



# TEST REPORT

Executive Summary Report  
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Report to: **PlayPearls**

Project name: **Random Number Generator (RNG)**

Jurisdiction: **United Kingdom**

Issue date: **06 December 2016**

## Executive summary

This report summarises the assessment of a PlayPearls Random Number Generator (RNG).

The RNG is a Python RNG module that use Python built-in Mersenne Twister 'random' module which provides random numbers to PlayPearls RNG games.

Source code and a test harness for empirical testing were provided. The containing platform was not supplied. Our assessment methods included source code review and statistical analysis of RNG outputs generated by the supplied test harness.

The test harness was used to provide the following ranges:

- Full 32 bit numbers (0 and 4,294,967,295 inclusive)
- 0 and 36 (inclusive)
- 0 and 51 (inclusive)
- 0 and 126 (inclusive)

The RNG has been assessed for compliance with the "Remote gambling and software technical standards" (July 2015) and our methodology complies with section 3.2 of the "Testing strategy for compliance with remote gambling and software technical standards" (May 2016).

The output of the RNG was determined to be acceptably random, unpredictable, and not reproducible for all of the ranges assessed. The source code for the RNG has been reviewed and no potential issues are noted. Based on the selection of tests executed it is our assessment that the RNG is suitable for production of random numbers on all of the ranges tested.

No compliance issues are raised in respect of the applicable requirements assessed.

Authorised by:

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