FASTER3 → Purpose of this presentation

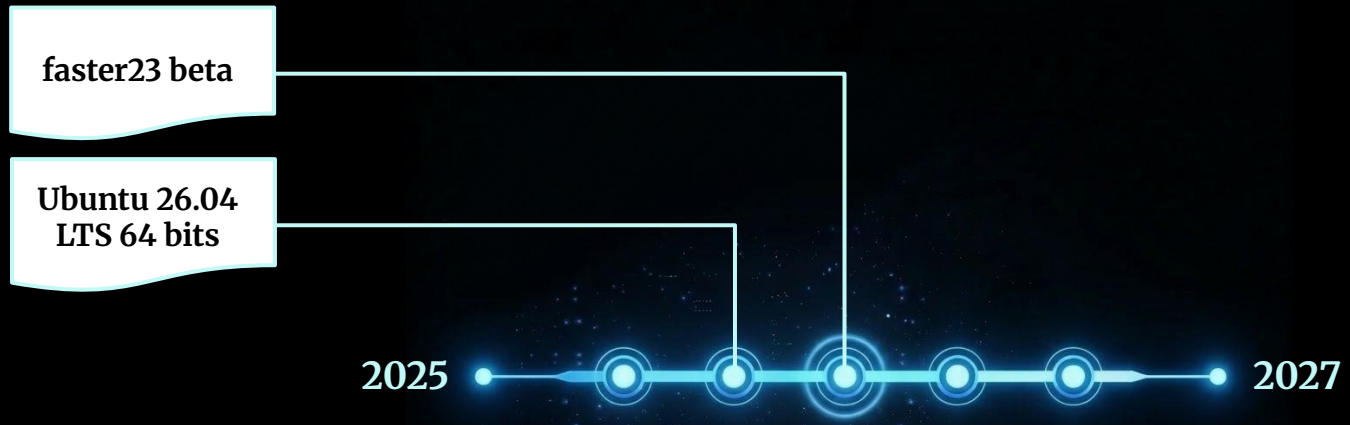
- In this presentation, I will outline the roadmap that will guide the next stages of development and deployment over the next three years.

David Etasse → etasse@lpccaen.in2p3.fr

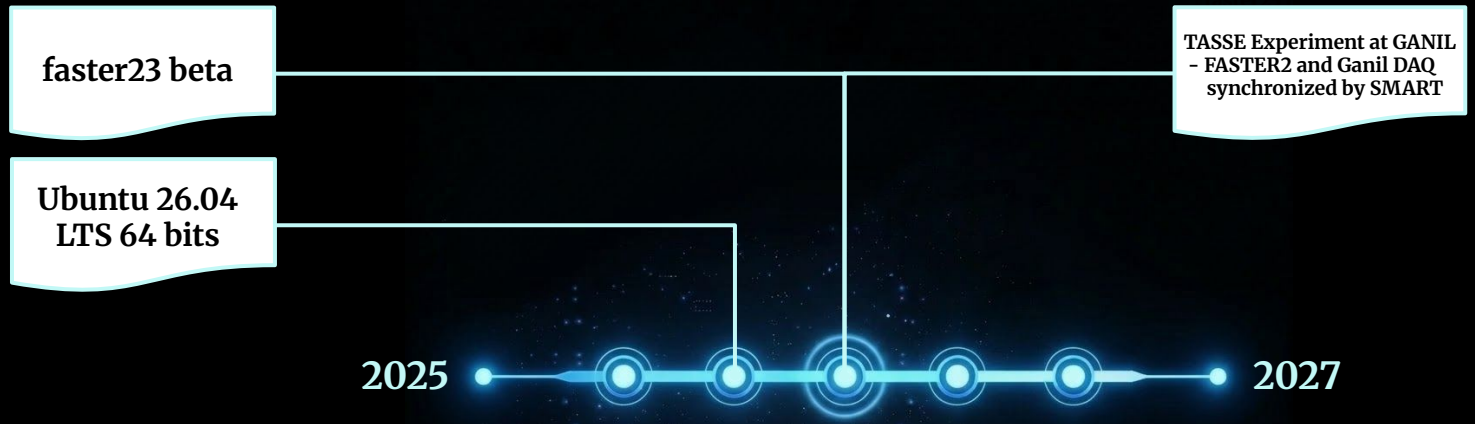
FASTER3 → 2026 Roadmap

FASTER3 → 2026 Roadmap

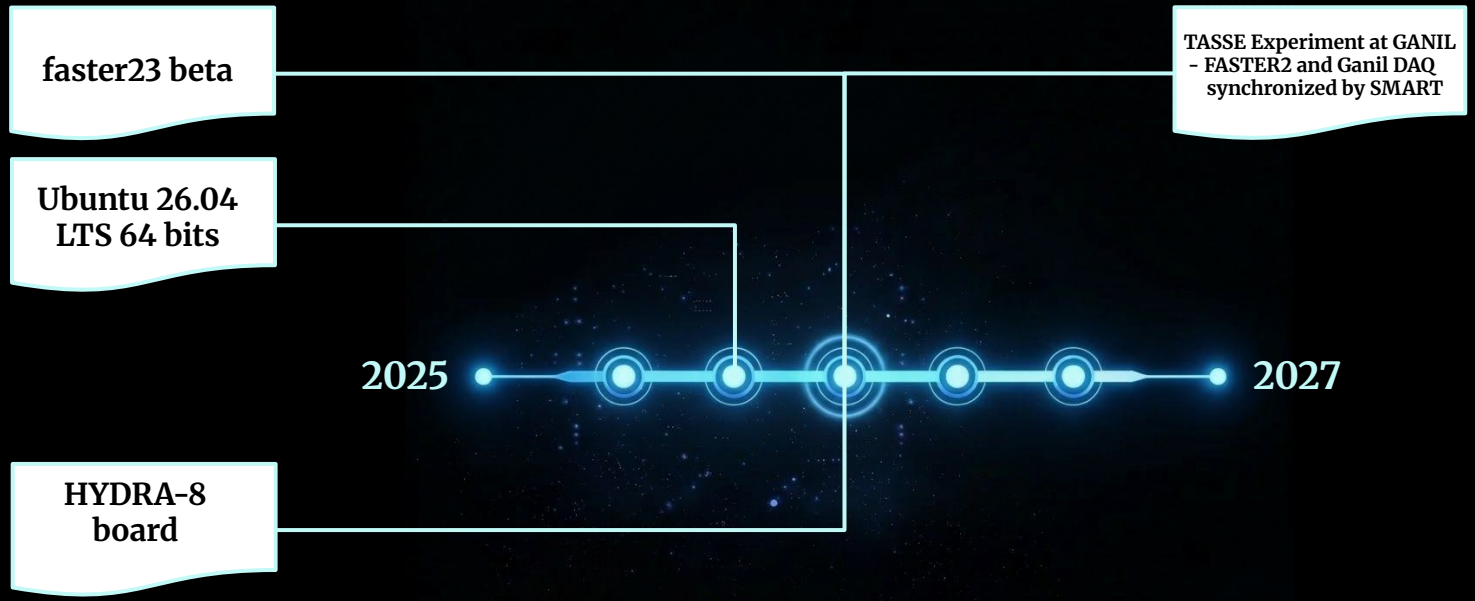
FASTER3 → 2026 Roadmap



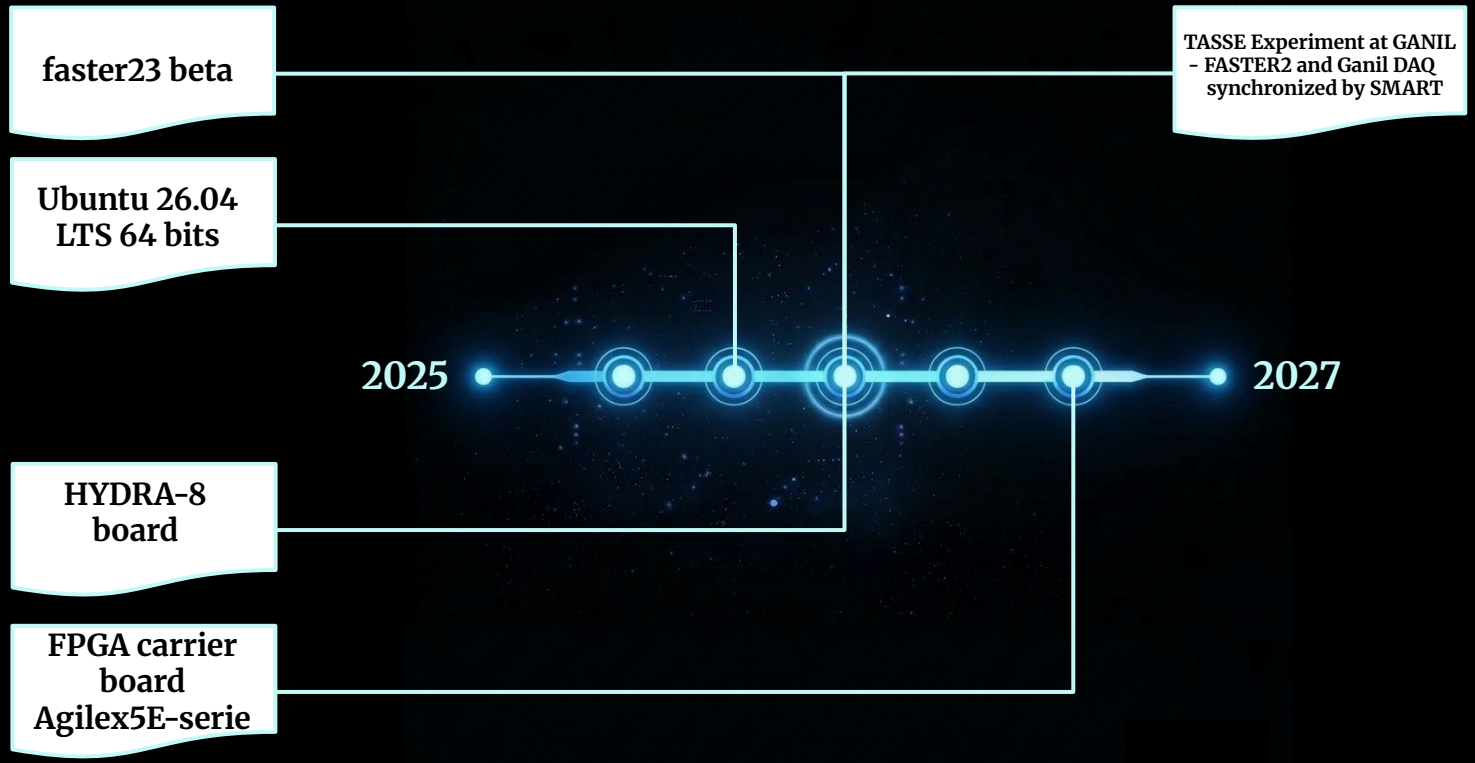
FASTER3 → 2026 Roadmap



FASTER3 → 2026 Roadmap

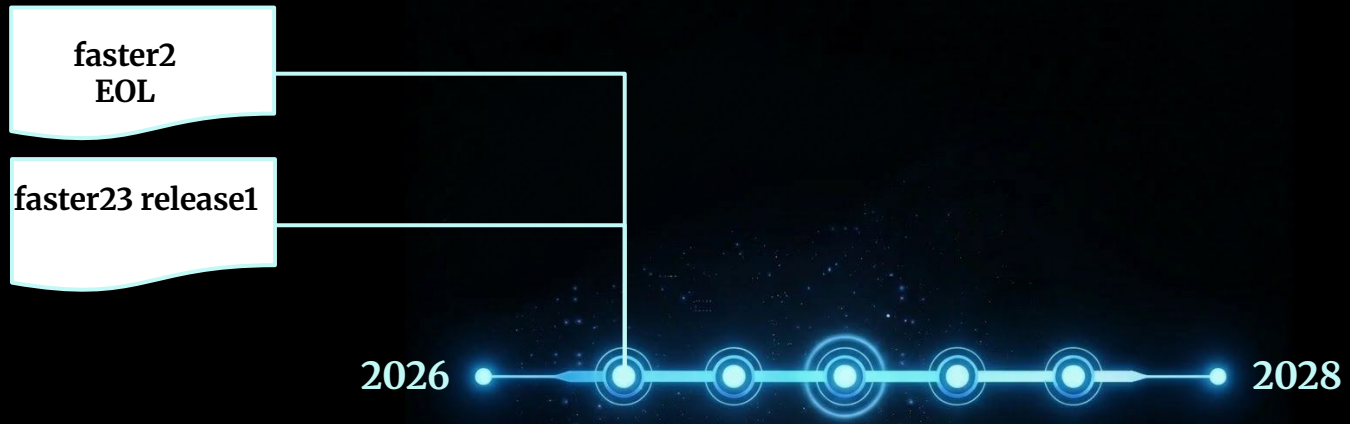


FASTER3 → 2026 Roadmap



FASTER3 → 2027 Roadmap

FASTER3 → 2027 Roadmap



FASTER3 → 2027 Roadmap

faster2
EOL

faster23 release1

2026

2028

CLS HYDRA-8
beta

HYDRA-24
board

FASTER3 → 2027 Roadmap

faster2
EOL

faster23 release1

GRIT DB and its dedicated protocol developed by Charles Houarner@GANIL

2026 — 2028

CLS HYDRA-8
beta

HYDRA-24
board

FASTER3 → 2027 Roadmap

faster2
EOL

faster23 release1

GRIT DB and its dedicated protocol developed by Charles Houarner@GANIL

2026

2028

CLS HYDRA-8
beta

HYDRA-24
board

PEGASSUS-4
board

FPGA carrier
board
Agilex5D-serie

FASTER3 → 2027 Roadmap

faster2
EOL

faster23 release1

CLS HYDRA-8
beta

HYDRA-24
board

2026

2028

GRIT DB and its dedicated protocol developed by Charles Houarner@GANIL

faster3
beta

PEGASSUS-4
board

FPGA carrier
board
Agilex5D-serie

FASTER3 → 2027 Roadmap

faster2
EOL

faster23 release1

CLS HYDRA-8
beta

HYDRA-24
board

2026

2028

GRIT DB and its dedicated protocol developed by Charles Houarner@GANIL

faster3
beta

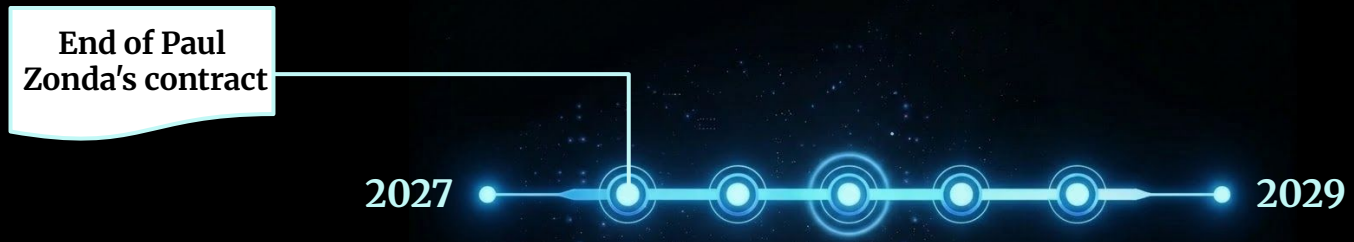
End of Thomas Carreau's contract

PEGASSUS-4
board

FPGA carrier
board
Agilex5D-serie

FASTER3 → 2028 Roadmap

FASTER3 → 2028 Roadmap



FASTER3 → 2028 Roadmap

End of Paul Zonda's contract

2027 — 2029

MLS HYDRA-48

CLS PEGASSUS-4

PEGASSUS-16 board

FASTER3 → 2028 Roadmap

faster23
EOL

End of Paul
Zonda's contract

2027

2029

MLS HYDRA-48

CLS
PEGASSUS-4

PEGASSUS-16
board

FASTER3 → 2028 Roadmap

faster23
EOL

End of Paul
Zonda's contract

2027

2029

faster3
release1

MLS HYDRA-48

CLS
PEGASSUS-4

PEGASSUS-16
board

FASTER3 → 2028 Roadmap

faster23
EOL

End of Paul
Zonda's contract

2027

2029

faster3
release1

MLS HYDRA-48

CLS
PEGASSUS-4

MLS
PEGASSUS-32

VIRGO-4
board

PEGASSUS-16
board

FASTER3 → 2028 Roadmap

faster23
EOL

End of Paul
Zonda's contract

2027

MLS
Mid-scale Laboratory System
2 Digitizer Boxes

MLS HYDRA-48

CLS
Compact Laboratory System
1 Digitizer Box

CLS
PEGASSUS-4

faster3
release1

LLS
HYDRA-96
PEGASSUS-64

2029

MLS
PEGASSUS-32

VIRGO-4
board

PEGASSUS-16
board

FASTER3 → Online demo

FASTER3 → Online demo

INPROC vs IPC vs TCP/IP local vs TCP/IP remote vs RoCE V2

Graphana
Prometheus
Node_exporter

jfast_analyser
pfasterac

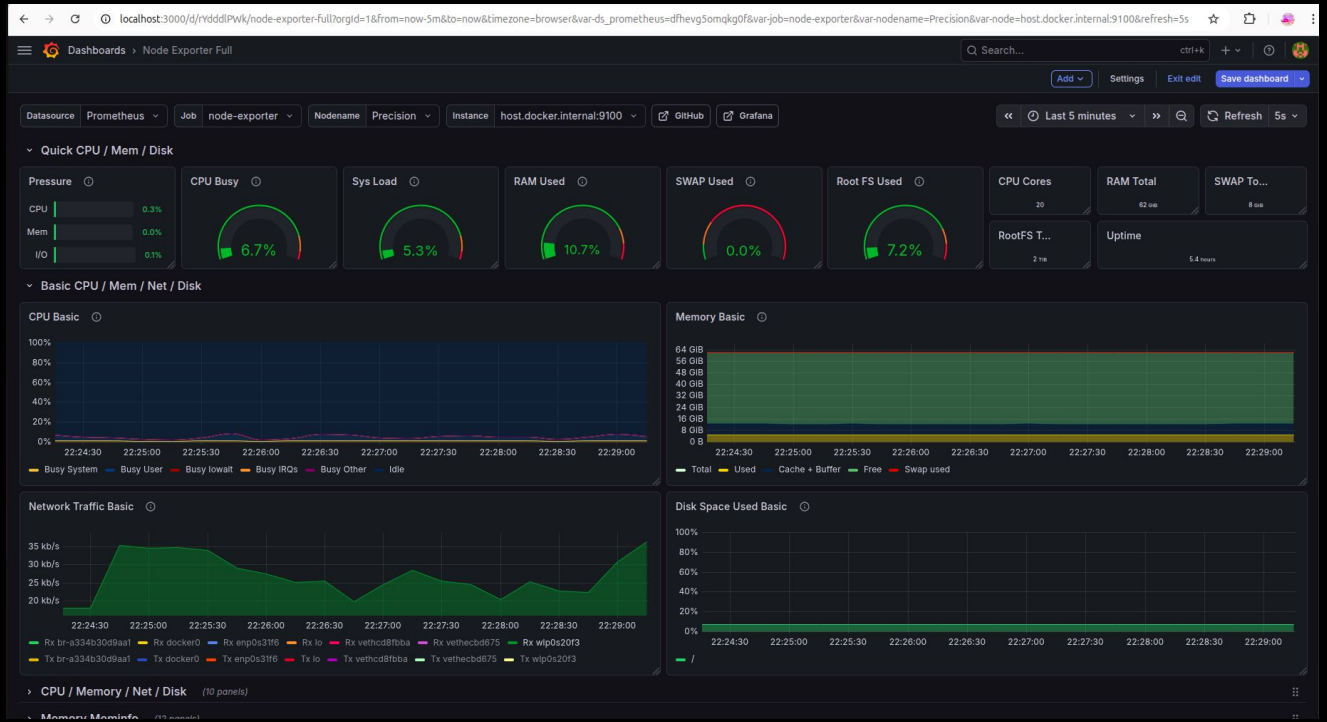
faster23_daq_tui
local vs Japan

FASTER3 → Online demo

- DEMO n°1 → INPROC vs IPC vs TCP/IP Local vs TCP/IP remote vs RDMA

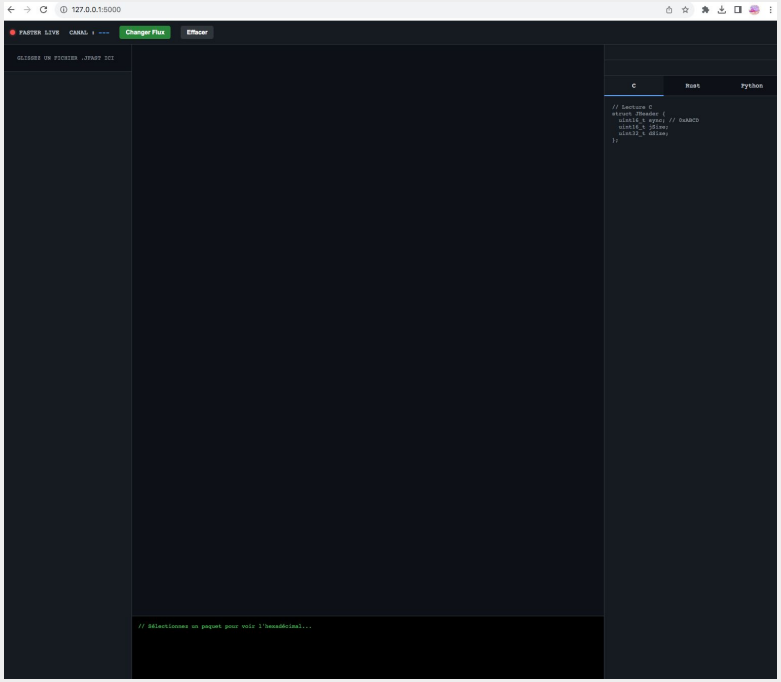
FASTER3 → Online demo

DEMO n°2 → Graphana/Prometheus/Node_exporter



FASTER3 → Online demo

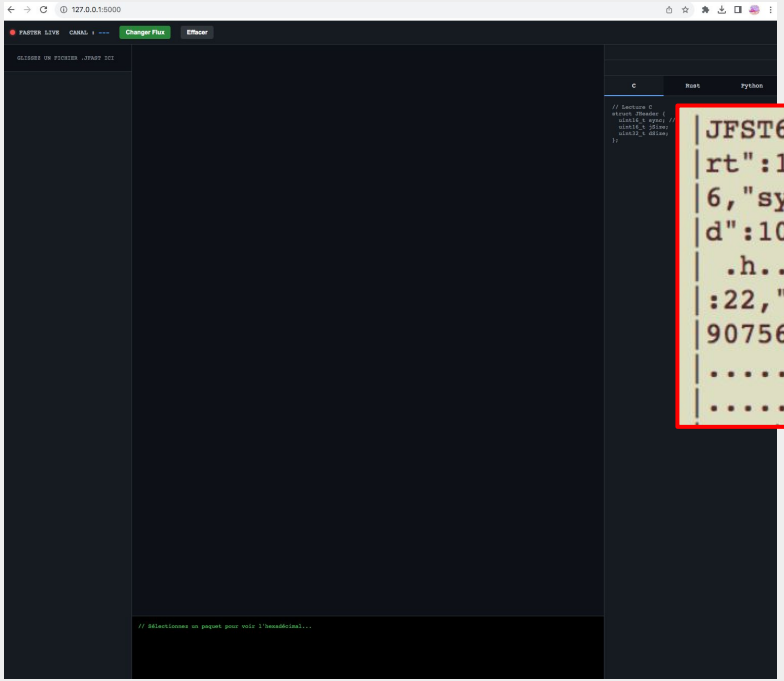
DEMO n°3 → JFAST_ANALYSER




```
faster@faster-dev-1:~/DEV/FASTER_TRUNK/faster3/faster3-0/tests/fastbuffer$ hexdump -C FASTER_DAY.jfast | head -n 50
00000000  4a 46 53 54 36 00 00 00  7b 22 74 73 5f 73 74 61  |JFST6...{"ts_sta|
00000010  72 74 22 3a 31 33 32 30  30 31 39 36 39 30 37 35  |rt":1320019690 75|
00000020  36 2c 22 73 79 6e 63 5f  74 68 72 65 73 68 6f 6c  |6,"sync_threshol|
00000030  64 22 3a 31 30 30 30 30  30 30 30 30 30 7d cd ab  |d":1000000000}..|
00000040  20 00 68 00 00 00 7b 22  6c 22 3a 31 2c 22 79 22  | .h...{"l":1,"y"|
00000050  3a 32 32 2c 22 74 22 3a  31 33 32 30 30 31 39 36  |:22,"t":13200196|
00000060  39 30 37 35 36 7d 94 41  06 00 fc ff e4 ff 14 00  |90756}.A........|
00000070  04 00 f4 ff 14 00 fc ff  1c 00 e4 ff 2c 00 1c 00  |............,...|
00000080  cc 00 ec 00 8c 01 ac 01  34 02 34 02 6c 02 34 02  |........4.4.l.4.|
00000090  14 02 c4 01 5c 01 2c 01  dc 00 b4 00 54 00 5c 00  |....\.,.....T.\.|
000000a0  e4 ff 04 00 c4 ff f4 ff  b4 ff fc ff bc ff f4 ff  |................|
000000b0  cc ff e4 ff cc ff d4 ff  d4 ff d4 ff fc ff cc ff  |................|
000000c0  0c 00 dc ff 2c 00 fc ff  24 00 ec ff 14 00 cd ab  |....,...$.......|
000000d0  14 00 68 00 00 00 7b 22  6c 22 3a 34 2c 22 74 22  |..h...{"l":4,"t"|
000000e0  3a 31 32 33 35 30 38 34  38 7d 94 41 06 00 3a 00  |:12350848}.A..:.|
000000f0  ea ff 1a 00 d2 ff 32 00  ea ff 22 00 da ff 22 00  |......2...".."..|
00000100  2a 00 7a 00 9a 00 fa 00  3a 01 72 01 a2 01 a2 01  |*.z.....:.r.....|
00000110  c2 01 92 01 b2 01 3a 01  52 01 ca 00 ea 00 8a 00  |......:.R.......|
00000120  a2 00 3a 00 4a 00 1a 00  02 00 fa ff e2 ff 0a 00  |..:.J...........|
00000130  da ff 12 00 d2 ff 0a 00  ba ff 1a 00 d2 ff 0a 00  |................|
00000140  b2 ff 02 00 da ff fa ff  e2 ff fa ff f2 ff ea ff  |................|
00000150  12 00 cd ab 14 00 68 00  00 00 7b 22 6c 22 3a 31  |......h...{"l":1|
00000160  31 2c 22 74 22 3a 32 39  39 38 36 34 30 7d 94 41  |1,"t":2998640}.A|
00000170  06 00 f4 ff f4 ff dc ff  04 00 d4 ff 24 00 0c 00  |............$...|
00000180  54 00 44 00 c4 00 d4 00  4c 01 64 01 d4 01 14 02  |T.D.....L.d.....|
00000190  54 02 6c 02 84 02 8c 02  64 02 4c 02 ec 01 d4 01  |T.l.....d.L.....|
000001a0  5c 01 3c 01 a4 00 9c 00  34 00 5c 00 04 00 14 00  |\.<.....4.\.....|
000001b0  dc ff ec ff dc ff cc ff  cc ff bc ff ec ff bc ff  |................|
000001c0  f4 ff cc ff 04 00 d4 ff  1c 00 dc ff 04 00 cc ff  |................|
000001d0  f4 ff d4 ff 04 00 cd ab  13 00 68 00 00 00 7b 22  |..........h...{"|
000001e0  6c 22 3a 38 2c 22 74 22  3a 39 38 30 32 37 35 36  |l":8,"t":9802756|
000001f0  7d 94 41 06 00 2a 00 f2  ff 4a 00 3a 00 92 00 92  |}.A..*...J.:....|
00000200  00 ca 00 e2 00 1a 01 32  01 4a 01 82 01 6a 01 ca  |.......2.J...j..|
00000210  01 92 01 e2 01 a2 01 b2  01 4a 01 5a 01 f2 00 f2  |.........J.Z....|
00000220  00 a2 00 8a 00 6a 00 52  00 52 00 32 00 2a 00 0a  |.....j.R.R.2.*..|
00000230  00 32 00 fa ff 12 00 e2  ff 12 00 e2 ff 12 00 ea  |.2..............|
00000240  ff 1a 00 fa ff 22 00 0a  00 fa ff fa ff f2 ff 0a  |.....".".....".|
00000250  00 e2 ff 0a 00 e2 ff 22  00 cd ab 14 00 68 00 00  |.......".....h..|
00000260  00 7b 22 6c 22 3a 32 2c  22 74 22 3a 31 33 36 38  |.{"l":2,"t":1368|
00000270  35 33 30 36 7d 94 41 06  00 eb ff 2b 00 e3 ff 1b  |5306}.A....+....|
00000280  00 eb ff 03 00 03 00 13  00 33 00 63 00 9b 00 c3  |.........3.c....|
00000290  00 33 01 43 01 c3 01 f3  01 53 02 4b 02 73 02 2b  |.3.C.....S.K.s.+|
000002a0  02 13 02 ab 01 83 01 1b  01 db 00 a3 00 5b 00 4b  |.............[.K|
000002b0  00 23 00 2b 00 e3 ff 13  00 db ff 0b 00 c3 ff fb  |.#.+............|
000002c0  ff bb ff eb ff d3 ff 0b  00 f3 ff fb ff 03 00 fb  |................|
000002d0  ff 1b 00 03 00 2b 00 f3  ff 2b 00 fb ff cd ab 13  |.....+...+......|
000002e0  00 68 00 00 00 7b 22 6c  22 3a 35 2c 22 74 22 3a  |.h...{"l":5,"t":|
000002f0  33 31 34 32 36 39 38 7d  94 41 06 00 1b 00 e3 ff  |3142698}.A......|
00000300  0b 00 e3 ff 03 00 03 00  0b 00 43 00 33 00 73 00  |..........C.3.s.|
00000310  5b 00 cb 00 bb 00 53 01  43 01 c3 01 bb 01 03 02  |[.....S.C.......|
faster@faster-dev-1:~/DEV/FASTER_TRUNK/faster3/faster3-0/tests/fastbuffer$
```

FASTER3 → Online demo

DEMO n°3 → JFAST_ANALYSER

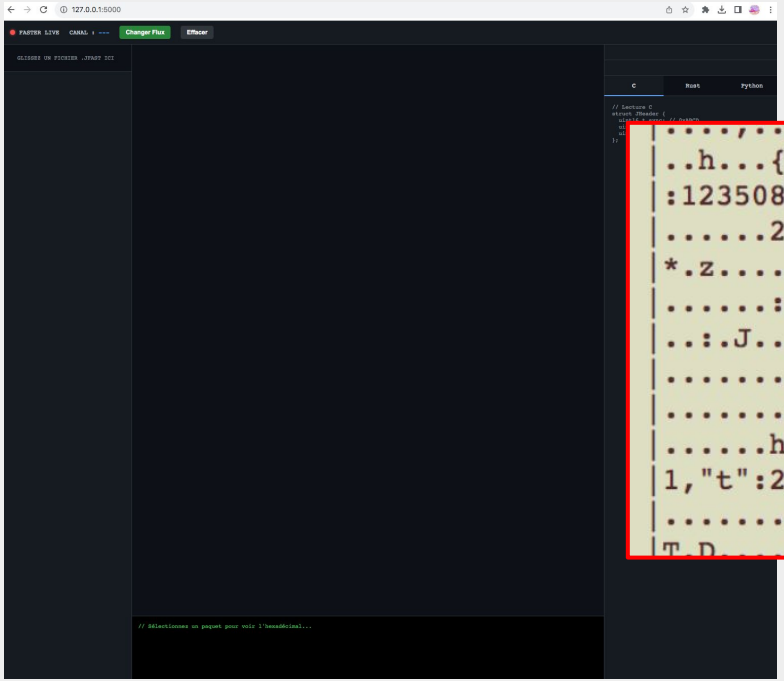


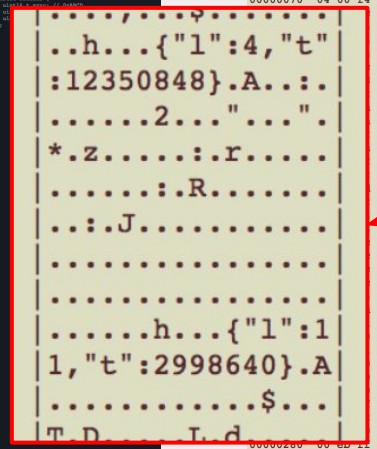

```
|JFST6...{"ts_sta|
|rt":132001969075|
|6,"sync_threshol|
|d":1000000000}..|
| .h...{"l":1,"y"|
|:22,"t":13200196|
|90756}.A........|
|............,...|
|........4.4.1.4.|
```

```
faster@faster-dev-1:~/DEV/FASTER_TRUNK/faster3/faster3-0/tests/fastbuffer$ hexdump -C FASTER_DAY.jfast | head -n 50
00000000  4a 46 53 54 36 00 00 00  7b 22 74 73 5f 73 74 61  |JFST6...{"ts_sta|
00000010  72 74 22 3a 31 33 32 30  30 31 39 36 39 30 37 35  |rt":132001969075|
00000020  36 2c 22 73 79 6e 63 5f  74 68 72 65 73 68 6f 6c  |6,"sync_threshol|
00000030  64 22 3a 31 30 30 30 30  30 30 30 30 7d cd ab  |d":1000000000}..|
00000040  20 00 68 00 00 00 7b 22  6c 22 3a 31 2c 22 79 22  | .h...{"l":1,"y"|
00000050  3a 32 32 2c 22 74 22 3a  31 33 32 30 30 31 39 36  |:22,"t":13200196|
00000060  39 30 37 35 36 7d 94 41  06 00 fc ff e4 ff 14 00  |90756}.A........|
00000070  00 fc ff 1c 00 e4 ff 2c  00 1c 00 00 00 00 00 00  |.......,........|
00000080  01 ac 01 34 02 34 02 60  02 34 02 34 02 60 02 34  |...4.4.`.4.4.`.4|
00000090  01 2c 01 dc 00 b4 00 54  00 5c 00 54 00 5c 00 54  |.,.....T.\.T.\.T|
000000a0  ff f4 ff b4 ff fc ff bc  ff f4 ff 00 00 00 00 00  |................|
000000b0  ff d4 ff d4 ff d4 ff fc  ff cc ff 00 00 00 00 00  |................|
000000c0  00 fc ff 24 00 ec ff 14  00 cd ab 00 00 00 00 00  |...,...$........|
000000d0  00 7b 22 6c 22 3a 34 2c  22 74 22 3a 31 33 32 30  |..h...{"l":4,"t"|
000000e0  30 38 34 38 7d 94 41 06  00 3a 00 00 00 00 00 00  |:12350848}.A..:.|
000000f0  ff 32 00 ea ff 22 00 da  ff 22 00 00 00 00 00 00  |.2...."...".....|
00000100  00 7a 00 3a 01 72 01 a2  01 a2 01 a2 01 00 00 00  |*.z.....:.r.....|
00000110  00 2a 00 3a 01 52 01 ca  00 ea 00 8a 00 00 00 00  |.....:.R........|
00000120  00 1a 00 02 00 fa ff e2  ff 0a 00 00 00 00 00 00  |..:.J...........|
00000130  ff 0a 00 ba ff 1a 00 d2  ff 0a 00 00 00 00 00 00  |................|
00000140  ff fa ff e2 ff fa ff f2  ff ea ff 00 00 00 00 00  |................|
00000150  00 68 00 00 00 7b 22 6c  22 3a 31 00 00 00 00 00  |.....h...{"l":1|
00000160  3a 32 39 39 38 36 34 30  7d 94 41 06 00 24 00 00  |1,"t":2998640}.A|
00000170  ff dc ff 04 00 d4 ff 24  00 0c 00 00 00 00 00 00  |...........$....|
00000180  00 d4 00 4c 01 64 01 d4  01 14 02 00 00 00 00 00  |T.D....L.d......|
00000190  02 8c 02 64 02 4c 02 ec  01 d4 01 00 00 00 00 00  |T.l....d.L......|
000001a0  00 9c 00 34 00 5c 00 04  00 14 00 00 00 00 00 00  |\.<....4.\......|
000001b0  ff cc ff cc ff bc ff ec  ff bc ff 00 00 00 00 00  |................|
000001c0  00 d4 ff 1c 00 dc ff 04  00 cc ff 00 00 00 00 00  |................|
000001d0  00 cd ab 13 00 68 00 00  00 7b 22 00 00 00 00 00  |.....h...{".....|
000001e0  22 74 22 3a 39 38 30 32  37 35 36 7d 94 41 06 00  |"t":9802756}.A..|
000001f0  7d 94 41 06 00 2a 00 f2  ff 4a 00 3a 00 92 00 92  |}.A..*...J.:....|
00000200  00 ca 00 e2 00 1a 01 32  01 4a 01 82 01 6a 01 ca  |.......2.J...j..|
00000210  01 92 01 e2 01 a2 01 b2  01 4a 01 5a 01 f2 00 f2  |.........J.Z....|
00000220  00 a2 00 8a 00 6a 00 52  00 52 00 32 00 2a 00 0a  |.....j.R.R.2.*..|
00000230  00 32 00 fa ff 12 00 e2  ff 12 00 e2 ff 12 00 ea  |.2..............|
00000240  ff 1a 00 fa ff 22 00 0a  00 fa ff fa ff f2 ff 0a  |.....".".....".|
00000250  00 e2 ff 0a 00 e2 ff 22  00 cd ab 14 00 68 00 00  |.......".....h..|
00000260  00 7b 22 6c 22 3a 32 2c  22 74 22 3a 31 33 36 38  |.{"l":2,"t":1368|
00000270  35 33 30 36 7d 94 41 06  00 eb ff 2b 00 e3 ff 1b  |5306}.A....+....|
00000280  00 eb ff 03 00 03 00 13  00 33 00 63 00 9b 00 c3  |.........3.c....|
00000290  00 33 01 43 01 c3 01 f3  01 53 02 4b 02 73 02 2b  |.3.C.....S.K.s.+|
000002a0  02 13 02 ab 01 83 01 1b  01 db 00 a3 00 5b 00 4b  |.............[.K|
000002b0  00 23 00 2b 00 e3 ff 13  00 db ff 0b 00 c3 ff fb  |.#.+............|
000002c0  ff bb ff eb ff d3 ff 0b  00 f3 ff fb ff 03 00 fb  |................|
000002d0  ff 1b 00 03 00 2b 00 f3  ff 2b 00 fb ff cd ab 13  |.....+...+......|
000002e0  00 68 00 00 00 7b 22 6c  22 3a 35 2c 22 74 22 3a  |.h...{"l":5,"t":|
000002f0  33 31 34 32 36 39 38 7d  94 41 06 00 1b 00 e3 ff  |3142698}.A......|
00000300  0b 00 e3 ff 03 00 03 00  0b 00 43 00 33 00 73 00  |..........C.3.s.|
00000310  5b 00 cb 00 bb 00 53 01  43 01 c3 01 bb 01 03 02  |[.....S.C.......|
faster@faster-dev-1:~/DEV/FASTER_TRUNK/faster3/faster3-0/tests/fastbuffer$
```

FASTER3 → Online demo

DEMO n°3 → JFAST_ANALYSER






```
faster@faster-dev-1:~/DEV/FASTER_TRUNK/faster3/faster3-0/tests/fastbuffer$ hexdump -C FASTER_DAY.jfast | head -n 50
00000000  4a 46 53 54 36 00 00 00  7b 22 74 73 5f 73 74 61  |JFST6...{"ts_sta|
00000010  72 74 22 3a 31 33 32 30  30 31 39 36 39 30 37 35  |rt":1320019690 75|
00000020  36 2c 22 73 79 6e 63 5f  74 68 72 65 73 68 6f 6c  |6,"sync_threshol|
00000030  64 22 3a 31 30 30 30 30  30 30 30 30 7d cd ab     |d":1000000000}..|
00000040  20 00 68 00 00 00 7b 22  6c 22 3a 31 2c 22 79 22  | .h...{"l":1,"y"|
00000050  3a 32 32 2c 22 74 22 3a  31 33 32 30 30 31 39 36  |:22,"t":13200196|
00000060  39 30 37 35 36 7d 94 41  06 00 fc ff e4 ff 14 00  |90756}.A........|
00000070  04 00 f4 ff 14 00 fc ff  1c 00 e4 ff 2c 00 1c 00  |............,...|
00000080  00 8c 01 ac 01  34 02 34 02 6c 02 34 02          |.....4.4.l.4.|
00000090  01 5c 01 2c 01  dc 00 b4 00 54 00 5c 00          |.\.,.....T.\.|
000000a0  00 c4 ff f4 ff  b4 ff fc ff bc ff f4 ff          |................|
000000b0  ff cc ff d4 ff  d4 ff d4 ff fc ff cc ff          |................|
000000c0  ff 2c 00 fc ff  24 00 ec ff 14 00 cd ab  |.,...$.........|
000000d0  00 00 00 7b 22  6c 22 3a 34 2c 22 74 22  |...{"l":4,"t"|
000000e0  33 35 30 38 34  38 7d 94 41 06 00 3a 00  |:12350848}.A..:.|
000000f0  00 d2 ff 32 00  ea ff 22 00 da ff 22 00  |...2...".."...".|
00000100  00 9a 00 fa 00  3a 01 72 01 a2 01 a2 01  |.....:.r.....|
00000110  01 b2 01 3a 01  52 01 ca 00 ea 00 8a 00  |...:.R.....|
00000120  00 4a 00 1a 00  02 00 fa ff e2 ff 0a 00  |.J.....|
00000130  00 d2 ff 0a 00  ba ff 1a 00 d2 ff 0a 00  |...|
00000140  00 da ff fa ff  e2 ff fa ff f2 ff ea ff  |...|
00000150  ab 14 00 68 00  00 00 7b 22 6c 22 3a 31  |...h...{"l":1|
00000160  74 22 3a 32 39  39 38 36 34 30 7d 94 41  |1,"t":2998640}.A|
00000170  e4 ff dc ff  04 00 d4 ff 24 00 0c 00  |.....$...|
00000180  00 c4 00 d4 00  4c 01 64 01 d4 01 14 02  |.....L.d....|
00000190  02 84 02 8c 02  64 02 4c 02 ec 01 d4 01  |.....d.L.....|
000001a0  01 a4 00 9c 00  34 00 5c 00 04 00 14 00  |.....4.\.....|
000001b0  ff dc ff cc ff  cc ff bc ff ec ff bc ff  |...|
000001c0  ff 04 00 d4 ff  1c 00 dc ff 04 00 cc ff  |...|
000001d0  ff 04 00 cd ab  13 00 68 00 00 00 7b 22  |.....h...{"|
000001e0  38 2c 22 74 22  3a 39 38 30 32 37 35 36  |8,"t":9802756|
000001f0  06 00 2a 00 f2  ff 4a 00 3a 00 92 00 92  |..*...J.:.....|
00000200  e2 00 1a 01 32  01 4a 01 82 01 6a 01 ca  |....2.J...j..|
00000210  e2 01 a2 01 b2  01 4a 01 5a 01 f2 00 f2  |......J.Z.....|
00000220  8a 00 6a 00 52  00 52 00 32 00 2a 00 0a  |..j.R.R.2.*...|
00000230  fa ff 12 00 e2  ff 12 00 e2 ff 12 00 ea  |...|
00000240  fa ff 22 00 0a  00 fa ff fa ff f2 ff 0a  |..".....|
00000250  0a 00 e2 ff 22  00 cd ab 14 00 68 00 00  |....".....h..|
00000260  6c 22 3a 32 2c  22 74 22 3a 31 33 36 38  |l":2,"t":1368|
00000270  36 7d 94 41 06  00 eb ff 2b 00 e3 ff 1b  |6}.A....+....|
00000280  00 00 03 00 13  00 33 00 63 00 9b 00 c3  |......3.c....|
00000290  00 33 01 43 01 c3 01 f3  01 53 02 4b 02 73 02 2b  |.3.C.....S.K.s.+|
000002a0  02 13 02 ab 01 83 01 1b  01 db 00 a3 00 5b 00 4b  |.....[.K|
000002b0  00 23 00 2b 00 e3 ff 13  00 db ff 0b 00 c3 ff fb  |.#.+....|
000002c0  ff bb ff eb ff d3 ff 0b  00 f3 ff fb ff 03 00 fb  |...|
000002d0  ff 1b 00 03 00 2b 00 f3  ff 2b 00 fb ff cd ab 13  |.....+...+.....|
000002e0  00 68 00 00 00 7b 22 6c  22 3a 35 2c 22 74 22 3a  |.h...{"l":5,"t":|
000002f0  33 31 34 32 36 39 38 7d  94 41 06 00 1b 00 e3 ff  |3142698}.A......|
00000300  0b 00 e3 ff 03 00 03 00  0b 00 43 00 33 00 73 00  |..........C.3.s.|
00000310  5b 00 cb 00 bb 00 53 01  43 01 c3 01 bb 01 03 02  |[.....S.C.......|
faster@faster-dev-1:~/DEV/FASTER_TRUNK/faster3/faster3-0/tests/fastbuffer$
```

FASTER3 → Online demo

DEMO n°3 → pfasterac

```
pip install git+https://gitlab.in2p3.fr/cfontbonne/pfasterac.git
```

Notes

For type specifications, refer to type_alias_info() documentation

See also

`pfasterac.sort_by_time`

Examples

```
>>> import shutil
>>> from pathlib import Path
>>> import pfasterac as pf
>>>
>>> filename = pf.get_data_path('GROUP')
>>> data = pf.load_by_time(filename)
>>> data_by_label = pf.sort_by_label(data)
>>> keys = list(data_by_label.keys())
>>> print (keys)
[(1, 141), (2, 141), (3, 141), (4, 141), (7, 84), (8, 84), (3099, 10)]
>>>
>>> print (data_by_label[keys[0]])
shape: (73, 9)
...
>>> # clean data
>>> tp = Path(filename).parent
>>> if tp.exists(): shutil.rmtree(tp)
>>>
```

```
sort_by_time(data)
```

Sorts data loaded by pfasterac's load_by_* functions by time.

- clean_empty_columns()
- data_type()
- decimate()
- decrypt()
- events_by_time()
- gated_sum()
- get_bidim()
- get_clock_range()
- get_data_path()
- group()
- inspect()
- load_by_label()
- load_by_time()
- merge()
- quick_view()
- setup_logging()
- sort_by_label()
- sort_by_time()
- split_by_group()
- split_by_label()
- split_by_time()
- type_alias_info()
- type_name_info()

```
Successfully installed pfasterac-1.0.1
(venv) etasse@Precision:~/DEV/PFASTERAC$ python3
Python 3.12.3 (main, Mar  3 2026, 12:15:18) [GCC 13.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import pfasterac
pfasterac 1.0.1
Documentation: pfasterac.open_manual()
>>> pfasterac.open_manual()
>>> import shutil
>>> from pathlib import Path
>>> import pfasterac as pf
>>> filename = pf.get_data_path('GROUP')
>>> data = pf.load_by_time(filename)
>>> data_by_label = pf.sort_by_label(data)
>>> keys = list(data_by_label.keys())
>>> print (keys)
[(1, 141), (2, 141), (3, 141), (4, 141), (7, 84), (8, 84), (3099, 10)]
>>> print (data_by_label[keys[0]])
shape: (73, 9)
```

label	group_label	type_alias	type_name	…	group_clock	dt	sat1	Q1
u16	u16	u8	str		i64	f64	bool	i32
1	3099	141	QDC_TDC_X1	…	55453770	-1.53125	false	352616
1	3099	141	QDC_TDC_X1	…	57246414	-0.421875	true	1180632
1	3099	141	QDC_TDC_X1	…	58697762	-0.078125	false	83483
1	3099	141	QDC_TDC_X1	…	59693104	-0.21875	true	464984
1	3099	141	QDC_TDC_X1	…	62787556	-0.523438	true	812830
…	…	…	…	…	…	…	…	…
1	3099	141	QDC_TDC_X1	…	266606154	-0.4375	true	618423
1	3099	141	QDC_TDC_X1	…	267105172	-0.460938	true	989242
1	3099	141	QDC_TDC_X1	…	274775084	-1.171875	false	170075
1	3099	141	QDC_TDC_X1	…	274778178	-1.40625	false	60508
1	3099	141	QDC_TDC_X1	…	276573656	-0.960938	false	246440

```
>>> # clean data
>>> tp = Path(filename).parent
>>> if tp.exists(): shutil.rmtree(tp)
```

FASTER3 → Online demo

- DEMO n°4 → Local vs Japan

FASTER3 → Online demo

FASTER3 → 2028 Roadmap

faster23 EOL

End of Paul Zonda's contract

2027

2029

faster3 release1

MLS HYDRA-48
- Jetson AGX Orin
- 48/64 channels
- DP, USB3, 10 Gbe/s
- 100 Gbe/s (option)

CLS PEGASSUS-4
- Jetson Orin NX
- 4 channels 1.5Gs@16b
- DP, USB3, 1 Gbe/s

VIRGO-4
- 4Gsps@12bits
- 300 Mhz
- 9 ENOB

MLS PEGASSUS-32
- Jetson AGX Orin
- 32/48 channels
- DP, USB3, 10 Gbe/s
- 100 Gbe/s (option)

PEGASSUS-16 board
- 1.5Gsps@16bits
- 300 Mhz
- 11 ENOB

FASTER DAY

(2006-2008-2011-2019)

31 March 2026

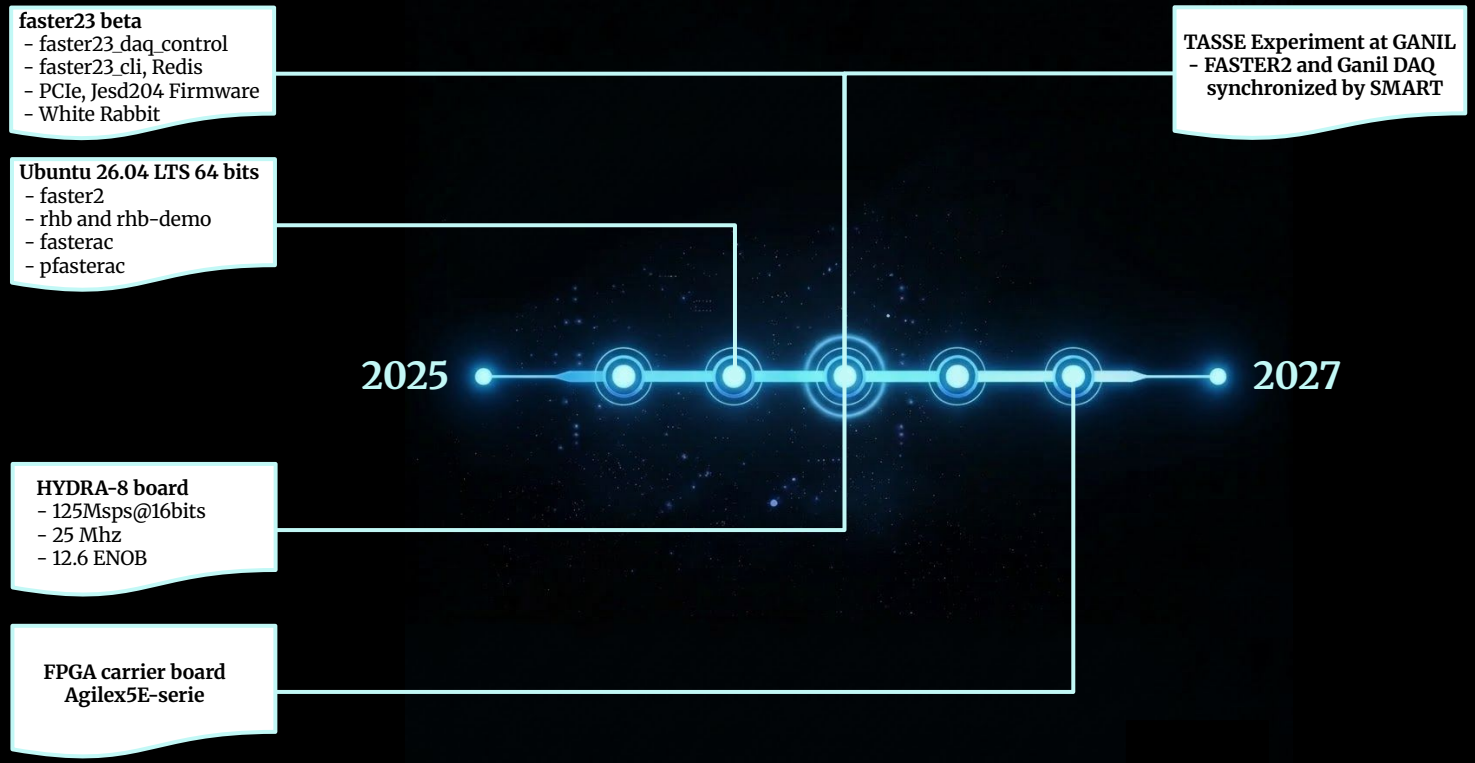
- 11:30 a.m. – Session 3 : Synchronization and control of FASTER3

  1. Sub-Nanosecond Synchronization Using the White Rabbit Protocol (Daniel Charlet IJCLab)
  2. Management and monitoring (David Etasse)
  3. Development planning and deployment (David Etasse)

- 🍴 BUFFET

- 2:00 p.m. – Session 4 → SINAPSE, the FASTER3 simulator for large-scale system

FASTER3 → 2026 Roadmap



FASTER3 → 2027 Roadmap

faster2 ubuntu package EOL

faster23 release1
- crrc4, trapez, sampler in Agilex5

CLS HYDRA-8 beta
- Jetson Orin NX
- 8 channels 125M@16b
- DP, USB3, 1 Gbe/s

HYDRA-24 board
- 125Msps@16bits
- 25 Mhz
- 12.6 ENOB

2026

2028

GRIT Daughterboard and its dedicated protocol developed by Charles Houarner@GANIL

faster3 beta

End of Thomas Carreau's contract

PEGASSUS-4 board
- 1.5Gsps@16bits
- 300 Mhz
- 11 ENOB

FPGA carrier board
Agilex5D-serie