

Certification Report. Pragmatic Play Game Audit Report – Spaceman

Report Identification PPL-LV-220615-01-GC-R2

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UKAS ISO/IEC 17025
Accreditation No. 9263

Dates of testing 30 May 2022 to 09 June 2022

Date of issue of
Certification Report 01 July 2022

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Jurisdiction Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI)
Republic of Latvia

Technical Standards used
for testing Gambling and Lotteries Act issued 17 November
2005, including all amendments to 22 November
2017, revised edition 1 July 2018 - 31 December 2018
Regulation 188 issued on 27 March 2018.
Regulation 189 issued on 27 March 2018.
Regulation 715 issued on 5 December 2017

Gaming Associates



1 Notations

1.1 Confidentiality

This document, all related documents, and methodologies embodied in this document and related documents ("the documents") are the property of Gaming Associates Europe Limited (ga). Unauthorized copying and distribution of the documents, by any means, on any media is prohibited.

This document, its themes, and ideas are strictly confidential and may not be used in any manner other than its expressed purpose, without the written permission of the author. The document is for Pragmatic Play Ltd and the Lotteries and Gambling Supervisory Inspection of the Republic of Latvia to advise the compliance status of Pragmatic Play Ltd game Spaceman, against the requirements of the Gambling and Lotteries Act and Regulations No. 188, 189, and 715.

The documents are copyright.

1.2 Disclaimer

ga has reported on what it has discovered through evaluation of Pragmatic Play Ltd game Spaceman.



2 Administration

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2.2 Version

Version	Description	Date
V0.1	Initial draft – MHAS	2022-06-10
V0.2	Reviewed and Updated - WKAS	2022-06-13
V0.3	QA - BANS	2022-06-14
V1.0	Final Report to Pragmatic Play	2022-06-15
V1.1	Revised the report to Pragmatic Play-Updated the RTP	2022-07-01



3 Executive Summary

3.1 Introduction

Pragmatic Play Ltd (Pragmatic Play) has requested Gaming Associates (**ga**) to test the game Spaceman against the following requirements of the Lotteries and Gambling Supervisory Inspection of the Republic of Latvia:

- ♣ Gambling and Lotteries Act issued on 17 November 2005, including all amendments to 22 November 2017, revised edition 1 July 2018 to 31 December 2018.
- ♣ Regulation 188 issued on 27 March 2018.
- ♣ Regulation 189 issued on 27 March 2018. and
- ♣ Regulation 715 issued on 5 December 2017 of the Republic of Latvia.

This report presents the results of testing performed by **ga** for the Spaceman game against the Latvian technical standards. Hashes of the game are listed in Annex A: Hashes of Critical Components.

3.2 Scope of Testing

Pragmatic Play Ltd game Spaceman has been tested against the following game related requirements of the Lotteries and Gambling Supervisory Inspection's technical standards:

- ♣ Gambling and Lotteries Act – Chapters II, VI and VII
- ♣ Regulation 188 – Regulations for the Information Required in the Compliance Reports of Interactive Gambling or Interactive Lottery Game Programmes
- ♣ Regulation 189 – Regulations for the Operation of Systems for the sales and Payments of Interactive Gambling, Interactive Lotteries and Lottery Tickets
- ♣ Regulation 715 - Procedure for the Registration and Identity Checks of Interactive Gambling and Interactive Lottery Players

This compliance evaluation has been performed against game related requirements on the Latvian version and does not include evaluation of the platform and RNG (Random Number Generator).

3.3 Test Summary

1. Versions of games that the game supersedes: None
2. Platform supplier: Pragmatic Play
3. Platform name and version: <https://emul.pragmaticplay.net/cgAPI/test/v3/game/game>

No:	Game Name	Game Type	Jackpot	Channels (game clients)	Game version/ Software build ID	Return to Player (RTP%)
1.	Spaceman	Interactive gambling	No	Desktop and Mobile	1.60.22	95.50%



3.4 Conclusions and Recommendations

Pragmatic Play Ltd's game Spaceman complies with the following requirements of the Lotteries and Gambling Supervisory Inspection of the Republic of Latvia:

- ♣ Gambling and Lotteries Act issued 17 November 2005, including all amendments to 22 November 2017, revised edition 1 July 2018 to 31 December 2018.
- ♣ Regulation 188 issued on 27 March 2018.
- ♣ Regulation 189 issued on 27 March 2018, and
- ♣ Regulation 715 issued on 5 December 2017.

ga recommends Spaceman to be approved for use in the jurisdiction of Latvia.

4 Test Results

This section summarises the results of the tests performed on Spaceman. The tables in the following sub-sections provide the compliance status of the game against the Lotteries and Gambling Supervisory Inspection's requirements. Different values used in the "Compliance Status" column are described as follows:

Compliant: The game complies with the requirement.

Pending: The requirement could not be verified at the time of game evaluation.

Acknowledged: The requirement is only a statement or information.

N/A: The requirement is not applicable to the game.

Out of scope: The requirement cannot be evaluated at this stage due to the current scope of testing or limitation of the test environment.

4.1 Gambling and Lotteries Act: Chapters II, VI and VII

IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Anomalies
	CHAPTER II - Types and Rules of Gambling		
Section 5.	Types of Gambling		
(1)	Organisation of the following types of gambling is permitted in the Republic of Latvia: 1) Automatic slot machine games; 2) Roulette (cylindrical games); 3) Card games; 4) Dice games; 5) Betting; 6) Totalisators; 7) Bingo games; 8) Interactive gambling.	Compliant	The game is an interactive gambling game.
Section 6.	Gambling Rules		
(1)	Rules for each type of gambling - automatic slot machine game, roulette (cylindrical games), card games, dice games, bingo games, totalisator betting or interactive gambling – are document developed by the gambling operator and approved by the Lotteries and Gambling Supervisory Inspection, where the course of game is described and other information identifying the game is provided.	Compliant	The rules and instructions of play are provided for the game.
(2)	The following information shall be included into the gambling rules:	Acknowledged	
	1) Name, legal address and phone number of the gambling operator;	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. The operator is responsible for providing this information.
	2) Title and type of gambling;	Compliant	The game name and game type are displayed in the game rules.
	3) Gambling participation fee (stake);	Compliant	All stake amounts are displayed by the game.
	4) Procedure whereunder a participant may take part in the game;	Compliant	The method of play and any restrictions on play are provided.
	5) Conduct of the game;	Compliant	The game operates and interacts with the player strictly in accordance with the rules;
	6) Conditions, beside which participant is getting the prize as well as the amount of the prize (as well as the prize correlation to the participation fee (stake);	Compliant	The nature of prize information is provided in the game rules.
	7) Procedure whereunder applying for the prize and issuing of the prize is performed;	N/A	Not applicable for interactive game type, as the prize is paid immediately
	8) Term where to the gambling participant can apply for the prize;	N/A	Not applicable for interactive game type, as the prize is paid immediately



IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Anomalies
	9) Where participant can apply in the case of claim as well as procedure of the claim consideration;	N/A	Not applicable for interactive game type, as the prize is paid immediately
	10) Other information deemed to be relevant by the gambling operator.	Compliant	All relevant game information is displayed in the game rules.
(3)	The title and type of game as well as the name of manufacturer for automatic gambling slot machines and the game shall be indicated in the automatic slot machine game rules.	N/A	Not applicable, as game tested is not a slot machine.
(4)	In the bingo game, by application of the game card, the following information shall be indicated thereon:	N/A	The game is not a bingo game.
	1) Name, legal address and phone number of the gambling operator;		
	2) Address where the prize shall be received;		
	3) Final term when the prize is issued;		
	4) Price of the game card or basic stake of the game;		
	5) Serial and series number of the game card.		
(5)	The following information shall be indicated in the rules for an additional game:	N/A	Not applicable, as there is no additional game
	CHAPTER VI - Restrictions on the Operation of Gambling		
Section 41.	Restrictions on the Operation of Gambling		
(1)	It is forbidden for the gambling operator to organise gambling, where at least one of the following conditions is present:	Acknowledged	
	7) The total amount of prizes from totalisator, betting and bingo is not less than 50 percent of the total amount of the deposited stakes, the prize from the automatic games – not less than 80 percent of the total amount of the deposited stakes, and from games of chance on the telephone – not less than 45 percent of the total amount of the deposited stakes.	Compliant	The theoretical RTP % of the game is 95.50%.
	CHAPTER VII – Operation of Gambling via Electronic Communication Services		
Section 44.	Types of Gambling Operated via Electronic Communication Services		
(1)	Via electronic communication services it is allowed to organise automatic slot machine games, roulette (cylindrical games), cards, dice, bingo, totalisators, betting (hereinafter referred to as the interactive games) and games of chance on the telephone.	Acknowledged	
Section 45.	Value of the Prizes in Games of Interactive Roulette (Cylindrical Games), Cards or Dice		
(1)	The total amount of prizes in games of interactive roulette (cylindrical games), cards or dice, may be no less than 80 percent from the total amount of the invested stakes.	N/A	The tested game is not a roulette, card or dice game.
Section 53.	Requirements for the Operation of Interactive Gambling	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform functions have not been tested.

4.2 Regulation 188: Regulations for the Information Required in the Compliance Reports of Interactive Gambling or Interactive Lottery Game Programmes

IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Notes
	Regulation 188 –		

IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Notes
	Regulations for the Information Required in the Compliance Reports of Interactive Gambling or Interactive Lottery Game Programmes		
1.	These regulations shall determine:		
1.1	The information that shall be included in the compliance report of an interactive gambling programme used to operate interactive gambling;	Acknowledged	
1.2	The information that shall be included in the compliance report of an interactive lottery programme used to operate an interactive lottery.	Acknowledged	
2.	An interactive game programme is a set of data necessary to operate interactive gambling or interactive lotteries and contains one or more files.	Acknowledged	
3.	An accredited certification body shall include the following in the interactive game programme compliance report:	Acknowledged	
3.1	General information:		
3.1.1	The name of the certification body;		
3.1.2	Date of issue of the interactive game programme compliance report;		
3.1.3	The number of the interactive game programme compliance report;		
3.1.4	The name of the interactive game programme;		
3.1.5	The name of the interactive game programme producer;		
3.2	Information on the game programme compliance with the following requirements:		
3.2.1	The game programme algorithm shall ensure that the total amount of winnings of interactive gambling is not less than 80 per cent of the total amount of bets made;	Compliant	The RTP % of the game is 95.50%.
3.2.2	The game programme algorithm shall ensure that the total amount of winnings of an interactive lottery is not less than 45 per cent of the total amount of ticket sales;	N/A	The game is not an interactive lottery
3.2.3	The interactive game programme algorithm shall be based on the principle of random selection and the outcome of a game shall be determined through the use of a random selection number generator;	Compliant	The game results are based on random numbers generated by the RNG.
3.2.4	The random number generator algorithm and the random number range change algorithm shall conform with the following requirements:	Out of scope	RNG certification is out of scope
3.2.4.1	The random number output shall be statistically independent;		
3.2.4.2	The random number output shall be unpredictable;		
3.2.4.3	The game outcome produced by the random number generator output shall correspond to a test result obtained by means of a random selection series of tests;		
3.2.5	The checksum of the interactive game programme and each of its components shall be displayed as a code as determined by the developer.	Compliant	
4.	The certification body shall attach to the interactive game programme compliance report a document that confirms its authority to assess the compliance of the interactive game programme.	Acknowledged	
5.	The interactive game programme compliance report issued by the certification body to a specific gambling game or interactive lottery operated by an interactive gambling or interactive lottery operator before the entry into force of these regulations, shall remain valid until such time as changes are made in the respective interactive game programme.	Acknowledged	
6.	If, after the entry into force of these regulations, an interactive gambling game or interactive lottery operated by an interactive gambling operator or an interactive lottery operator does not have a corresponding interactive game programme compliance report issued by the certification body, then, within six months of the entry into force of these regulations, the operator of interactive gambling or interactive lotteries shall submit to the Lotteries and Gambling Supervisory Inspection an interactive game programme compliance report in	Acknowledged	



IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Notes
	accordance with the requirements specified in these regulations.		

4.3 Regulation 189: Regulations for the Operation of Systems for the Sales and Payments of Interactive Gambling, Interactive Lotteries and Lottery Tickets

IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Notes
	Regulation 189 – Regulations for the Operation of Systems for the Sales and Payments of Interactive Gambling, Interactive Lotteries and Lottery Tickets		
I.	General Provisions	Acknowledged	
II.	Submission of Information on Changes in the Interactive Gaming System and its Components	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform/change management have not been tested.
III.	Operating Principles of an Interactive Gaming System, Security Measures and Personal Data Processing and Protection		
11.	The interactive gaming system shall operate on a principle of randomness and shall comply with the following requirements:		
11.1	The probabilities of results of interactive gambling or interactive lotteries (hereafter – an interactive game) shall be based on the principle of randomness;	Compliant	The game results are based on random numbers generated by the RNG.
11.2	The results of an interactive game cannot be predicted, i.e. it shall not be possible to calculate the next combination of numbers or symbols, even if there is information available about the previously created combinations, their calculation algorithm or computing hardware that calculates the next combination of numbers or symbols.	Compliant	The game results are based on random numbers generated by the RNG.
12.	The result of an interactive game and the player's prize shall be independent of:		
12.1	The player's computer equipment, or the central processor, memory, hard disk capacity or other hardware or devices or other equipment that can be used in an interactive game (hereafter – player's computer equipment);	Compliant	The game results are based on random numbers generated by the RNG and are independent of external factors and devices.
12.2	The bandwidth of the Internet connection, the type of connection, the bit error rate or other communication channel characteristics used by a player to communicate between the gaming system and the player's computer equipment.	N/A	The game results are based on random numbers generated by the RNG and are independent of external factors and devices.
13	The interactive gaming system shall store information on all interactive games played by the player for at least the last five years, including the following information:	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform functions have not been tested.
13.1	Player information – given name, surname, identity number and date of birth;		
13.2	Information about the player's account in a credit institution used by the player to place bets in an interactive game;		
13.3	The status of the player's game account at the beginning of the interactive game;		
13.4	The start time of the interactive game;		
13.5	During an interactive game:		
13.5.1	The bets made from the player's game account, indicating the time;		
13.5.2	The entry fee paid by the player, indicating the time;		
13.5.3	The ticket price, indicating the time of payment;		
13.6	The status of the interactive game played by the player (for example, ongoing, finished);		



IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Notes
13.7	The result of the interactive game, indicating the time it was produced;		
13.8	The time when the interactive game was completed;		
13.9	The amount won or lost by the player;		
13.10	The status of the player's game account at the end of the interactive game.		
14.	The operator of an interactive game shall protect the player's account from illegal access and shall prevent the illegal withdrawal of money from the game account.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform functions have not been tested.
15.	The interactive game operator shall store all information on actions performed in the player's account in order to be able to restore it after a complete breakdown of the gaming system.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform functions have not been tested.
16.	The interactive game operator shall store an answer to a control question in an encrypted or secret form in order to establish the player's identity if such a test is applied.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform functions have not been tested.
IV.	Provision of Information on the Gaming System for the Sale of Lottery Tickets and Collection of Lottery Entry Fees and its Security and Personal Data Protection Measures	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform/change management have not been tested.

4.4 Regulation 715: Procedure for the Registration and Identity Checks of Interactive Gambling and Interactive Lottery Players

IAUI Req #	Izložu un Azartspēļu Uzraudzības Inspekcija (IAUI) Requirements	Compliance Status	Comments/Notes
	Regulation 715 – Procedure for the Registration and Identity Checks of Interactive Gambling and Interactive Lottery Players	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Platform functions have not been tested.

4.5 Return to Player

No:	Game Name	Return to Player (RTP%)
1.	Spaceman	95.50%

A game simulator was run to play 100 million games of the Spaceman game and the actual RTP was calculated as 95.50%



5 References

1. Gambling and Lotteries Act of the Republic of Latvia issued 17 November 2005 including all amendments to 22 November 2017, revised edition 1 July 2018 to 31 December 2018.
2. Regulation 188 of the Republic of Latvia issued on 27 March 2018.
3. Regulation 189 of the Republic of Latvia issued on 27 March 2018.
4. Regulation 715 of the Republic of Latvia issued on 5 December 2017.
5. RNG Report “2018PPL077RNG374_1 - PragmaticPlay RNG.pdf”, no version, date 10 Jan 2019.
6. Maths’s spreadsheet “Spaceman_math.xls”, no version, no date.
7. Game Description “Spaceman Game Design”, no version, no date.



Annex A : Hashes of Critical Components

Game Name	Critical Component	SHA-1 Hashes
Spaceman	SpaceManRNGObject.class	d060b63b5707666ce67386eb89e95c311bfa2ebf
	SpacemanSecondLevelRngConfiguration	868735fd0446e6f561c41aaa9328d1cfcc8bf23d
	SpacemanFirstLevelRngConfiguration	8db017e2163384ef1a8aefceaccb72f4af5f8bc3
	ResultCodeVO.class	f7ff44c528a4c6f22a90e936cc299c497045d6b3
	BetCodeVO.class	1e0c535c5357f06538b84b936aa34670d86bb931

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