

MT19937 PRNG

Built-in PRNG in Python's *numpy* package.

Input

Seeds file in *.csv* format with a column named *seeds* including positive integers indicating seeds. Remaining inputs are well described in *help* (check *Usage* section).

Results

As a result you get a *.pkl* file generated in the specified directory with the specified name, given after *-output-file* flag. If not specified, there is a default name given (check Usage section). If *seeds* flag is specified, then the programme takes decimal numbers in the specified *.csv* file, and generates numbers for each seed. Afterwards, the programme creates *.pkl* files (as many as there are seeds) and saves them in the specified directory (if not specified, saves in the working directory).

Usage

To use *MT19937*, you need to run *z3mt19937.py* using python version 3 with installed *numpy*, *argparse*, *pandas* and *pickle* packages.

To learn how to use this PRNG, it is advised to run programme with one of the following commands:

```
python3 z3mt19937.py --help
python3 z3mt19937.py -h
```

Examples

```
python3 z3mt19937.py --output-file numbers.pkl #saves results in file 'numbers.pkl' in working directory
python3 z3mt19937.py -n 10000 #generates 10000 numbers
python3 z3mt19937.py -n 10 -M 16 #generates 10 numbers with modulus equal to 16
python3 z3mt19937.py --output-file "" #does not generate file, only prints out numbers on the screen
python3 z3mt19937.py --output-dir numbers_dir --seeds seeds_file.csv #saves .pkl files in specified
                                                                    directory with seeds from file
```