Introduction to libQRNG library

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1 Establising connection with the QRGN server

In order to retrive data from the QRNG service provided by the PicoQuant and the Department of Physics of Humboldt University, it is necessary to register on the service web page [1]. In order to establish a connection with the server one can use one of the function

- `qrng_connect(qrng_username, qrng_password)` – establish a connection with the QRNG service (qrng.physik.hu-berlin.de:4499),
- `qrng_connect_SSL(qrng_username, qrng_password)` – establish a secure connection with the QRNG service using SSL.

Both functions require username and password provided during the registration. The connection is closed using `qrng_disconnect()` function.

- `qrng_disconnect()` – close the connection with the QRNG server.

2 Retriving random data

QRNG service allows to retrive random data in the form of integer number, double precision numbers or byte

References

[1] QRNG Service, `http://qrng.physik.hu-berlin.de`

[2] M. Wahl, M. Leifgen, M. Berlin, T. Röhlicke, H.-J. Rahn, and O. Benson, *An ultrafast quantum random number generator with provably bounded output bias based on photon arrival time measurements*, Appl. Phys. Lett. 98, 171105 (2011) `http://dx.doi.org/10.1063/1.3578456`