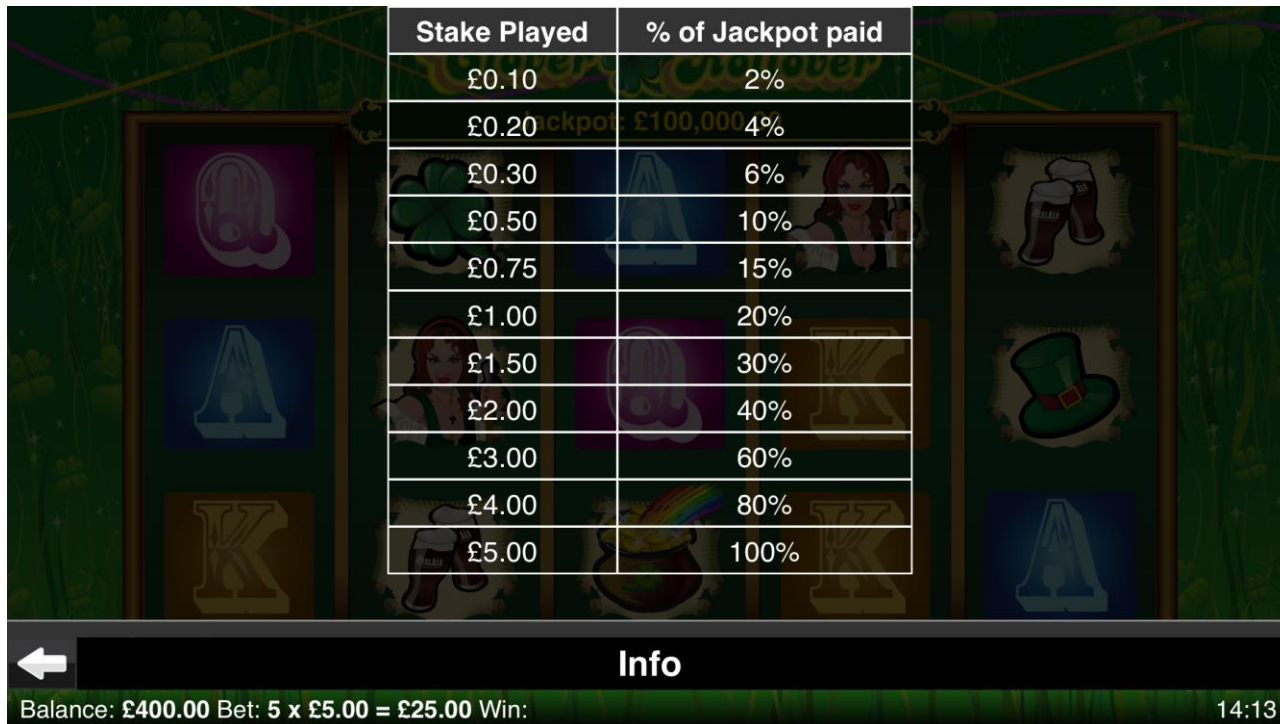
All win amounts for matching symbols displayed in the paytable are multiplied by the stake placed per line.

Jackpot:

5 Lucky Shamrock symbols triggers the jackpot. A percentage of the jackpot is paid out dependent on the amount staked on the winning line.

Info

Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win: 14:13



Stake Played	% of Jackpot paid
£0.10	2%
£0.20	4%
£0.30	6%
£0.50	10%
£0.75	15%
£1.00	20%
£1.50	30%
£2.00	40%
£3.00	60%
£4.00	80%
£5.00	100%

Info

Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win: 14:13

£1.00	20%
£2.00	40%
£3.00	60%
£4.00	80%
£5.00	100%

Winning Lines

1 [Yellow symbols] 2 [Green symbols] 3 [Green symbols] 4 [Blue symbols] 5 [Purple symbols]

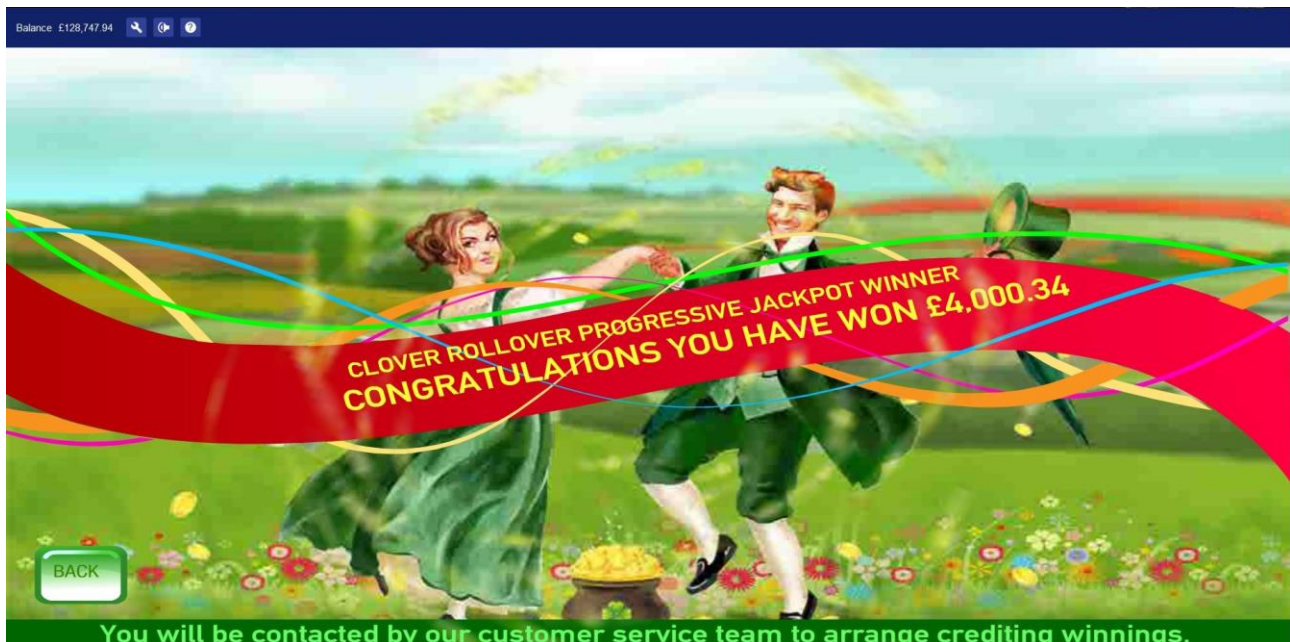
Malfunction

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

Info

Balance: £400.00 Bet: 5 x £5.00 = £25.00 Win: 14:13

The following screenshots are taken from the Desktop version:



APPENDIX D: Reels

	Reel0	Reel1	Reel2	Reel3	Reel4
0	Ace	Queen	Beer	Beer	Beer
1	King	Irish Lady	Hat	Queen	Celtic Cross
2	King	Queen	Beer	Beer	Hat
3	Hat	King	King	King	Ace
4	Gold Pot	Ace	Queen	Ace	King
5	King	Queen	Hat	King	Hat
6	Beer	Irish Lady	Queen	Queen	Queen
7	King	Hat	King	Lucky Shamrock	King
8	Irish Lady	Queen	Ace	Celtic Cross	Queen
9	Beer	Gold Pot	Queen	King	Ace
10	Queen	Hat	Celtic Cross	Ace	Queen
11	Ace	Queen	Hat	Irish Lady	Ace
12	Queen	Hat	Queen	King	Hat
13	Ace	King	Irish Lady	Hat	Ace
14	Irish Lady	King	Ace	King	King
15	Beer	Beer	Queen	Irish Lady	Irish Lady
16	Lucky Shamrock	Ace	Queen	King	Queen
17	King	Beer	King	Queen	Gold Pot
18	King	King	Queen	Hat	King
19	Queen	Ace	King	Beer	Queen
20	Queen	Ace	Queen	Queen	Beer
21	King	Queen	King	Gold Pot	Beer
22	Queen	King	Gold Pot	Ace	King
23	Beer	Queen	Ace	Queen	Queen
24	Celtic Cross	Celtic Cross	Irish Lady	Queen	Irish Lady
25	Ace	King	Queen	Hat	King
26	Queen	Queen	King	Queen	Queen
27	Ace	Beer	Beer	Beer	King
28	Hat	Ace	Ace	King	Ace
29	Queen	King	Queen	Ace	Queen
30	Ace	Queen	Beer	Beer	Beer
31	King	Irish Lady	Hat	Queen	Celtic Cross
32	King	Lucky Shamrock	Beer	Beer	Hat
33	Hat	Queen	King	King	Queen
34	Gold Pot	Ace	Beer	Ace	Beer
35	Queen	Beer	Hat	King	Hat
36	Beer	King	Queen	Ace	Ace
37	Queen	Hat	King	King	King
38	King	Queen	Ace	Celtic Cross	Queen
39	Beer	Gold Pot	Queen	Queen	Celtic Cross
40	Queen	Hat	Celtic Cross	Celtic Cross	Ace

	Reel0	Reel1	Reel2	Reel3	Reel4
41	Ace	Queen	Hat	King	Ace
42	King	Hat	Queen	Queen	Hat
43	Queen	King	Irish Lady	Hat	Queen
44	Irish Lady	King	Ace	Queen	King
45	Beer	Beer	Lucky Shamrock	Irish Lady	Irish Lady
46	Queen	King	Queen	King	Queen
47	Queen	Lucky Shamrock	King	Queen	Gold Pot
48	King	Queen	Ace	Hat	Queen
49	Queen	Ace	Queen	Queen	King
50	Queen	Ace	Ace	Lucky Shamrock	King
51	King	Queen	King	Gold Pot	Beer
52	Queen	King	Gold Pot	Ace	King
53	Beer	Queen	Celtic Cross	Queen	Queen
54	Celtic Cross	Celtic Cross	Lucky Shamrock	Queen	Lucky Shamrock
55	Queen	King	Queen	Hat	King
56	Queen	Celtic Cross	King	Queen	Queen
57	Ace	Beer	King	Beer	Lucky Shamrock
58	Hat	Ace	Ace	King	Ace
59	Queen	Queen	Queen	Ace	Queen