

RANDOMNESS EVALUATION REPORT

FOR

NG ENTERTAINMENT LTD.

FRUIT TWISTER

HTML5-DESKTOP

1.0

CONFIDENTIAL
CERTIFICATE NUMBER: 29111NGMALM



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MALTA GAMING AUTHORITY - RANDOMNESS EVALUATION REPORT

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SECTION 1. GENERAL INFORMATION

License Holder: NG Entertainment Ltd.

97 Windsor Street

Sliema SLM 1853 Malta

Game Name: Fruit Twister

Game Type: Casino Slot

Platform Type: HTML5-Desktop

Game Version: 1.0

Applicable Technical Standards: Licensing requirements of the Malta Gaming Authority ('MGA')

Subsidiary Legislation 438.04 Remote Gaming Regulations Third Schedule, Regulation 25

Testing Laboratory: eGaming Compliance Services Limited, trading as 'eCOGRA'

2/F Berkeley Square House

Berkeley Square London W1J 6 BD United Kingdom

Test Engineers: Joanne Johnson, Josephine Govender, Tyrone Rajah

Supervisor: Adent Ngobeni

Request for Report: 14 September 2020

Report Date: 21 September 2020

Certificate Number: 29111NGMALM

In our opinion the game listed as tested in this report complies with the relevant sections of the licensing requirements of the Malta Gaming Authority ('MGA').

The test results obtained for NG Entertainment Ltd.'s Fruit Twister HTML5-Desktop 1.0 game produced statistically acceptable random numbers that were free of any significant statistical bias or predictability.

Gary Lupton-Smith,

Technical Services Manager



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 $\label{eq:NGEntertainment} \mbox{NG Entertainment Ltd.}$ Fruit Twister, HTML5-Desktop, 1.0

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SECTION 2. INTRODUCTION

eCOGRA has been appointed by NG Entertainment Ltd. to evaluate and certify the following Slot game for compliance with the relevant licensing requirements Subsidiary Legislation 438.04 Remote Gaming Regulations, Third Schedule, Regulation 25 of the Malta Gaming Authority ('MGA').

> Fruit Twister (1.0) - NG Entertainment Ltd.

This certification report highlights our key findings as a result of the evaluation conducted on HTML5 - Desktop, Platform 1.0, which is the pre-production environment which is essentially the same as the live environment. The testing was conducted on the aforementioned platform established at NG Entertainment Ltd. during the period 15 September 2020 to 21 September 2020.

Please note that this is an initial certification conducted over Fruit Twister, HTML5-Desktop, 1.0 and therefore this game certificate does not supersede any previous certifications.



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SECTION 3. RNG COMPONENTS

The Random Number Generator (RNG) as detailed in Section 2 and used by NG Entertainment Ltd. in their Fruit Twister 1.0 product was previously certified by GLI UK Gaming (GLI UK) refer to RNG report: 413-19-001-UK-RTS-01-Report_en. The scope of eCOGRA's randomness testing was limited to testing the randomness of the game output of the Fruit Twister 1.0 game.

Software Provider:	NG Entertainment Ltd.	
Software Provider Address:	97 Windsor Street	
	Sliema	
	SLM 1853	
	Malta	
Product Name:	Random Number Generator	
Product Description:	RNG Version 1.0	
Jurisdiction:	Malta Gaming Authority, Malta	
Jurisdiction address:	Building SCM 02-03,	
	Level 4, SmartCity Malta,	
	Ricasoli SCM1001,	
	Malta	
Test entity:	GLI UK Gaming Ltd (GLI UK)	
Test entity address:	Llys Helyg,	
	Parc Menai,	
	Bangor LL57 4EZ,	
	United Kingdom	
Date:	21 June 2019	
Approval:	Dr. Richard Edwards, Director	



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SECTION 4. TEST RESULTS

Numerous recognised statistical and mathematical tests were performed on a 1,000,000 rows of sample data, provided by NG Entertainment Ltd., of the game output to verify the RNG operates in a random and fair manner. This included tests for probability (to ensure the expected number of occurrences), randomness (so that the following occurrence cannot be predicted with any degree of certainty) and uniformity (to determine that each possible outcome is equally likely over the long-term). The acceptance criteria for the statistical tests is a pass at a 95% confidence level.



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SECTION 5. GAME DESCRIPTION

Fruit Twister (1.0)

Game Description:

Fruit Twister is a 4x5 online slot game with 25 fixed pay lines, featuring "Mystery Treat Feature", "Free Spins", "Wild Fruit Blast Free Spins" and "Ripening Free Spins" Features.

Further details regarding the betting characteristics, features and detailed game rules can be found in the game instructions which can be provided upon request.



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SECTION 6. PERCENTAGE RETURN TO PLAYER ('RTP')

Game Name	me Theoretical RTP % eCOGRA RTP % Recalculation	
Fruit Twister	96.50%	96.57%

The Theoretical RTP percentage indicated in the table above is extracted from the game documentation as provided by NG Entertainment Ltd. eCOGRA recalculated the RTP percentage by performing additional independent mathematical calculations on the output of simulation game data.



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SECTION 7. GAME SOFTWARE DETAILS

The scope of the game evaluation and certification applies solely to the critical game files, game versions and associated hashes provided in the tables below:

Game Files

File Name / Identifier	Version Date	Version Number	SHA-1 Hash Sum
configurationFT.txt	13-09-2020	1.0	C7DE84E2726B9081E757CDD5D10665C6EDE0BA14
line wins handler.inc.php	20-01-2020	1.0	4265BFE2ACF6549D2A8C2708DDCCC26E6657D396



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SECTION 8. REVIEW FINDINGS

Rei	mote Gaming Regulations	Rating	Comments
Thi	rd Schedule - Regulation 25 - Technical requi	ement for gaming syste	em
1.	The gaming system must:		
	 a. faithfully follow the game ru published by the operator; and 	es Compliant	
	 b. provide over time no more than texpected house advantage to temperator. 		Not applicable to this game type.
2.	Both the gaming and financial transaction must be congruent and secure.		The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
3.	The gaming system must satisfy the following	g criteria for randomnes	s, following Schneier:
	 a. the data must be randomly generate passing appropriate statistical tests randomness; 	· ·	Refer to RNG certificate: 413-19-001-UK-RTS-01-Report_en
	 the data must be unpredictable, i.e must be computationally infeasible predict what the next number will be given complete knowledge of to algorithm or hardware generating to sequence, and all previous generated numbers; 	to pe, he he	Refer to RNG certificate: 413-19-001-UK-RTS-01-Report_en
	c. the series cannot be relial reproduced, i.e. if the sequen generator is activated again with t same input (as exactly as is reasonal possible) it will produce to completely unrelated rando sequences.	ce he bly	Refer to RNG certificate: 413-19-001-UK-RTS-01-Report_en
4.	The outcome of any game event, and the retuto the player, must be independent of the CP memory, disk or other components used in the playing device used by the player.	U,	Refer to RNG certificate: 413-19-001-UK-RTS-01-Report_en



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Rei	note Gaming Regulations	Rating	Comments
	rd Schedule - Regulation 25 - Technical requirem		
5.	The game or any game event outcome must not be affected by the effective bandwidth, link utilisation, bit error rate or other characteristic of the communication channel between the gaming system and the playing device used by the player.	Compliant	
6.	The gaming system must be able to display for e a page directly accessible from the current page	=	ng information on the current page or on
	a. the name of the game;	Compliant	
	b. restrictions on play;	Compliant	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
	 c. instructions on how to play, including a pay-table for all prizes and special features; 	Compliant	
	d. the player's current account balance;	Compliant	
	e. unit and total bets permitted;	Compliant	
	f. the rules of the game.	Compliant	
7.	All financial reports produced by the gaming system must be congruent with gaming transaction reports and conversely: Provided that all such reports shall be readily and freely available to the Authority.	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
8.	The gaming system must: a. be capable of producing monthly auditable and aggregate financial statements of gaming transactions, and	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
	 calculate accurately all taxation and other monies due to the Authority. 	Not applicable	The certification testing included in this report is limited to relevant game



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Remote Gaming Regulations	Rating	Comments
Third Schedule - Regulation 25 - Technical requirem		
		requirements that can be assessed at
		game supplier level. The certification
		testing excludes the assessment of
		compliance against any requirements
		where the game functionality or
		information is not directly managed by
		the game supplier.
9. The gaming system must maintain information a	about all games playe	
a. the identity of the player;	Not applicable	The certification testing included in this
, , ,		report is limited to relevant game
		requirements that can be assessed at
		game supplier level. The certification
		testing excludes the assessment of
		compliance against any requirements
		where the game functionality or
		information is not directly managed by
		the game supplier.
b. the time the game began as recorded	Compliant	The certification testing included in this
on the game's server;		report is limited to relevant game
,		requirements that can be assessed at
		game supplier level. The certification
		testing excludes the assessment of
		compliance against any requirements
		where the game functionality or
		information is not directly managed by
		the game supplier.
c. the balance on the player's account at	Not applicable	The certification testing included in this
the start of the game;		report is limited to relevant game
		requirements that can be assessed at
		game supplier level. The certification
		testing excludes the assessment of
		compliance against any requirements
		where the game functionality or
		information is not directly managed by
		the game supplier.
d. the stakes placed in the game (time	Compliant	The certification testing included in this
stamped by the games server);	- Compilation	report is limited to relevant game
stamped 2, the games server,		requirements that can be assessed at
		game supplier level. The certification
		testing excludes the assessment of
		compliance against any requirements
		where the game functionality or
		information is not directly managed by
		the game supplier.
]	the game supplier.



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Remote Gaming Regu	ulations	Rating	Comments
Third Schedule - Regu	ulation 25 - Technical requirem	ent for gaming syste	m
e. the ga complet	ime status (in progress, e, etc.);	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
	It of the game (time stamped ames server);	Compliant	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
=	the game ended as recorded ames server;	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
h. the amo	unt won or lost by the player;	Compliant	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
	nce on the player's account at of the game.	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or



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Remote Gaming Regulations	Rating	Comments
Third Schedule - Regulation 25 - Technical requirem	ent for gaming syste	m
		information is not directly managed by
40.71		the game supplier.
10. The gaming system must maintain information a	1	T
a. large wins;	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
b. transfers of funds in excess of such amount as the Authority may from time to time direct by notice in writing to the operator;	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
c. changes made by the operator to game parameters.	Not applicable	The certification testing included in this report is limited to relevant game requirements that can be assessed at game supplier level. The certification testing excludes the assessment of compliance against any requirements where the game functionality or information is not directly managed by the game supplier.
11. Any variations to any of the requirements specified in this Schedule shall be submitted to the Authority for its approval by notice in writing.	Not applicable	No variations identified for the product under certification.