

Running speed test of PyRINEX

This running speed test uses AMD Ryzen Threadripper 2970WX 24-Core Processor, 3000 Mhz, 24 cores, 48 logical processors. Timing using Python's time library.

```
start_time = time.time()
QualityCheck("30122231.13o")
end_time = time.time()
duration = end_time - start_time
print("RUNNING TIME: ", duration, "s")
```

azi_ele0

QualityCheck x

C:\Users\Administrator\AppData\Local\Microsoft\Windows\CurrentVersion\Explorer\RecentItems\E:\PycharmProjects\NewPyRINEX\QualityCheck

```
ax = plt.subplot(111, polar=True)
RUNNING TIME: 9.613184452056885 s
```

When processing a RINEX data with eight hours of data recorded internally, the quality check would take about nine seconds.

```
start_time = time.time()
QualityCheck("30122231.13o")
end_time = time.time()
duration = end_time - start_time
print("RUNNING TIME: ", duration, "s")
```

QualityCheck x

C:\Users\Administrator\AppData\Local\Microsoft\Windows\CurrentVersion\Explorer\RecentItems\E:\PycharmProjects\NewPyRINEX\QualityCheck

```
RUNNING TIME: 2.0074539184570312 s
```

But if you choose not to output CSV files and schematics, it only takes about 2 seconds.

3.02	OBSERVATION DATA	Mixed(MIXED)	RINEX VERSION / TYPE
cnvtToRINEX 3.14.0	convertToRINEX OPR	20210907 040721 UTC	PGM / RUN BY / DATE
-----			COMMENT
XBN9A			MARKER NAME
			MARKER NUMBER
GEODETIC			MARKER TYPE

2.10	OBSERVATION DATA	G (GPS)	RINEX VERSION / TYPE
Pinnacle 1.00		16-NOV-08 16:01	PGM / RUN BY / DATE
build April 19, 2002			COMMENT
-Unknown-	-Unknown-		OBSERVER / AGENCY
	Begin Pinnacle project		COMMENT
1115			COMMENT
			COMMENT
			COMMENT

We tested different versions of RINEX data for quality checks and found that they all worked properly.