



Dokumentenheten

2005-02-23

1(1)

## Assessment of Random Number Generator

Net Entertainment AB has developed a program for generating pseudo-random numbers in form of series of positive integers. This program and generated number series are used by the electronic casino game application developed by the company.

The program is based on the standard PRNG-classes of Java (developed by Sun Microsystems Inc.), which have passed standard assessment tests for randomness according to existent scientific documentation.

The assessment process at SKL (the National Laboratory of Forensic Science in Sweden) verifies the following properties of a series of presumed pseudo-random numbers:

- 1) No serial correlation
- 2) No runs
- 3) Uniform distribution over the range of the numbers

To assess the number series generated by the program example series, the largest with 20E+6 numbers in the range 1 to 20E+6, have been generated and statistical tests for autocorrelation, runs and uniform distribution fit (chi-square-test) have been performed.

None of these tests show any significant violation of the above properties and the result of the assessment is therefore that the program is approved by SKL.

Linköping, Feb 23 2005

Anders Nordgaard  
Responsible for lottery tests