The Danish Gambling Authority's Certification Programme

Testing Standards for Land-based Betting – SCP.01.02.EN.2.1

Contents

Objectives of the testing standards

1

The testing standards for land-based betting are set out to ensure that the gambling functionality of the gambling system operates in a suitable manner. The presentation of gambling functionality towards the customer can be distorted if the functionality does not operate in a manner that is true to what the customer can rightly expect. Therefore, the gambling system's gambling functionality shall be tested to ensure that it operates in a manner consistent with what is being presented to the customer.

1.1   Scope of this document

Requirements on how testing organisations obtain accreditation for testing the gambling system, business processes and business systems of the licence holder have been specified as well as requirements on how often testing shall be done. These requirements are described in section 2 "Frequency and testing organisations".

The random number generator(s) in the gambling system of the licence holder shall be tested to ensure that they are truly random and that the games are running independently from the device of the customer. These tests are described in section 3 "Requirements for testing of gambling functionality".

It should be noted that betting on electronically simulated sports events is a game of chance considered to be part of the gambling offered by land-based providers of betting, which is why there are requirements concerning the use of random number generators for generating results.

1.2   Version

The Danish Gambling Authority continuously revises the certification programme. The latest version and the version history are accessible at The Danish Gambling Authority's website.

Version 1.0 of 2014.07.04
- A new document structure than the previous version 1.3 alongside with a range of updates in different areas. A new version 1.0 is therefore published. It is the intention to follow normal versioning for future changes.

Version 1.1 of 2015.12.21
- Changes completed to implement requirements for betting on horse and dog races in the certification programme.

Version 1.2 of 2018.01.01
- Changes completed because of liberalization of online bingo, betting on horse- and dog races and betting on pigeon races.

Version 1.3 of 2020.01.01
- Spillemyndigheden has removed the requirement saying the ATO's accreditation must refer to a specific version cf. section 2.2.

Version 2.0 of 2023.01.01
- Update of requirements for accredited testing organisations and staff. RNG requirements regarding result generating and RNG requirements regarding other functionality have been merged in one section. Furthermore, general adjustments and specifications have been made.

Version 2.1 of 2023.10.01
- Updated visual layout of the document. Minor linguistic corrections. No changes to requirements.

When a new version of the certification programme is released, The Danish Gambling Authority will, if necessary, publish guidelines for a transition period and validity of already completed tests.

It must be emphasised that only the Danish version is legally binding. The English version holds the status of guidance only.

1.3   Applicability

Testing Standards for Land-based Betting are applicable for provision of land-based betting (§ 11 in the Danish Gambling act).

Frequency and testing organisations

2

2.1   Certification frequency

The licence holder is responsible to ensure to be certified in accordance with the requirements in this document with an interval of maximum of 12 months.

2.1.1   Initial certification

The licence holder must be certified before a licence to offer games can be issued unless the Danish Gambling Authority has informed otherwise. See section 2.1.3 in the general requirements for further information.

2.1.2   Renewed test

The licence holder must, as a rule, have completed a new test within 12 months of the latest test. The standard report must reflect when the test has been renewed.

The standard report, which documents the renewed test, must be in the Danish Gambling Authority's possession no later than two months after the test was done.

A renewal of the test may be based on sampling, spot checks and compliance with the requirements set out in the document "SCP06.00.DK - Change Management Programme".

2.1.3   Postponement of renewed test

The licence holder can choose to postpone the test up to two months from the time where a new test should have been completed. The new test must be finalised no later than 14 months after the latest test and the standard report must be submitted to Spillemyndigheden within the same deadline.

Spillemyndigheden must be notified before the test is postponed.

The deadline for renewal of test is shortened with the equally amount of time the former 12-month deadline has been postponed. Meaning that if you for instance make use of the maximum two months postponement, then the next test is due 10 months later. The time for the next test shall be reflected in the standard report.

The option to postpone the test only applies to the licence holder. This means that the option does not apply to any suppliers the licence holder may have.

2.2   Accredited testing organisations

To ensure that the necessary qualifications are in place during the certification the testing organisation and their staff shall fulfil the requirements in this section.

2.2.1   Requirements for accredited testing organisations

Testing of land-based betting shall be conducted as accredited testing by a lab, who is accredited after ISO/IEC 17025 or ISO/IEC 17065 referring to Spillemyndighedens Certification Programme SCP.01.02.DK. Accreditation shall be done by DANAK (the Danish Accreditation Fund) or a similar accreditation body, who is co-signer of EA's (European co-operation for Accreditation) multilateral agreement on reciprocal recognition regarding testing, or for labs

outside EA's jurisdiction, by an accreditation body, who is co-signer of ILAC's (the International Laboratory Accreditation Cooperation) multilateral agreement on reciprocal recognition regarding testing.

Documentation for the accreditation shall be enclosed with the certification. Alternatively, a link to the accreditation can be provided in the certification report.

2.2.2   Requirements for personnel who performs testing

The certification work shall be carried out by staff with sufficient qualifications cf. section 6 in ISO/IEC 17025 or ISO/IEC 17065, which means the accredited testing organisation shall hire sufficiently qualified, competent, and experienced personnel.

2.2.3   Requirements for personnel who supervise testing and attest the certification report

Testing shall be supervised, and the certification report shall be attested by one or more persons who warrant(s) that the work has been carried out to professional standards. These persons shall meet the following requirements:
a. For testing of the Random Number Generator, the supervisor shall have a relevant master's or PhD degree or in other ways be able to prove relevant qualifications and have at least five years of professional experience in testing gambling systems.
b. For testing of other gambling functions, the supervisor shall have a relevant educational background or in other ways be able to prove relevant qualifications and have five years of professional experience in testing gambling systems.

See section 2.2 of the General Requirements for further information.

Requirements for testing of gambling functionality

3

3.1   RNG requirements

3.1.1   Random Number Generator suitability for generating results and other functionalities

1	The generation of results in games with an element of chance shall be based on a certified Random Number Generator (RNG) and related functionality (seeding, mapping, shuffling, etc.).
2	Functionality with an element of chance but not used for generating results shall be based on a certified Random Number Generator (RNG) and related functionality (seeding, mapping, shuffling, etc.). Guidance: E.g. This could be the player's seat at a poker table in a tournament or the generation of bingo cards for online bingo.
3	The RNG shall be generally recognised as being a cryptographically strong source for drawing random numbers.
4	The RNG output shall pass one of the following statistical tests: • The DIEHARDER test suite • The NIST (National Institute of Standards and Technology) Statistical Test Suite, or • A similar test suite of the same level. The tests shall be conducted on a data set, which the accredited testing organisation considers to be sufficient for securing statistical valid results.
5	If the RNG is dependent on seeding, when using the RNG, no more numbers may be drawn on the same seeding than the number of numbers drawn on the same seeding during the statistical tests described under requirement 3.1.1.4.

3.1.2   Use of RNG-output

1	When RNG output is received, for example, when a game requests the RNG for a series of case numbers, the output must be used in the order it is received. Guidance: RNG output must not be overridden due to "adaptive behavior", which prohibits automatic or manual intervention, which changes the probability of a given result while the game is being played.
2	The gambling system must ensure that there is traceability between RNG extracts and the event in the game. Guidance: The licence holder shall be able to verify that the results of the RNG are the same as those found in the gambling system after the event.
3	If the rules of the game require a sequence or mapping of units or events to be set up in advance, it is not permitted to assign a new sequence or new mapping to the units or events unless this is stated in the rules.
4	Random outcomes that decide games shall not be affected or controlled by anything else than number values produced in an approved manner by the verified RNG combined with the rules of the game. Guidance: e.g. this means that the history of the game or player must not affect the probabilities of the game if it is not disclosed to the player.

3.1.3   Error control procedures

1	In case of errors on the RNG output, including missing output, the RNG must be deactivated. Instructions: It is possible to switch to a backup RNG, provided that it complies with the requirements set for the RNG in this document.

3.1.4   Seeding

1	The gambling system shall secure the RNG output by applying an appropriate and efficient method for seeding and re-seeding.

3.1.5   Security

1	RNG output must be secured until used.

	Guidance: RNG output must not be transmitted unencrypted between RNG server and game server.
2	RNG output which is mapped and scaled for a symbol or an event shall be applied immediately and in accordance with the game rules. Guidance: This does not prevent games which temporarily change character while ongoing from being played in accordance with the game rules of these games.

3.2   Game execution

3.2.1   Accurate representation of chance

1	All game events shall be presented correctly.
2	Games shall give a fair impression of whether a customer is able to affect the outcome. Guidance: Games which give the customers the impression that they have control over the outcome of the game when they do not (i.e. the result is completely random) are not permitted.
3	The gambling system shall ensure that all games, which are being presented as being based on random outcomes have the same chance of producing a given combination each time the game is played. Guidance: This chance must be the immediate chance, which the player is presented to in the interface (e.g. by the visual impression. An exception to this is, if it is presented clearly to the player, that you have to see somewhere else in order to find the actual chance. Guidance: The games are not allowed to adjust to the behaviour of the player, except if the player makes a specific choice in the game, which is part of the game logic and is presented in the game rules.
4	Games which involve the simulation of a physical object shall provide true and fair outcomes in accordance with expectations to this physical object. Guidance: If a game is presented as a direct or indirect simulation of a physical object, the simulation shall be identical with the expected behaviour of the physical object.