perf file format

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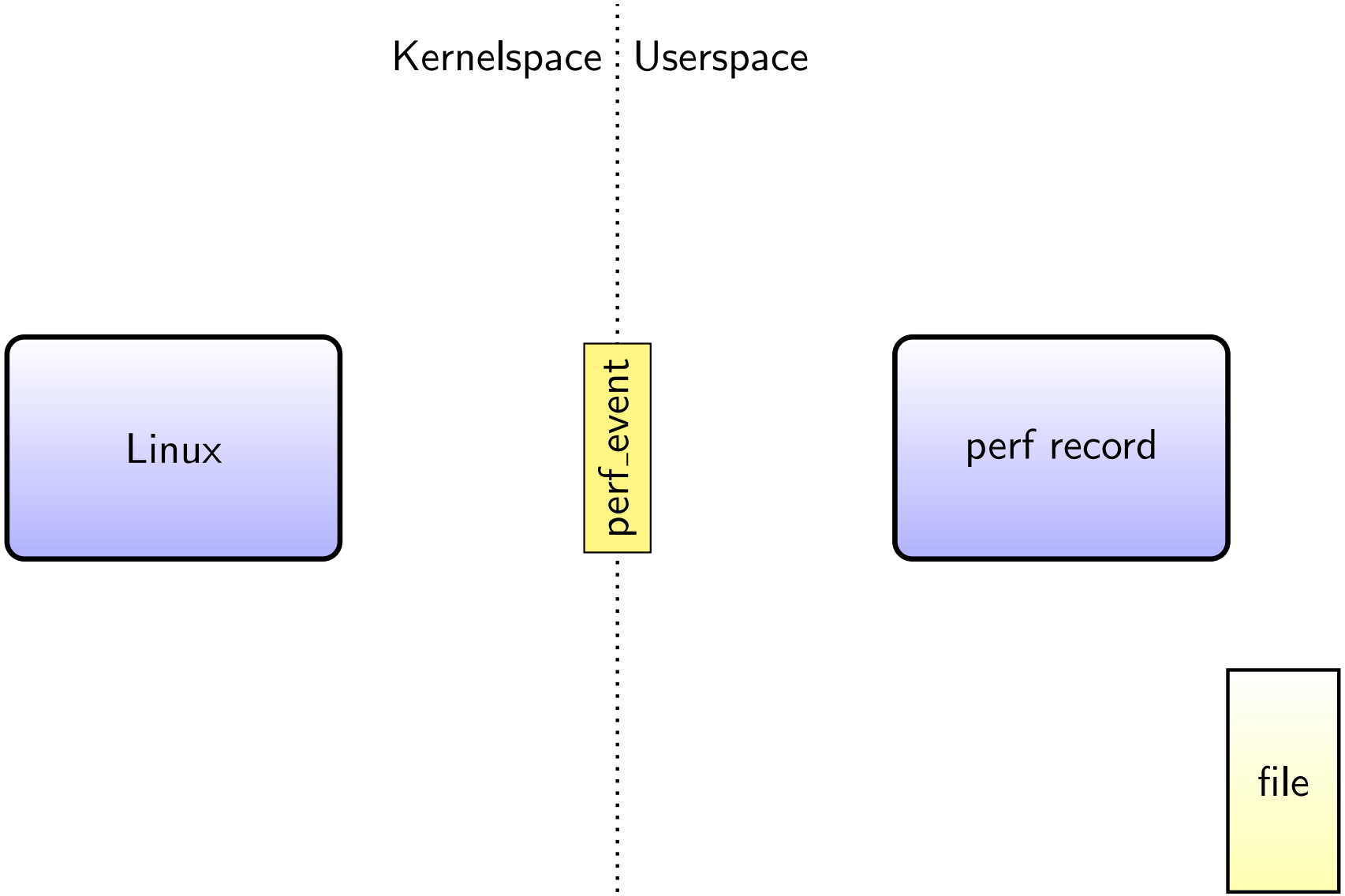
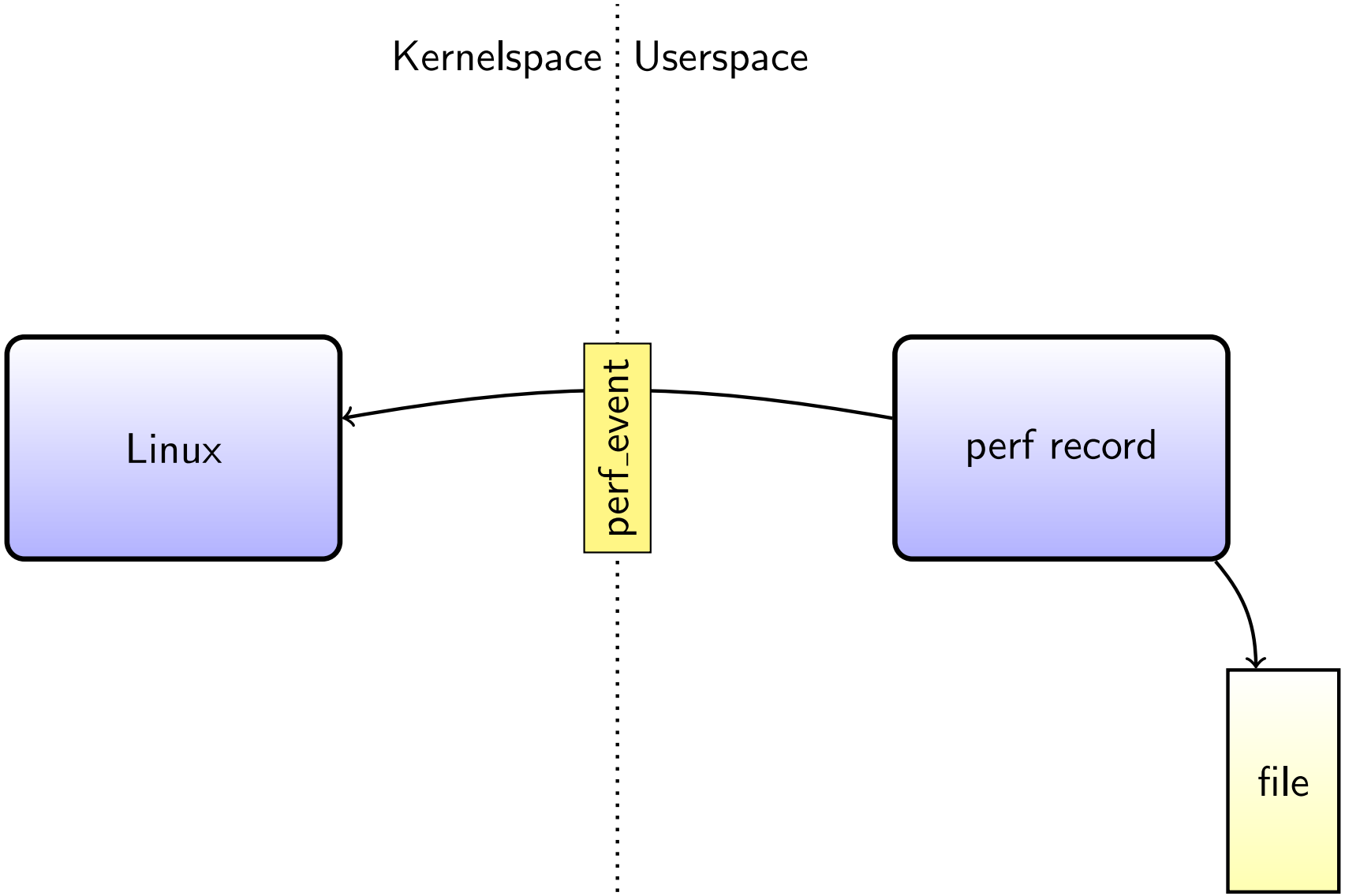
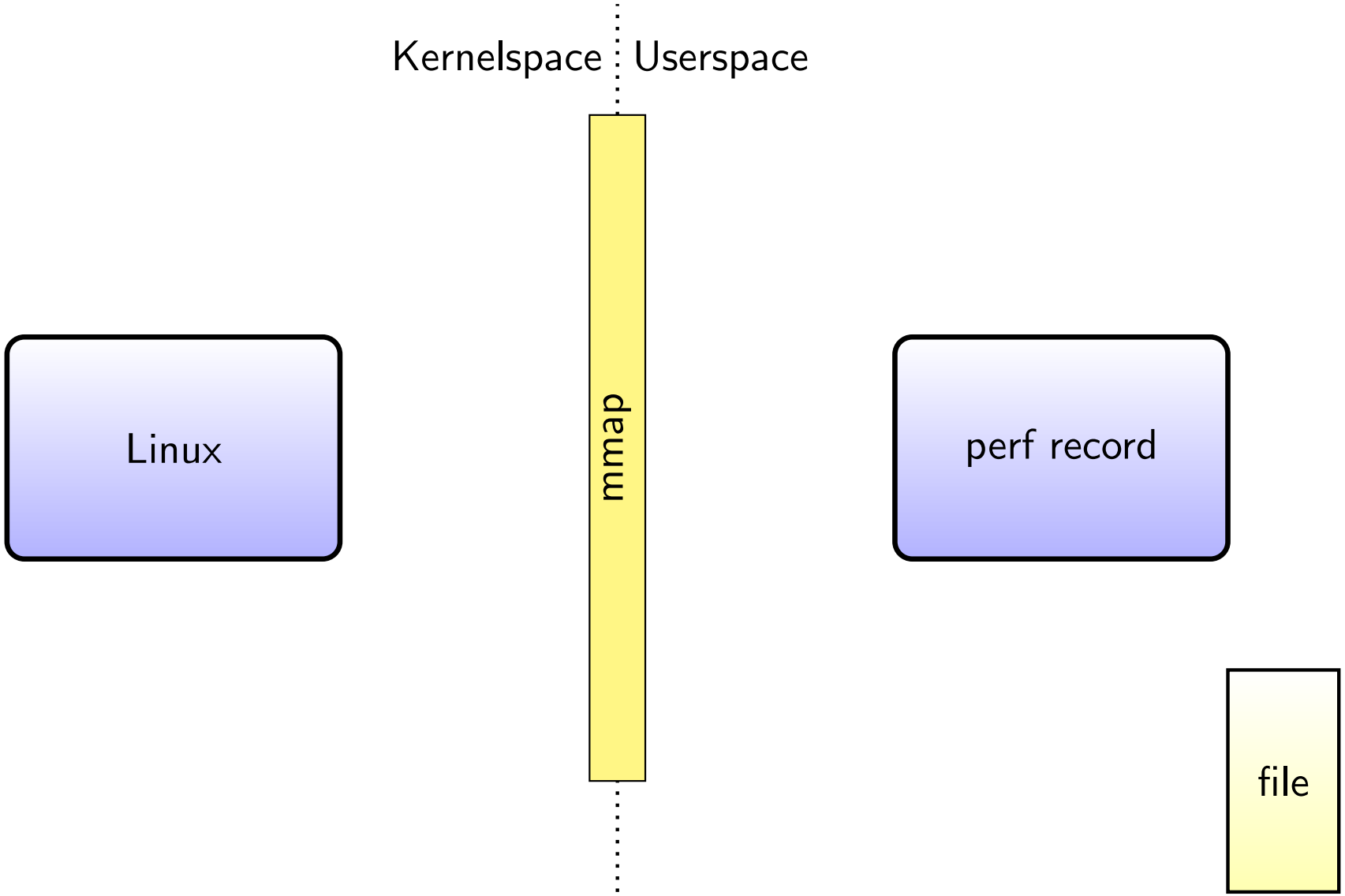
initialization



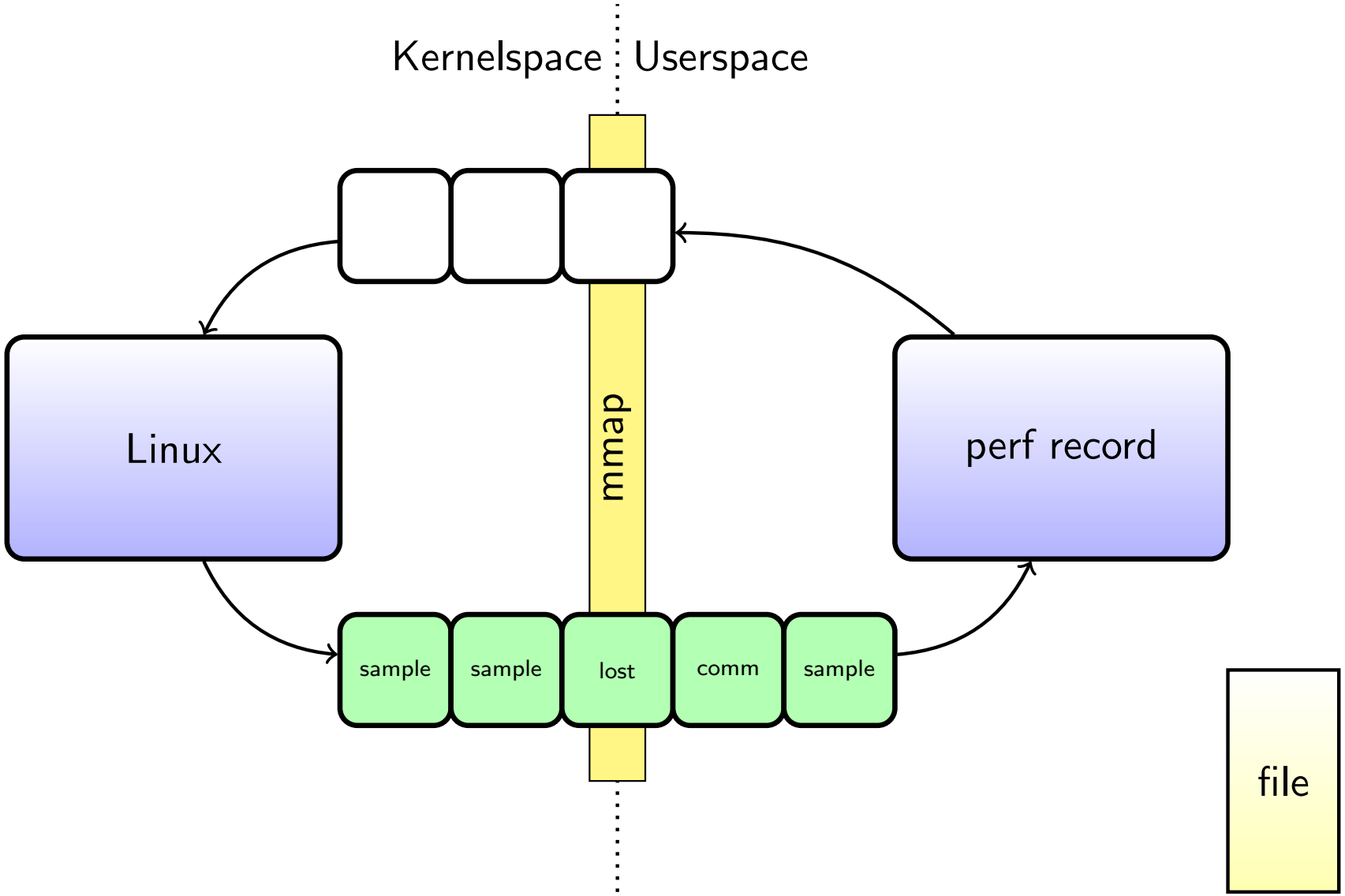
initialization



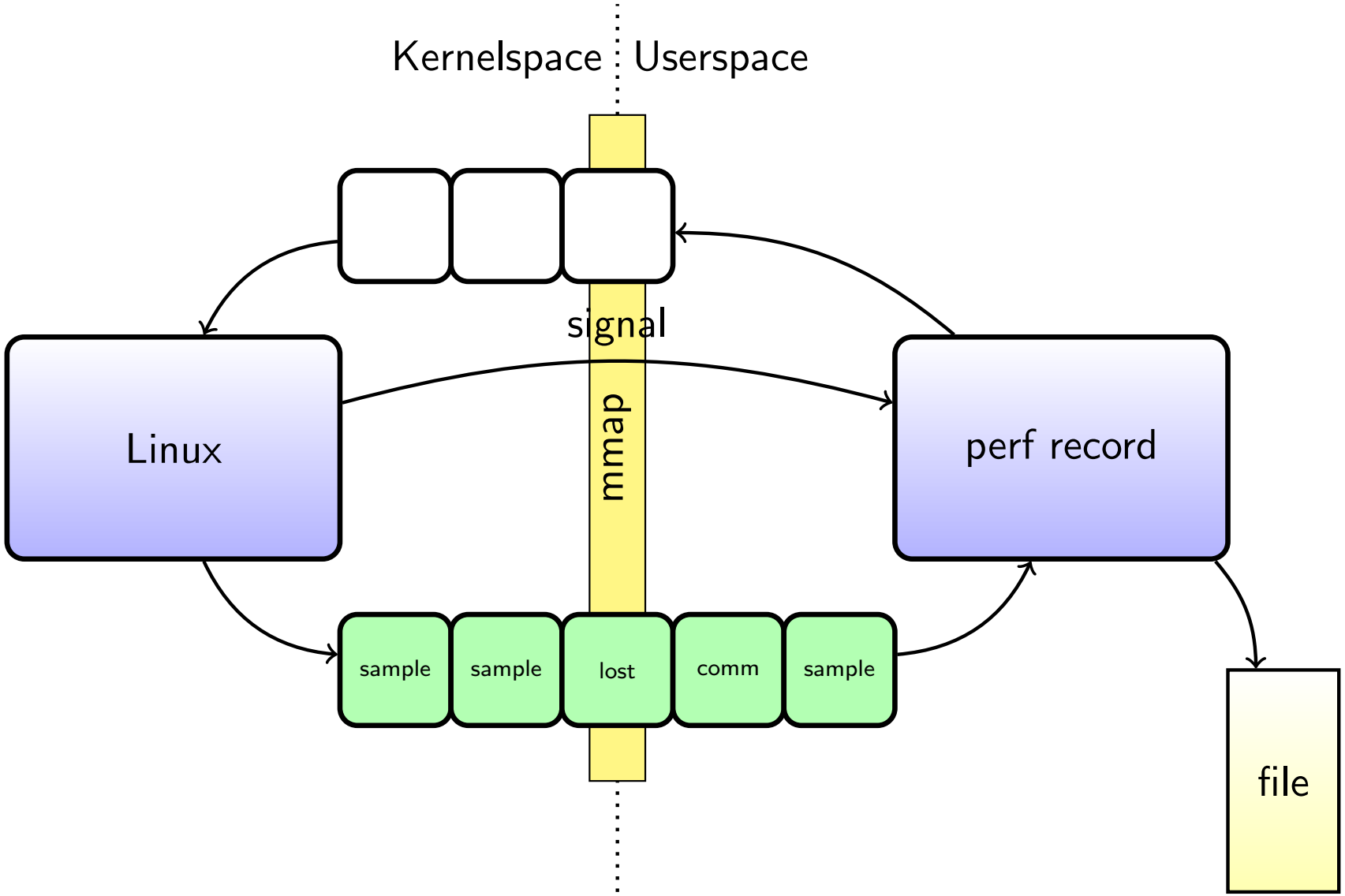
recording



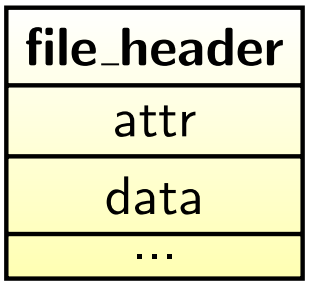
recording


Kernelspace
Userspace
Linux
mmap
perf record
sample
sample
lost
comm
sample
file

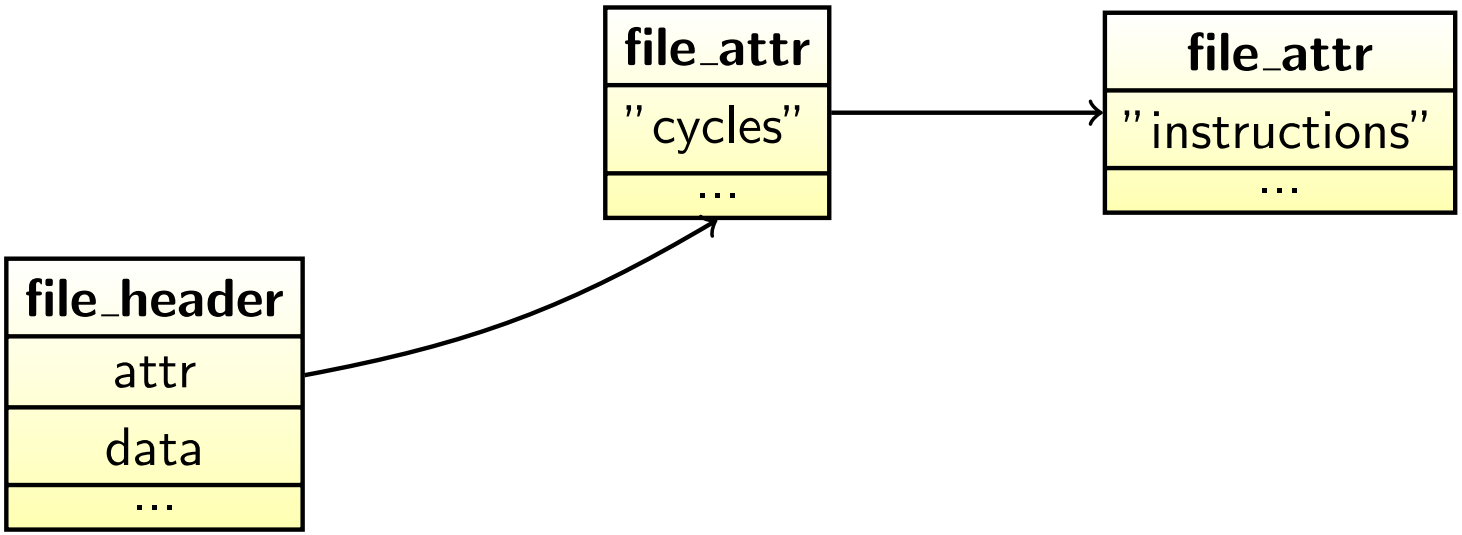
recording


Kernelspace
Userspace
signal
mmap
Linux
perf record
sample
sample
lost
comm
sample
file

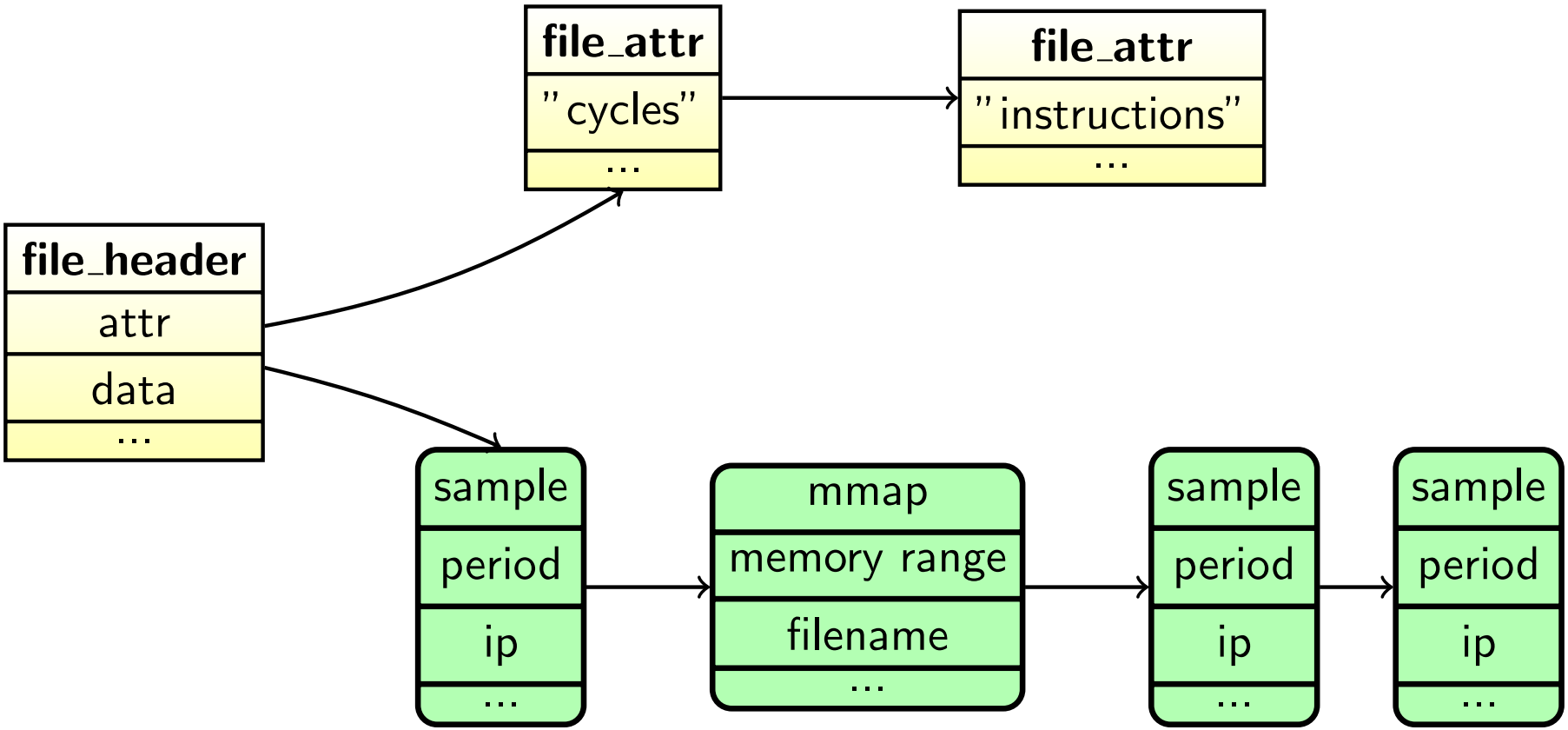
perf file format



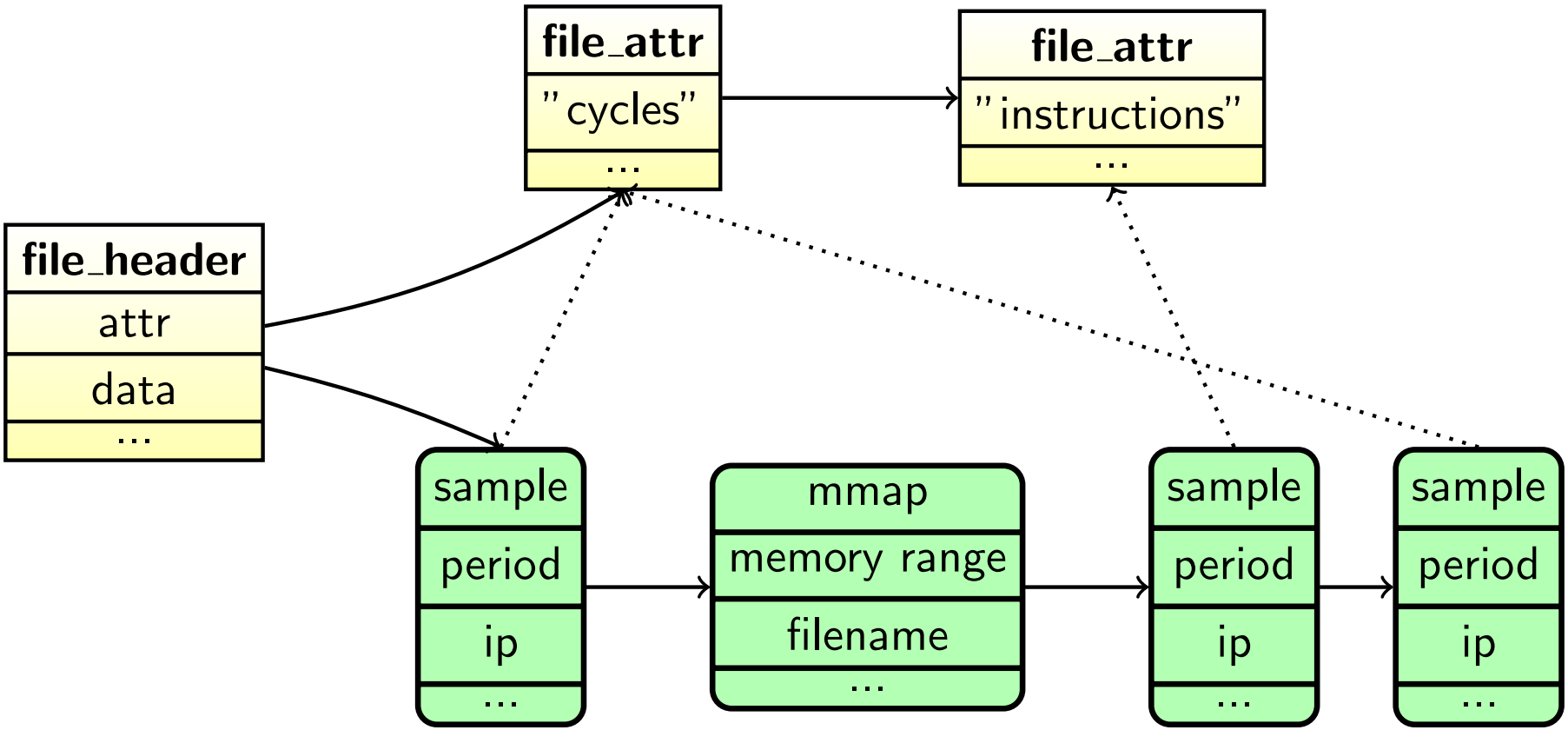
perf file format



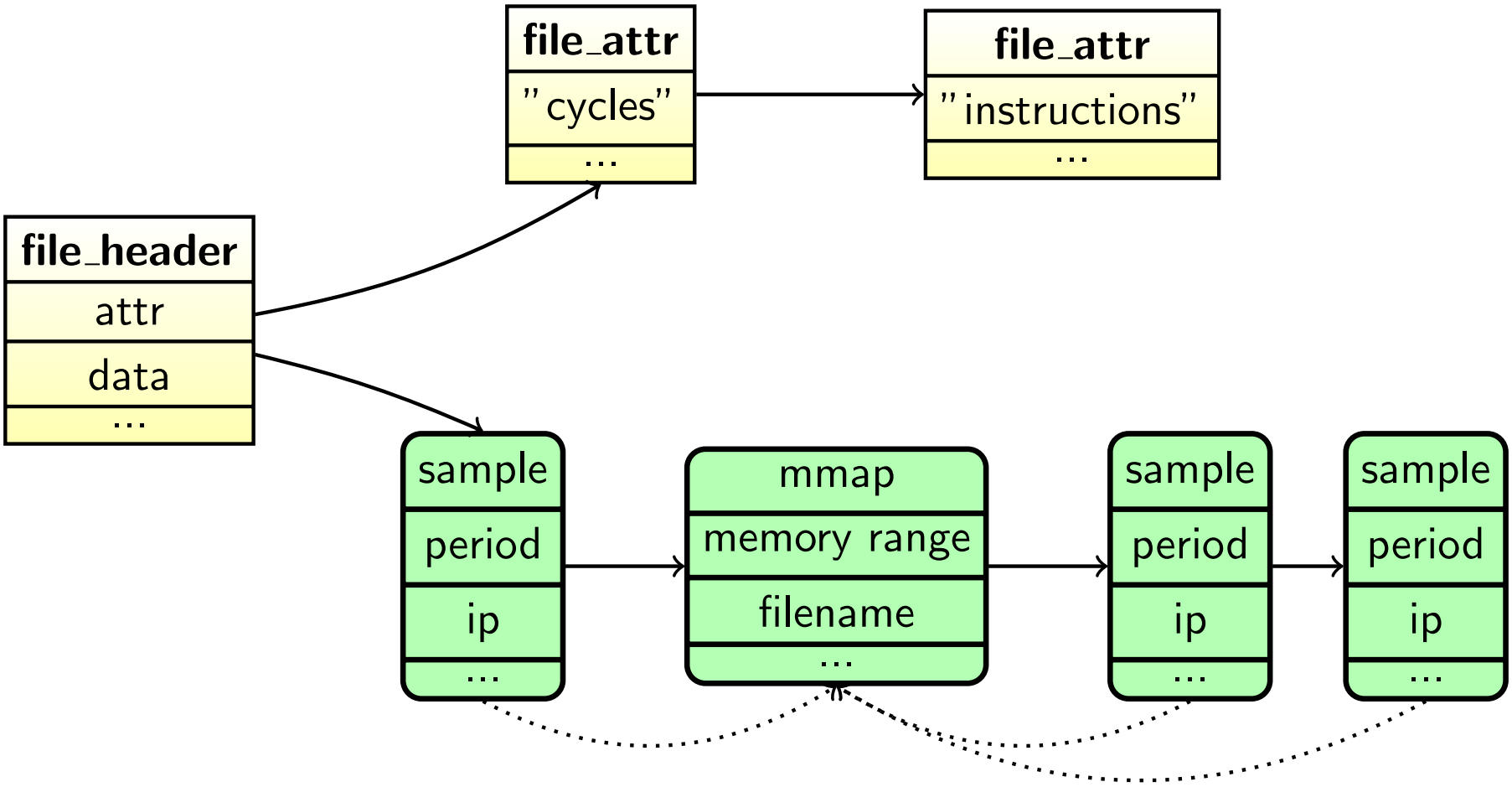
perf file format



perf file format



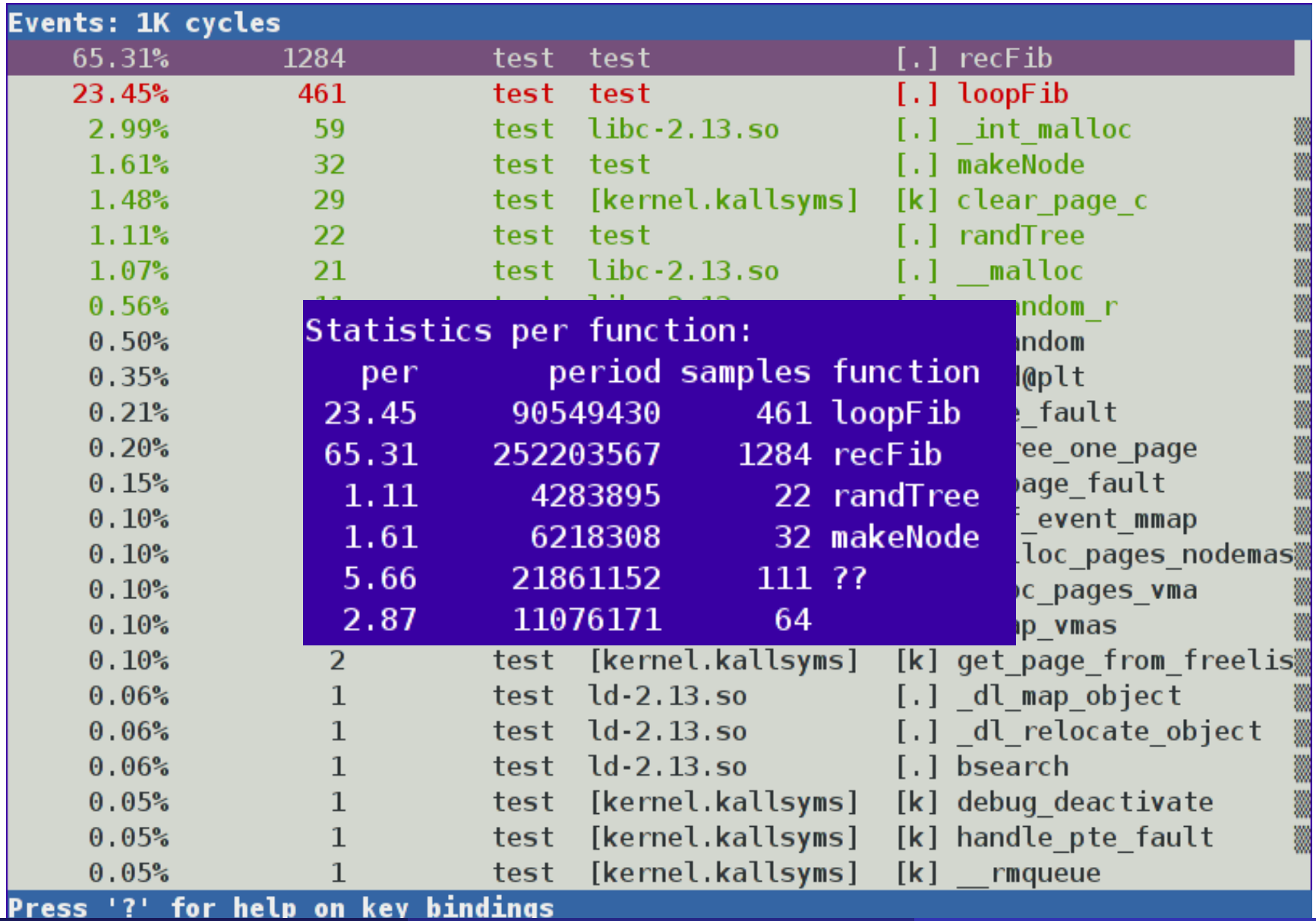
perf file format



further work

- mapping instruction pointer to library functions
- understand mapping event names $\leftrightarrow$ hex code
- understand how the address $\leftrightarrow$ filename works
- understand timestamp of sample

Demo


Events: 1K cycles
65.31% 1284 test test [.] recFib
23.45% 461 test test [.] loopFib
2.99% 59 test libc-2.13.so [.] _int_malloc
1.61% 32 test test [.] makeNode
1.48% 29 test [kernel.kallsyms] [k] clear_page_c
1.11% 22 test test [.] randTree
1.07% 21 test libc-2.13.so [.] __malloc
0.56%
0.50%
0.35%
0.21%
0.20%
0.15%
0.10%
0.10%
0.10%
0.10% 2 test [kernel.kallsyms] [k] get_page_from_freelis
0.06% 1 test ld-2.13.so [.] _dl_map_object
0.06% 1 test ld-2.13.so [.] _dl_relocate_object
0.06% 1 test ld-2.13.so [.] bsearch
0.05% 1 test [kernel.kallsyms] [k] debug_deactivate
0.05% 1 test [kernel.kallsyms] [k] handle_pte_fault
0.05% 1 test [kernel.kallsyms] [k] __rmqueue
Statistics per function:
per period samples function
23.45 90549430 461 loopFib
65.31 252203567 1284 recFib
1.11 4283895 22 randTree
1.61 6218308 32 makeNode
5.66 21861152 111 ??
2.87 11076171 64
Press '?' for help on key bindings

summary

- good understanding of file format
  - map samples to functions
  - same result as perf report
  - library and system function doesn't work entirely