Find system call table of Linux v5.15 for ARM32, RISC-V(32 bit), RISC-V(64 bit), x86(32 bit), x86_64

```
1  进入oslab1容器的linux-5.15文件夹
2  $docker start oslab1
3  $docker exec -it oslab1 bash
4  #cd have-fun-debugging
5  #cd linux-5.15
6  搜索带有syscall的文件
7  #find / -name 'syscall*' //一定要加*不然会报错
```

然后获得了以下一系列

```
1   riscv-elf/riscv64-unknown-elf/include/machine/syscall.h
2   /riscv-elf/share/gdb/syscalls
3   /riscv-glibc/sysroot/usr/include/bits/syscall.h
4   /riscv-glibc/sysroot/usr/include/syscall.h
5   /riscv-glibc/sysroot/usr/include/sys/syscall.h
6   /riscv-glibc/share/gdb/syscalls
7   /usr/lib/x86_64-linux-gnu/perl/5.30.0/bits/syscall.ph
8   /usr/lib/x86_64-linux-gnu/perl/5.30.0/sys/syscall.ph
9   /usr/lib/x86_64-linux-gnu/perl/5.30.0/syscall.ph
10  /usr/include/syscall.h
11  /usr/include/x86_64-linux-gnu/bits/syscall.h
12  /usr/include/x86_64-linux-gnu/sys/syscall.h
13  /usr/aarch64-linux-gnu/include/bits/syscall.h
14  /usr/aarch64-linux-gnu/include/syscall.h
15  /usr/aarch64-linux-gnu/include/sys/syscall.h
16  /have-fun-debugging/linux-5.15/lib/syscall.o
17  /have-fun-debugging/linux-5.15/lib/syscall.c
18  /have-fun-debugging/linux-5.15/Documentation/userspace-api/ebpf/syscall.rst
19  /have-fun-debugging/linux-5.15/Documentation/powerpc/syscall64-abi.rst
20  /have-fun-debugging/linux-5.15/Documentation/ABI/stable/syscalls
21  /have-fun-debugging/linux-5.15/Documentation/admin-guide/syscall-user-dispatch.rst
22  /have-fun-debugging/linux-5.15/arch/arm/include/asm/syscall.h
23  /have-fun-debugging/linux-5.15/arch/arm/tools/syscall.tbl
24  /have-fun-debugging/linux-5.15/arch/arm/tools/syscallnr.sh
25  /have-fun-debugging/linux-5.15/arch/x86/include/asm/syscall.h
26  /have-fun-debugging/linux-5.15/arch/x86/include/asm/syscalls.h
27  /have-fun-debugging/linux-5.15/arch/x86/include/asm/syscall_wrapper.h
28  /have-fun-debugging/linux-5.15/arch/x86/um/syscalls_64.c
29  /have-fun-debugging/linux-5.15/arch/x86/um/asm/syscall.h
30  /have-fun-debugging/linux-5.15/arch/x86/um/shared/sysdep/syscalls.h
31  /have-fun-debugging/linux-5.15/arch/x86/um/shared/sysdep/syscalls_64.h
32  /have-fun-debugging/linux-5.15/arch/x86/um/shared/sysdep/syscalls_32.h
33  /have-fun-debugging/linux-5.15/arch/x86/um/syscalls_32.c
34  /have-fun-debugging/linux-5.15/arch/x86/entry/syscalls
35  /have-fun-debugging/linux-5.15/arch/x86/entry/syscalls/syscall_32.tbl
36  /have-fun-debugging/linux-5.15/arch/x86/entry/syscalls/syscall_64.tbl
37  /have-fun-debugging/linux-5.15/arch/x86/entry/syscall_64.c
38  /have-fun-debugging/linux-5.15/arch/x86/entry/syscall_x32.c
39  /have-fun-debugging/linux-5.15/arch/x86/entry/syscall_32.c
40  /have-fun-debugging/linux-5.15/arch/arc/include/asm/syscall.h
41  /have-fun-debugging/linux-5.15/arch/arc/include/asm/syscalls.h
42  /have-fun-debugging/linux-5.15/arch/openrisc/include/asm/syscall.h
43  /have-fun-debugging/linux-5.15/arch/openrisc/include/asm/syscalls.h
44  /have-fun-debugging/linux-5.15/arch/mips/include/asm/syscall.h
45  /have-fun-debugging/linux-5.15/arch/mips/kernel/syscalls
```

```
 46   /have-fun-debugging/linux-5.15/arch/mips/kernel/syscalls/syscall_n64.tbl
 47   /have-fun-debugging/linux-5.15/arch/mips/kernel/syscalls/syscall_n32.tbl
 48   /have-fun-debugging/linux-5.15/arch/mips/kernel/syscalls/syscallnr.sh
 49   /have-fun-debugging/linux-5.15/arch/mips/kernel/syscalls/syscall_o32.tbl
 50   /have-fun-debugging/linux-5.15/arch/mips/kernel/syscall.c
 51   /have-fun-debugging/linux-5.15/arch/hexagon/include/asm/syscall.h
 52   /have-fun-debugging/linux-5.15/arch/hexagon/kernel/syscalltab.c
 53   /have-fun-debugging/linux-5.15/arch/riscv/include/asm/syscall.h
 54   /have-fun-debugging/linux-5.15/arch/riscv/kernel/syscall_table.c
 55   /have-fun-debugging/linux-5.15/arch/powerpc/include/asm/syscall.h
 56   /have-fun-debugging/linux-5.15/arch/powerpc/include/asm/syscalls.h
 57   /have-fun-debugging/linux-5.15/arch/powerpc/kernel/syscalls
 58   /have-fun-debugging/linux-5.15/arch/powerpc/kernel/syscalls/syscall.tbl
 59   /have-fun-debugging/linux-5.15/arch/powerpc/kernel/syscalls.c
 60   /have-fun-debugging/linux-5.15/arch/powerpc/platforms/cell/spufs/syscalls.c
 61   /have-fun-debugging/linux-5.15/arch/nios2/include/asm/syscall.h
 62   /have-fun-debugging/linux-5.15/arch/nios2/include/asm/syscalls.h
 63   /have-fun-debugging/linux-5.15/arch/nios2/kernel/syscall_table.c
 64   /have-fun-debugging/linux-5.15/arch/h8300/include/asm/syscall.h
 65   /have-fun-debugging/linux-5.15/arch/h8300/kernel/syscalls.c
 66   /have-fun-debugging/linux-5.15/arch/um/include/asm/syscall-generic.h
 67   /have-fun-debugging/linux-5.15/arch/um/kernel/skas/syscall.c
 68   /have-fun-debugging/linux-5.15/arch/um/kernel/syscall.c
 69   /have-fun-debugging/linux-5.15/arch/ia64/include/asm/syscall.h
 70   /have-fun-debugging/linux-5.15/arch/ia64/kernel/syscalls
 71   /have-fun-debugging/linux-5.15/arch/ia64/kernel/syscalls/syscall.tbl
 72   /have-fun-debugging/linux-5.15/arch/csky/include/asm/syscall.h
 73   /have-fun-debugging/linux-5.15/arch/csky/include/asm/syscalls.h
 74   /have-fun-debugging/linux-5.15/arch/csky/kernel/syscall_table.c
 75   /have-fun-debugging/linux-5.15/arch/csky/kernel/syscall.c
 76   /have-fun-debugging/linux-5.15/arch/arm64/include/asm/syscall.h
 77   /have-fun-debugging/linux-5.15/arch/arm64/include/asm/syscall_wrapper.h
 78   /have-fun-debugging/linux-5.15/arch/arm64/kernel/syscall.o
 79   /have-fun-debugging/linux-5.15/arch/arm64/kernel/syscall.c
 80   /have-fun-debugging/linux-5.15/arch/m68k/include/asm/syscall.h
 81   /have-fun-debugging/linux-5.15/arch/m68k/kernel/syscalls
 82   /have-fun-debugging/linux-5.15/arch/m68k/kernel/syscalls/syscall.tbl
 83   /have-fun-debugging/linux-5.15/arch/m68k/kernel/syscalltable.S
 84   /have-fun-debugging/linux-5.15/arch/s390/include/asm/syscall.h
 85   /have-fun-debugging/linux-5.15/arch/s390/include/asm/syscall_wrapper.h
 86   /have-fun-debugging/linux-5.15/arch/s390/kernel/syscalls
 87   /have-fun-debugging/linux-5.15/arch/s390/kernel/syscalls/syscall.tbl
 88   /have-fun-debugging/linux-5.15/arch/s390/kernel/syscalls/syscalltbl
 89   /have-fun-debugging/linux-5.15/arch/s390/kernel/syscall.c
 90   /have-fun-debugging/linux-5.15/arch/sh/include/asm/syscall.h
 91   /have-fun-debugging/linux-5.15/arch/sh/include/asm/syscall_32.h
 92   /have-fun-debugging/linux-5.15/arch/sh/include/asm/syscalls.h
 93   /have-fun-debugging/linux-5.15/arch/sh/include/asm/syscalls_32.h
 94   /have-fun-debugging/linux-5.15/arch/sh/kernel/syscalls_32.S
 95   /have-fun-debugging/linux-5.15/arch/sh/kernel/syscalls
 96   /have-fun-debugging/linux-5.15/arch/sh/kernel/syscalls/syscall.tbl
 97   /have-fun-debugging/linux-5.15/arch/microblaze/include/asm/syscall.h
 98   /have-fun-debugging/linux-5.15/arch/microblaze/kernel/syscall_table.S
 99   /have-fun-debugging/linux-5.15/arch/microblaze/kernel/syscalls
100   /have-fun-debugging/linux-5.15/arch/microblaze/kernel/syscalls/syscall.tbl
101   /have-fun-debugging/linux-5.15/arch/sparc/include/asm/syscall.h
102   /have-fun-debugging/linux-5.15/arch/sparc/include/asm/syscalls.h
103   /have-fun-debugging/linux-5.15/arch/sparc/kernel/syscalls
104   /have-fun-debugging/linux-5.15/arch/sparc/kernel/syscalls/syscall.tbl
105   /have-fun-debugging/linux-5.15/arch/sparc/kernel/syscalls.S
106   /have-fun-debugging/linux-5.15/arch/alpha/include/asm/syscall.h
```

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107  /have-fun-debugging/linux-5.15/arch/alpha/kernel/syscalls
108  /have-fun-debugging/linux-5.15/arch/alpha/kernel/syscalls/syscall.tbl
109  /have-fun-debugging/linux-5.15/arch/parisc/include/asm/syscall.h
110  /have-fun-debugging/linux-5.15/arch/parisc/kernel/syscalls
111  /have-fun-debugging/linux-5.15/arch/parisc/kernel/syscalls/syscall.tbl
112  /have-fun-debugging/linux-5.15/arch/parisc/kernel/syscall.S
113  /have-fun-debugging/linux-5.15/arch/nds32/include/asm/syscall.h
114  /have-fun-debugging/linux-5.15/arch/nds32/include/asm/syscalls.h
115  /have-fun-debugging/linux-5.15/arch/nds32/kernel/syscall_table.c
116  /have-fun-debugging/linux-5.15/arch/xtensa/include/asm/syscall.h
117  /have-fun-debugging/linux-5.15/arch/xtensa/kernel/syscalls
118  /have-fun-debugging/linux-5.15/arch/xtensa/kernel/syscalls/syscall.tbl
119  /have-fun-debugging/linux-5.15/arch/xtensa/kernel/syscall.c
120  /have-fun-debugging/linux-5.15/include/trace/syscall.h
121  /have-fun-debugging/linux-5.15/include/trace/events/syscalls.h
122  /have-fun-debugging/linux-5.15/include/linux/syscalls.h
123  /have-fun-debugging/linux-5.15/include/linux/syscall_user_dispatch.h
124  /have-fun-debugging/linux-5.15/include/asm-generic/syscall.h
125  /have-fun-debugging/linux-5.15/include/asm-generic/syscalls.h
126  /have-fun-debugging/linux-5.15/security/landlock/syscalls.c
127  /have-fun-debugging/linux-5.15/ipc/syscall.o
128  /have-fun-debugging/linux-5.15/ipc/syscall.c
129  /have-fun-debugging/linux-5.15/kernel/bpf/syscall.c
130  /have-fun-debugging/linux-5.15/kernel/entry/syscall_user_dispatch.c
131  /have-fun-debugging/linux-5.15/drivers/pci/syscall.o
132  /have-fun-debugging/linux-5.15/drivers/pci/syscall.c
133  /have-fun-debugging/linux-5.15/scripts/syscallnr.sh
134  /have-fun-debugging/linux-5.15/scripts/syscallhdr.sh
135  /have-fun-debugging/linux-5.15/scripts/syscalltbl.sh
136  /have-fun-debugging/linux-5.15/samples/bpf/syscall_nrs.c
137  /have-fun-debugging/linux-5.15/samples/bpf/syscall_tp_user.c
138  /have-fun-debugging/linux-5.15/samples/bpf/syscall_tp_kern.c
139  /have-fun-debugging/linux-5.15/tools/perf/util/syscalltbl.c
140  /have-fun-debugging/linux-5.15/tools/perf/util/syscalltbl.h
141  /have-fun-debugging/linux-5.15/tools/perf/arch/x86/entry/syscalls
142  /have-fun-debugging/linux-5.15/tools/perf/arch/x86/entry/syscalls/syscall_64.tbl
143  /have-fun-debugging/linux-5.15/tools/perf/arch/x86/entry/syscalls/syscalltbl.sh
144  /have-fun-debugging/linux-5.15/tools/perf/arch/mips/entry/syscalls
145  /have-fun-debugging/linux-5.15/tools/perf/arch/mips/entry/syscalls/syscall_n64.tbl
146  /have-fun-debugging/linux-5.15/tools/perf/arch/powerpc/entry/syscalls
147  /have-fun-debugging/linux-5.15/tools/perf/arch/powerpc/entry/syscalls/syscall.tbl
148  /have-fun-debugging/linux-5.15/tools/perf/arch/arm64/entry/syscalls
149  /have-fun-debugging/linux-5.15/tools/perf/arch/s390/entry/syscalls
150  /have-fun-debugging/linux-5.15/tools/perf/arch/s390/entry/syscalls/syscall.tbl
151  /have-fun-debugging/linux-5.15/tools/perf/bench/syscall.c
152  /have-fun-debugging/linux-5.15/tools/perf/scripts/python/bin/syscall-counts-record
153  /have-fun-debugging/linux-5.15/tools/perf/scripts/python/bin/syscall-counts-by-pid-report
154  /have-fun-debugging/linux-5.15/tools/perf/scripts/python/bin/syscall-counts-report
155  /have-fun-debugging/linux-5.15/tools/perf/scripts/python/bin/syscall-counts-by-pid-record
156  /have-fun-debugging/linux-5.15/tools/perf/scripts/python/syscall-counts-by-pid.py
157  /have-fun-debugging/linux-5.15/tools/perf/scripts/python/syscall-counts.py
158  /have-fun-debugging/linux-5.15/tools/testing/selftests/bpf/progs/syscall.c
159  /have-fun-debugging/linux-5.15/tools/testing/selftests/bpf/prog_tests/syscall.c
160  /have-fun-debugging/linux-5.15/tools/testing/selftests/x86/syscall_nt.c
161  /have-fun-debugging/linux-5.15/tools/testing/selftests/x86/syscall_numbering.c
162  /have-fun-debugging/linux-5.15/tools/testing/selftests/x86/syscall_arg_fault.c
163  /have-fun-debugging/linux-5.15/tools/testing/selftests/powerpc/syscalls
164  /have-fun-debugging/linux-5.15/tools/testing/selftests/arm64/bti/syscall.S
165  /have-fun-debugging/linux-5.15/tools/testing/selftests/syscall_user_dispatch
166  /have-fun-debugging/linux-5.15/tools/io_uring/syscall.c
```

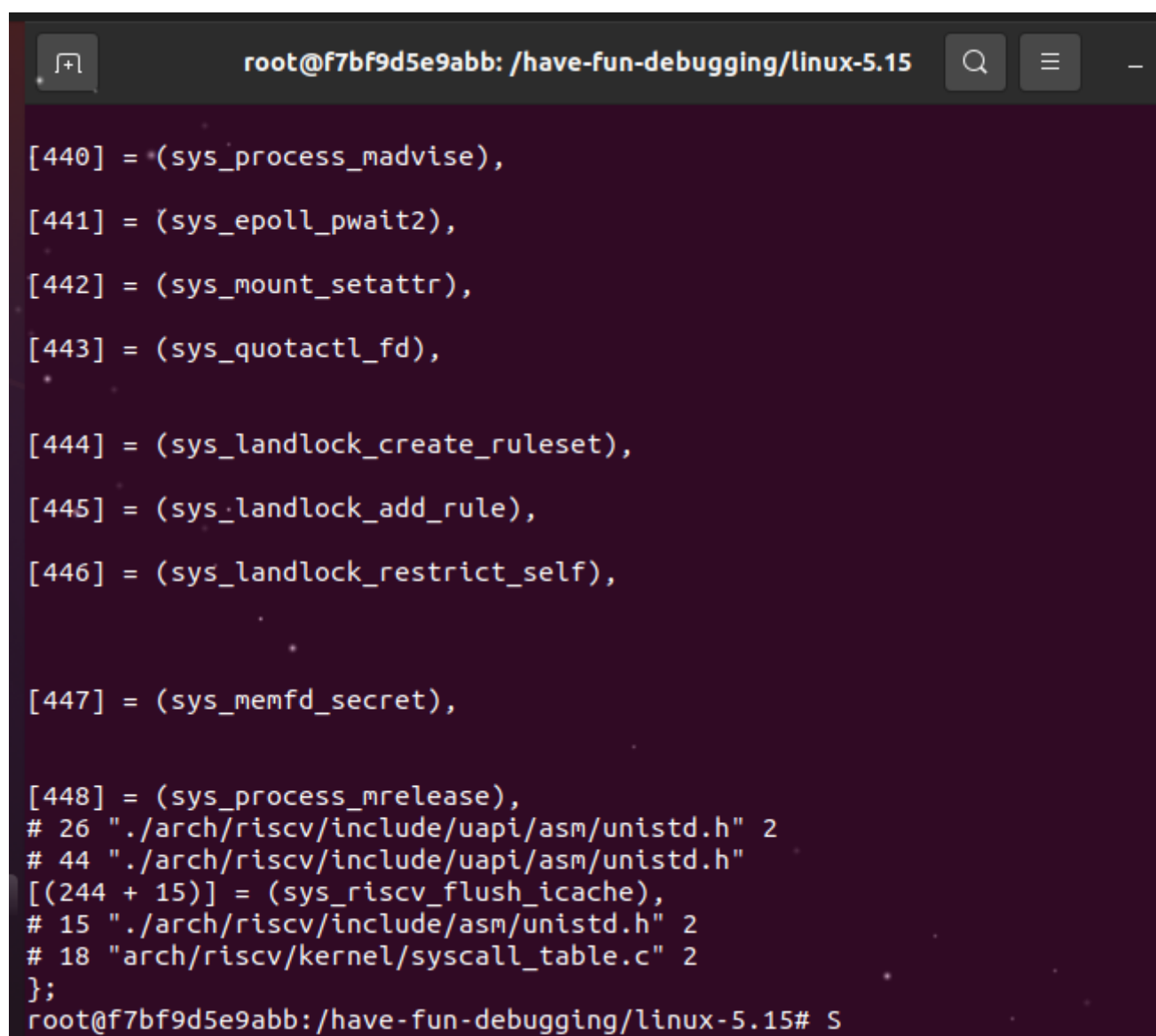里面找到了那么几个有用的 ARM32, RISC-V(32 bit), RISC-V(64 bit), x86(32 bit), x86_64

- /have-fun-debugging/linux-5.15/arch/riscv/kernel/syscall_table.c
- /have-fun-debugging/linux-5.15/arch/x86/entry/syscalls/syscall_64.tbl
- /have-fun-debugging/linux-5.15/arch/x86/entry/syscalls/syscall_32.tbl
- /have-fun-debugging/linux-5.15/arch/arm/tools/syscall.tbl

```
1  #cat arch/x86/entry/syscalls/syscall_64.tbl
2  可直接在terminal里查看tbl文件，下面三个都可以这样看到system call table
```

riscv的

```
1  #make ARCH=riscv CROSS_COMPILE=riscv64-unknown-linux-gnu- arch/riscv/kernel/syscall_table.i -
   j$(nproc)
2  这里要注意中间是.i不是.c，中间是目标文件
```

然后就能看到有一个数组存着system call table了