# **PROTEGO • ST** A division of Sigillium Corp.

PSDK Software Development Kit

For SGxxx line of True Random Number Generators



For easy use of our True Random Number TRNG products in the SGxxx series, we recommend that you purchase the Protego Software Development Kit PSDK. It could be used for development of new applications supporting the SG100 line of devices. You will get driver redistribution rights for your application with the purchase of the PSDK.

#### **PSDK Features**

- Easy to use API interface, Immediate action if the device fails.
- Fast response to the calling process.
- Interface for multiple processes reading noise.
- Do not deliver low quality noise when first called or if called repeatedly.
- The devices are interchangeable in your application if you use the PSDK.

# The PSDK has two different driver configuration options:

#### A pre-built driver for the Windows operating system

The API of the driver (\*.h file) is included as well as compiled demo programs in  $C/C_{++}$ . Using the provided compiled demo program you may extract noise to a named file to facilitate an easy interface with almost any statistical or security product. The driver may be linked directly into the EXE of an OEM product.

# Linux/MacOS/Windows Source Code Driver stack 32bit/64bit

Source code is included for a complete Linux/MacOS/ Windows 32bit/64bit driver stack. The driver is provided as source code in C/C++, this may be integrated with any application. Random numbers are obtained by a function calls. The Linux/Windows source driver compiles on Windows, Linux, MacOS and Solaris. The driver is easy to modify and adopt to different architectures and application areas.

## Sample Applications

Some sample applications is includes for your convenience on the PSDK. Example source code for many applications is included: The PSDK is the interface between your code and the SG line of TRNG products. It could be used for development of all sorts of new applications. The PDSK contains pre-built binary Windows drivers. They work with all known windows versions from Windows 95 to Windows 10 with no issues. The source code for the s

#### Lotto

This utility will work as a lotto drawing with many usable options. lotto BALLS DRAWS EXTRABALLS ITERATIONS where BALLS is the number of balls in the urn of the lotto; DRAWS is the number of balls drawn from the urn; EXTRA-BALLS is the number of balls to draw in addition in each drawing; ITERATIONS is the number of lotto draws to perform; The first "DRAWS" balls from the urn will be output sorted in numerical order and the "EXTRABALLS" will be added unsorted.

## **Code Generator**

This utility creates 8 digit numeric codes up to a user defined maximum value. The software generates the numeric codes with duplicate check.

#### **Character generator**

This utility generates sequences of characters at random. The characters that are allowed to be used are user defined.

## **Binary Gen**

This utility reads data from the SG100 and the SG100 EVO and saves it in files. It reads the amount of data you specify and saves it to one or more files.

# C# and VB Net source code example projects also included.

## Utilities

There is also a test program for Diehard output in the SG100 directory called rnd2file.exe. The Die Hard test compiled for Windows is included.