

Homework 3

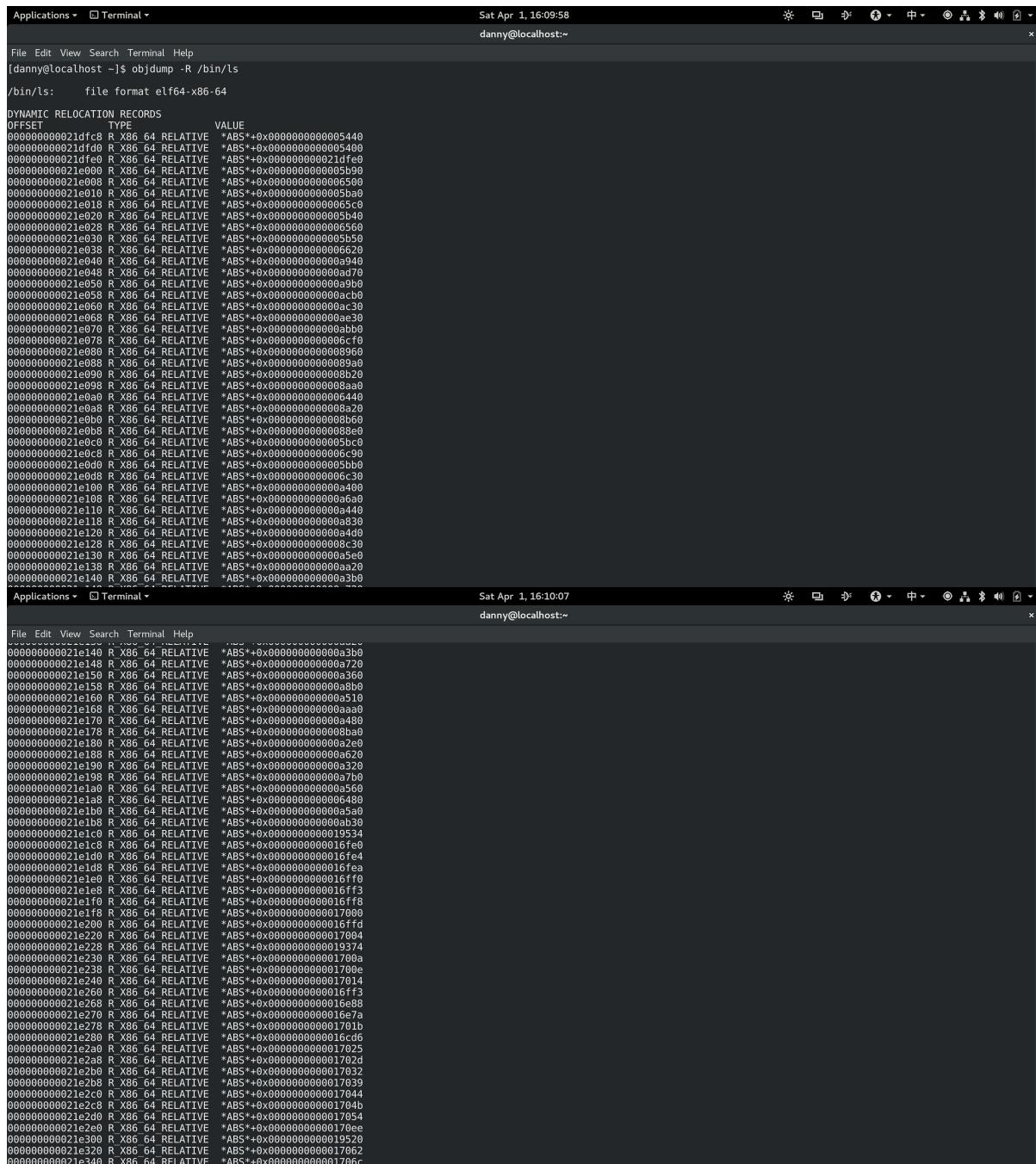
1. System Call in `ls`

```
[danny@localhost ~]$ strace -c ./ls
Desktop                               kaggle  Pictures    ubike.sh
Documents                            ls      power.html Videos
Downloads                            MEGA    Public     xframetest.html
input.html                           Music   Templates
intellinuxgraphics-repo.noarch.rpm newpy  test.txt
% time    seconds  usecs/call   calls  errors syscall
----- -----
19.28  0.000140       7        20      mmap
16.25  0.000118       8        14      mprotect
16.12  0.000117      59        2      statfs
 8.26  0.000060       7        9      open
 7.85  0.000057      29        2      getdents
 5.92  0.000043       4       10      fstat
 5.79  0.000042       8        5      write
 5.79  0.000042       4       11      close
 3.03  0.000022      22        1      munmap
 2.89  0.000021       4        6      read
 1.79  0.000013       4        3      brk
 1.79  0.000013      7        2      ioctl
 1.24  0.000009       5        2      1 access
 1.10  0.000008       4        2      rt_sigaction
 0.69  0.000005       5        1      arch_prctl
 0.55  0.000004       4        1      rt_sigprocmask
 0.55  0.000004       4        1      getrlimit
 0.55  0.000004       4        1      set_tid_address
 0.55  0.000004       4        1      set_robust_list
 0.00  0.000000       0        1      execve
-----
100.00  0.000726          95      1 total
[danny@localhost ~]$
```

2. Remove symbol table from an executable

```
[danny@localhost ch03]$ gcc table.c
[danny@localhost ch03]$ ls -la | grep a.out
-rwxrwxr-x. 1 danny danny 8848 Apr  1 16:18 a.out
[danny@localhost ch03]$ strip ./a.out
[danny@localhost ch03]$ ls -la | grep a.out
-rwxrwxr-x. 1 danny danny 6280 Apr  1 16:18 a.out
[danny@localhost ch03]$
```

3. Find libraries used by `ls` with `objdump`



```
File Edit View Search Terminal Help
[ls@localhost ~]$ objdump -R /bin/ls
/bin/ls:      file format elf64-x86-64

DYNAMIC RELOCATION RECORDS
OFFSET           TYPE       VALUE
00000000000021dfe3 R_X86_64 RELATIVE    *ABS*+0x00000000000005440
00000000000021dfe0 R_X86_64 RELATIVE    *ABS*+0x00000000000005490
00000000000021dfe0 R_X86_64 RELATIVE    *ABS*+0x000000000000021dfc0
00000000000021e000 R_X86_64 RELATIVE    *ABS*+0x00000000000005b00
00000000000021e008 R_X86_64 RELATIVE    *ABS*+0x00000000000006500
00000000000021e010 R_X86_64 RELATIVE    *ABS*+0x00000000000005ba0
00000000000021e018 R_X86_64 RELATIVE    *ABS*+0x000000000000065c0
00000000000021e020 R_X86_64 RELATIVE    *ABS*+0x00000000000005b40
00000000000021e028 R_X86_64 RELATIVE    *ABS*+0x00000000000006560
00000000000021e030 R_X86_64 RELATIVE    *ABS*+0x00000000000005b50
00000000000021e038 R_X86_64 RELATIVE    *ABS*+0x00000000000006620
00000000000021e040 R_X86_64 RELATIVE    *ABS*+0x0000000000000940
00000000000021e048 R_X86_64 RELATIVE    *ABS*+0x0000000000000d70
00000000000021e050 R_X86_64 RELATIVE    *ABS*+0x00000000000009b0
00000000000021e058 R_X86_64 RELATIVE    *ABS*+0x0000000000000ac0
00000000000021e060 R_X86_64 RELATIVE    *ABS*+0x00000000000009a30
00000000000021e070 R_X86_64 RELATIVE    *ABS*+0x0000000000000a30
00000000000021e078 R_X86_64 RELATIVE    *ABS*+0x0000000000000c70
00000000000021e080 R_X86_64 RELATIVE    *ABS*+0x0000000000000960
00000000000021e088 R_X86_64 RELATIVE    *ABS*+0x0000000000000990
00000000000021e090 R_X86_64 RELATIVE    *ABS*+0x00000000000008b20
00000000000021e098 R_X86_64 RELATIVE    *ABS*+0x00000000000008aa0
00000000000021e0a0 R_X86_64 RELATIVE    *ABS*+0x00000000000006400
00000000000021e0a8 R_X86_64 RELATIVE    *ABS*+0x00000000000008a20
00000000000021e0b0 R_X86_64 RELATIVE    *ABS*+0x00000000000008b60
00000000000021e0b8 R_X86_64 RELATIVE    *ABS*+0x000000000000088e0
00000000000021e0c0 R_X86_64 RELATIVE    *ABS*+0x00000000000005bc0
00000000000021e0c8 R_X86_64 RELATIVE    *ABS*+0x00000000000006c90
00000000000021e0d0 R_X86_64 RELATIVE    *ABS*+0x00000000000005bb0
00000000000021e0d8 R_X86_64 RELATIVE    *ABS*+0x00000000000006c30
00000000000021e100 R_X86_64 RELATIVE    *ABS*+0x00000000000004090
00000000000021e110 R_X86_64 RELATIVE    *ABS*+0x00000000000006600
00000000000021e118 R_X86_64 RELATIVE    *ABS*+0x00000000000006400
00000000000021e118 R_X86_64 RELATIVE    *ABS*+0x00000000000008330
00000000000021e120 R_X86_64 RELATIVE    *ABS*+0x00000000000008030
00000000000021e128 R_X86_64 RELATIVE    *ABS*+0x00000000000005e00
00000000000021e130 R_X86_64 RELATIVE    *ABS*+0x00000000000005600
00000000000021e138 R_X86_64 RELATIVE    *ABS*+0x0000000000000a20
00000000000021e140 R_X86_64 RELATIVE    *ABS*+0x00000000000003b0
00000000000021e140 R_X86_64 RELATIVE    *ABS*+0x0000000000000700
File Edit View Search Terminal Help
[ls@localhost ~]$ objdump -R /bin/ls
/bin/ls:      file format elf64-x86-64

DYNAMIC RELOCATION RECORDS
OFFSET           TYPE       VALUE
00000000000021e140 R_X86_64 RELATIVE    *ABS*+0x00000000000003b0
00000000000021e148 R_X86_64 RELATIVE    *ABS*+0x0000000000000720
00000000000021e150 R_X86_64 RELATIVE    *ABS*+0x0000000000000360
00000000000021e158 R_X86_64 RELATIVE    *ABS*+0x00000000000008b0
00000000000021e160 R_X86_64 RELATIVE    *ABS*+0x0000000000000510
00000000000021e168 R_X86_64 RELATIVE    *ABS*+0x0000000000000aa0
00000000000021e170 R_X86_64 RELATIVE    *ABS*+0x0000000000000480
00000000000021e178 R_X86_64 RELATIVE    *ABS*+0x00000000000008b0
00000000000021e180 R_X86_64 RELATIVE    *ABS*+0x00000000000002e0
00000000000021e188 R_X86_64 RELATIVE    *ABS*+0x0000000000000620
00000000000021e190 R_X86_64 RELATIVE    *ABS*+0x0000000000000320
00000000000021e192 R_X86_64 RELATIVE    *ABS*+0x0000000000000780
00000000000021e198 R_X86_64 RELATIVE    *ABS*+0x0000000000000560
00000000000021e1a0 R_X86_64 RELATIVE    *ABS*+0x0000000000000400
00000000000021e1a8 R_X86_64 RELATIVE    *ABS*+0x0000000000000530
00000000000021e1b0 R_X86_64 RELATIVE    *ABS*+0x0000000000000b30
00000000000021e1b8 R_X86_64 RELATIVE    *ABS*+0x0000000000000b30
00000000000021e1c0 R_X86_64 RELATIVE    *ABS*+0x00000000000019534
00000000000021e1c8 R_X86_64 RELATIVE    *ABS*+0x00000000000016fe0
00000000000021e1d0 R_X86_64 RELATIVE    *ABS*+0x00000000000016fe4
00000000000021e1d8 R_X86_64 RELATIVE    *ABS*+0x00000000000016fea
00000000000021e1e0 R_X86_64 RELATIVE    *ABS*+0x00000000000016ff0
00000000000021e1e8 R_X86_64 RELATIVE    *ABS*+0x00000000000016fff3
00000000000021e1f0 R_X86_64 RELATIVE    *ABS*+0x00000000000016fff8
00000000000021e1f8 R_X86_64 RELATIVE    *ABS*+0x00000000000017000
00000000000021e200 R_X86_64 RELATIVE    *ABS*+0x00000000000016ffd
00000000000021e220 R_X86_64 RELATIVE    *ABS*+0x00000000000017004
00000000000021e228 R_X86_64 RELATIVE    *ABS*+0x00000000000019374
00000000000021e230 R_X86_64 RELATIVE    *ABS*+0x0000000000001700a
00000000000021e238 R_X86_64 RELATIVE    *ABS*+0x0000000000001700e
00000000000021e240 R_X86_64 RELATIVE    *ABS*+0x00000000000017014
00000000000021e248 R_X86_64 RELATIVE    *ABS*+0x00000000000016fff3
00000000000021e256 R_X86_64 RELATIVE    *ABS*+0x00000000000016e88
00000000000021e270 R_X86_64 RELATIVE    *ABS*+0x00000000000016e7a
00000000000021e278 R_X86_64 RELATIVE    *ABS*+0x0000000000001701b
00000000000021e280 R_X86_64 RELATIVE    *ABS*+0x00000000000016cd6
00000000000021e2a0 R_X86_64 RELATIVE    *ABS*+0x00000000000017025
00000000000021e2a8 R_X86_64 RELATIVE    *ABS*+0x0000000000001702d
00000000000021e2b0 R_X86_64 RELATIVE    *ABS*+0x00000000000017032
00000000000021e2b8 R_X86_64 RELATIVE    *ABS*+0x00000000000017039
00000000000021e2c0 R_X86_64 RELATIVE    *ABS*+0x00000000000017044
00000000000021e2c8 R_X86_64 RELATIVE    *ABS*+0x0000000000001704b
00000000000021e2d0 R_X86_64 RELATIVE    *ABS*+0x00000000000017054
00000000000021e2d8 R_X86_64 RELATIVE    *ABS*+0x000000000000170ee
00000000000021e300 R_X86_64 RELATIVE    *ABS*+0x00000000000019520
00000000000021e320 R_X86_64 RELATIVE    *ABS*+0x00000000000017062
00000000000021e340 R_X86_64 RELATIVE    *ABS*+0x0000000000001706c
```

Applications Terminal Help

```
00000000000021e340 R_X86_64_RELATIVE *ABS*+0x0000000000001706c
00000000000021e350 R_X86_64_RELATIVE *ABS*+0x00000000000017072
00000000000021e380 R_X86_64_RELATIVE *ABS*+0x0000000000001707c
00000000000021e3a0 R_X86_64_RELATIVE *ABS*+0x00000000000017094
00000000000021e3c0 R_X86_64_RELATIVE *ABS*+0x000000000000170a3
00000000000021e3e0 R_X86_64_RELATIVE *ABS*+0x000000000000170a9
00000000000021e400 R_X86_64_RELATIVE *ABS*+0x000000000000170b3
00000000000021e420 R_X86_64_RELATIVE *ABS*+0x000000000000170c3
00000000000021e440 R_X86_64_RELATIVE *ABS*+0x000000000000170cc
00000000000021e460 R_X86_64_RELATIVE *ABS*+0x000000000000170d1
00000000000021e480 R_X86_64_RELATIVE *ABS*+0x00000000000016e73
00000000000021e4a0 R_X86_64_RELATIVE *ABS*+0x00000000000016e5d
00000000000021e4c0 R_X86_64_RELATIVE *ABS*+0x000000000000170e7
00000000000021e4e0 R_X86_64_RELATIVE *ABS*+0x000000000000170f2
00000000000021e500 R_X86_64_RELATIVE *ABS*+0x00000000000017101
00000000000021e520 R_X86_64_RELATIVE *ABS*+0x0000000000001710a
00000000000021e540 R_X86_64_RELATIVE *ABS*+0x00000000000017114
00000000000021e560 R_X86_64_RELATIVE *ABS*+0x00000000000017117
00000000000021e580 R_X86_64_RELATIVE *ABS*+0x000000000000192d0
00000000000021e5a0 R_X86_64_RELATIVE *ABS*+0x00000000000017130
00000000000021e5c0 R_X86_64_RELATIVE *ABS*+0x00000000000017135
00000000000021e5e0 R_X86_64_RELATIVE *ABS*+0x00000000000016ea0
00000000000021e600 R_X86_64_RELATIVE *ABS*+0x0000000000001713c
00000000000021e620 R_X86_64_RELATIVE *ABS*+0x00000000000017148
00000000000021e640 R_X86_64_RELATIVE *ABS*+0x00000000000017150
00000000000021e660 R_X86_64_RELATIVE *ABS*+0x00000000000017152
00000000000021e680 R_X86_64_RELATIVE *ABS*+0x0000000000001715b
00000000000021e6a0 R_X86_64_RELATIVE *ABS*+0x00000000000017165
00000000000021e6c0 R_X86_64_RELATIVE *ABS*+0x00000000000017165
00000000000021e6e0 R_X86_64_RELATIVE *ABS*+0x00000000000016e81
00000000000021e700 R_X86_64_RELATIVE *ABS*+0x00000000000017178
00000000000021e720 R_X86_64_RELATIVE *ABS*+0x00000000000016e88
00000000000021e740 R_X86_64_RELATIVE *ABS*+0x00000000000017180
00000000000021e760 R_X86_64_RELATIVE *ABS*+0x00000000000016e98
00000000000021e780 R_X86_64_RELATIVE *ABS*+0x0000000000001718b
00000000000021e7a0 R_X86_64_RELATIVE *ABS*+0x00000000000017196
00000000000021e7c0 R_X86_64_RELATIVE *ABS*+0x0000000000001719e
00000000000021e7e0 R_X86_64_RELATIVE *ABS*+0x000000000000171a5
00000000000021e800 R_X86_64_RELATIVE *ABS*+0x00000000000016cd6
00000000000021e840 R_X86_64_RELATIVE *ABS*+0x00000000000016e1d
00000000000021e848 R_X86_64_RELATIVE *ABS*+0x00000000000017205
00000000000021e850 R_X86_64_RELATIVE *ABS*+0x00000000000017209
00000000000021e858 R_X86_64_RELATIVE *ABS*+0x0000000000001720c
00000000000021e860 R_X86_64_RELATIVE *ABS*+0x00000000000016ff0
00000000000021e868 R_X86_64_RELATIVE *ABS*+0x0000000000001720c
00000000000021e870 R_X86_64_RELATIVE *ABS*+0x0000000000001720f
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```

```
00000000000021e870 R_X86_64_RELATIVE *ABS*+0x0000000000001720f
00000000000021e878 R_X86_64_RELATIVE *ABS*+0x00000000000017212
00000000000021e880 R_X86_64_RELATIVE *ABS*+0x00000000000017215
00000000000021e888 R_X86_64_RELATIVE *ABS*+0x00000000000017248
00000000000021e890 R_X86_64_RELATIVE *ABS*+0x00000000000017218
00000000000021e898 R_X86_64_RELATIVE *ABS*+0x0000000000001721b
00000000000021e8a0 R_X86_64_RELATIVE *ABS*+0x0000000000001721e
00000000000021e8a8 R_X86_64_RELATIVE *ABS*+0x000000000000171a2
00000000000021e8b0 R_X86_64_RELATIVE *ABS*+0x00000000000017221
00000000000021e8b8 R_X86_64_RELATIVE *ABS*+0x00000000000017224
00000000000021e8c0 R_X86_64_RELATIVE *ABS*+0x00000000000017227
00000000000021e8c8 R_X86_64_RELATIVE *ABS*+0x0000000000001722a
00000000000021e9d0 R_X86_64_RELATIVE *ABS*+0x00000000000017091
00000000000021e9d8 R_X86_64_RELATIVE *ABS*+0x0000000000001722d
00000000000021e9e0 R_X86_64_RELATIVE *ABS*+0x00000000000017230
00000000000021e9e8 R_X86_64_RELATIVE *ABS*+0x00000000000017233
00000000000021e9f0 R_X86_64_RELATIVE *ABS*+0x00000000000017236
00000000000021e9f8 R_X86_64_RELATIVE *ABS*+0x00000000000017239
00000000000021e990 R_X86_64_RELATIVE *ABS*+0x00000000000016ff3
00000000000021e998 R_X86_64_RELATIVE *ABS*+0x0000000000001723c
00000000000021e930 R_X86_64_RELATIVE *ABS*+0x0000000000001710a
00000000000021e938 R_X86_64_RELATIVE *ABS*+0x00000000000017101
00000000000021e950 R_X86_64_RELATIVE *ABS*+0x00000000000016e14
00000000000021e968 R_X86_64_RELATIVE *ABS*+0x00000000000017242
00000000000021e970 R_X86_64_RELATIVE *ABS*+0x00000000000017247
00000000000021e978 R_X86_64_RELATIVE *ABS*+0x00000000000016e1b
00000000000021e980 R_X86_64_RELATIVE *ABS*+0x00000000000017094
00000000000021e988 R_X86_64_RELATIVE *ABS*+0x00000000000017114
00000000000021e9c0 R_X86_64_RELATIVE *ABS*+0x00000000000017148
00000000000021e9c8 R_X86_64_RELATIVE *ABS*+0x00000000000019507
00000000000021e9d0 R_X86_64_RELATIVE *ABS*+0x0000000000001950d
00000000000021e9d8 R_X86_64_RELATIVE *ABS*+0x0000000000001951a
00000000000021e9e0 R_X86_64_RELATIVE *ABS*+0x00000000000019527
00000000000021e9e8 R_X86_64_RELATIVE *ABS*+0x0000000000001a12f
00000000000021e9f0 R_X86_64_RELATIVE *ABS*+0x0000000000001953b
00000000000021e9f8 R_X86_64_RELATIVE *ABS*+0x00000000000019520
00000000000021eao0 R_X86_64_RELATIVE *ABS*+0x00000000000016e2b
00000000000021eao8 R_X86_64_RELATIVE *ABS*+0x00000000000019543
00000000000021f020 R_X86_64_RELATIVE *ABS*+0x000000000000171aa
00000000000021f028 R_X86_64_RELATIVE *ABS*+0x000000000000171b4
00000000000021f030 R_X86_64_RELATIVE *ABS*+0x000000000000171de
00000000000021f038 R_X86_64_RELATIVE *ABS*+0x00000000000016e69
00000000000021f078 R_X86_64_RELATIVE *ABS*+0x00000000000016ch6
00000000000021f0a8 R_X86_64_RELATIVE *ABS*+0x000000000000171c0
00000000000021f0b8 R_X86_64_RELATIVE *ABS*+0x000000000000171c6
00000000000021f0c8 R_X86_64_RELATIVE *ABS*+0x000000000000171d6
File Edit View Search Terminal Help
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Sat Apr 1, 16:10:49 danny@localhost:~

```

File Edit View Search Terminal Help
00000000000021f1c8 R X86_64 RELATIVE *ABS*+0x000000000000192f8
00000000000021f1d0 R X86_64 RELATIVE *ABS*+0x000000000000b610
00000000000021f220 R X86_64 RELATIVE *ABS*+0x0000000000021f230
00000000000021f238 R X86_64 RELATIVE *ABS*+0x0000000000021f4e0
00000000000021f240 R X86_64 RELATIVE *ABS*+0x00000000000013cf0
00000000000021ec10 R X86_64 GLOB DAT ctype toupper loc@GLIBC_2.3
00000000000021ec12 R X86_64 GLOB DAT _itoa@GLIBC_2.2.5
00000000000021ec28 R X86_64 GLOB DAT _itoaw@GLIBC_2.2.5
00000000000021ec30 R X86_64 GLOB DAT _sigprocmask@GLIBC_2.2.5
00000000000021ec38 R X86_64 GLOB DAT _raise@GLIBC_2.2.5
00000000000021ec40 R X86_64 GLOB DAT _free@GLIBC_2.2.5
00000000000021ec48 R X86_64 GLOB DAT _localtime@GLIBC_2.2.5
00000000000021ec50 R X86_64 GLOB DAT _memccpy chk@GLIBC_2.3.4
00000000000021ec58 R X86_64 GLOB DAT _abort@GLIBC_2.2.5
00000000000021ec5b R X86_64 GLOB DAT _errno location@GLIBC_2.2.5
00000000000021ec58 R X86_64 GLOB DAT _strncmp@GLIBC_2.2.5
00000000000021ec70 R X86_64 GLOB DAT _ITM_deregisterTMCloneTable
00000000000021ec78 R X86_64 GLOB DAT _stdout@GLIBC_2.2.5
00000000000021ec80 R X86_64 GLOB DAT _localtime_r@GLIBC_2.2.5
00000000000021ec88 R X86_64 GLOB DAT _exit@GLIBC_2.2.5
00000000000021ec90 R X86_64 GLOB DAT _strcpy@GLIBC_2.2.5
00000000000021ec98 R X86_64 GLOB DAT _pendind@GLIBC_2.2.5
00000000000021ec9a R X86_64 GLOB DAT _isalpha@GLIBC_2.2.5
00000000000021ec98 R X86_64 GLOB DAT _sigaction@GLIBC_2.2.5
00000000000021ecb0 R X86_64 GLOB DAT _iswcntrl@GLIBC_2.2.5
00000000000021ecb8 R X86_64 GLOB DAT _wcswidth@GLIBC_2.2.5
00000000000021ecc0 R X86_64 GLOB DAT _localeconv@GLIBC_2.2.5
00000000000021ecc8 R X86_64 GLOB DAT _mbstowcs@GLIBC_2.2.5
00000000000021ecd0 R X86_64 GLOB DAT _readlink@GLIBC_2.2.5
00000000000021ecd8 R X86_64 GLOB DAT _clock_gettime@GLIBC_2.17
00000000000021ece0 R X86_64 GLOB DAT _setenv@GLIBC_2.2.5
00000000000021ece8 R X86_64 GLOB DAT _textdomain@GLIBC_2.2.5
00000000000021ecf0 R X86_64 GLOB DAT _fclose@GLIBC_2.2.5
00000000000021ecf8 R X86_64 GLOB DAT _optind@GLIBC_2.2.5
00000000000021ed0 R X86_64 GLOB DAT _openind@GLIBC_2.2.5
00000000000021ed08 R X86_64 GLOB DAT _getpwuid@GLIBC_2.2.5
00000000000021ed10 R X86_64 GLOB DAT _bindtextdomain@GLIBC_2.2.5
00000000000021ed18 R X86_64 GLOB DAT _stpcpy@GLIBC_2.2.5
00000000000021ed20 R X86_64 GLOB DAT _dcgettext@GLIBC_2.2.5
00000000000021ed28 R X86_64 GLOB DAT _mb_CUR_max@GLIBC_2.2.5
00000000000021ed30 R X86_64 GLOB DAT _strlen@GLIBC_2.2.5
00000000000021ed38 R X86_64 GLOB DAT _lxstat@GLIBC_2.2.5
00000000000021ed40 R X86_64 GLOB DAT _stack_chk_fail@GLIBC_2.4
00000000000021ed48 R X86_64 GLOB DAT _getopt_long@GLIBC_2.2.5
00000000000021ed50 R X86_64 GLOB DAT _mbtowc@GLIBC_2.2.5

```

Sat Apr 1, 16:11:04 danny@localhost:~

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00000000000021ed50 R X86_64 GLOB DAT _mbtowc@GLIBC_2.2.5
00000000000021ed58 R X86_64 GLOB DAT _strchrn@GLIBC_2.2.5
00000000000021ed60 R X86_64 GLOB DAT _getgrgid@GLIBC_2.2.5
00000000000021ed68 R X86_64 GLOB DAT _overflow@GLIBC_2.2.5
00000000000021ed70 R X86_64 GLOB DAT _strrchrn@GLIBC_2.2.5
00000000000021ed78 R X86_64 GLOB DAT _fgetfilecon
00000000000021ed80 R X86_64 GLOB DAT _gmtime_r@GLIBC_2.2.5
00000000000021ed88 R X86_64 GLOB DAT _lseek@GLIBC_2.2.5
00000000000021ed90 R X86_64 GLOB DAT _gettimeofday@GLIBC_2.2.5
00000000000021ed98 R X86_64 GLOB DAT _assert fail@GLIBC_2.2.5
00000000000021eda0 R X86_64 GLOB DAT _strtoul_internal@GLIBC_2.2.5
00000000000021eda2 R X86_64 GLOB DAT _fnmatch@GLIBC_2.2.5
00000000000021eda4 R X86_64 GLOB DAT _memsem@GLIBC_2.2.5
00000000000021eda6 R X86_64 GLOB DAT _memsemq@GLIBC_2.2.5
00000000000021eda8 R X86_64 GLOB DAT _lock@GLIBC_2.2.5
00000000000021ecd8 R X86_64 GLOB DAT _close@GLIBC_2.2.5
00000000000021eddo R X86_64 GLOB DAT _closedir@GLIBC_2.2.5
00000000000021edd8 R X86_64 GLOB DAT _libc_start_main@GLIBC_2.2.5
00000000000021ede0 R X86_64 GLOB DAT _memcmpq@GLIBC_2.2.5
00000000000021ede8 R X86_64 GLOB DAT _setjmp@GLIBC_2.2.5
00000000000021edf0 R X86_64 GLOB DAT _fputs_unlocked@GLIBC_2.2.5
00000000000021edf8 R X86_64 GLOB DAT _calloc@GLIBC_2.2.5
00000000000021eed0 R X86_64 GLOB DAT _lgetfilecon
00000000000021eed8 R X86_64 GLOB DAT _strcmp@GLIBC_2.2.5
00000000000021ee10 R X86_64 GLOB DAT _signal@GLIBC_2.2.5
00000000000021ee18 R X86_64 GLOB DAT _dirfd@GLIBC_2.2.5
00000000000021ee20 R X86_64 GLOB DAT _getpwnam@GLIBC_2.2.5
00000000000021ee28 R X86_64 GLOB DAT _optarg@GLIBC_2.2.5
00000000000021ee30 R X86_64 GLOB DAT _memccpy_chk@GLIBC_2.3.4
00000000000021ee38 R X86_64 GLOB DAT _strncpyn@GLIBC_2.2.5
00000000000021ee40 R X86_64 GLOB DAT _anon_start
00000000000021ee48 R X86_64 GLOB DAT _memccpy@GLIBC_2.14
00000000000021ee50 R X86_64 GLOB DAT _getgrnam@GLIBC_2.2.5
00000000000021ee58 R X86_64 GLOB DAT _getfilecon
00000000000021ee60 R X86_64 GLOB DAT _program_invocation_name@GLIBC_2.2.5
00000000000021ee68 R X86_64 GLOB DAT _tzset@GLIBC_2.2.5
00000000000021ee70 R X86_64 GLOB DAT _fileno@GLIBC_2.2.5
00000000000021ee78 R X86_64 GLOB DAT _tcgetattrp@GLIBC_2.2.5
00000000000021ee80 R X86_64 GLOB DAT _xstat@GLIBC_2.2.5
00000000000021ee88 R X86_64 GLOB DAT _readdir@GLIBC_2.2.5
00000000000021ee90 R X86_64 GLOB DAT _wcwidth@GLIBC_2.2.5
00000000000021ee98 R X86_64 GLOB DAT _mallocl@GLIBC_2.2.5
00000000000021eaa0 R X86_64 GLOB DAT _fflushq@GLIBC_2.2.5
00000000000021eaa8 R X86_64 GLOB DAT _nl_langinfo@GLIBC_2.2.5
00000000000021eab0 R X86_64 GLOB DAT _ungetc@GLIBC_2.2.5
00000000000021eab8 R X86_64 GLOB DAT _fxstat@GLIBC_2.2.5

```

Applications Terminal Sat Apr 1, 16:11:20 danny@localhost:~

```
File Edit View Search Terminal Help
00000000000021ee98 R X86_64_GLOB_DAT malloc@GLIBC_2.2.5
00000000000021eea0 R X86_64_GLOB_DAT fflush@GLIBC_2.2.5
00000000000021eea8 R X86_64_GLOB_DAT nl_langinfo@GLIBC_2.2.5
00000000000021eeb0 R X86_64_GLOB_DAT ungetc@GLIBC_2.2.5
00000000000021eeb8 R X86_64_GLOB_DAT _fstatat@GLIBC_2.2.5
00000000000021eec0 R X86_64_GLOB_DAT strcoll@GLIBC_2.2.5
00000000000021eec8 R X86_64_GLOB_DAT _fread@GLIBC_2.2.5
00000000000021eed0 R X86_64_GLOB_DAT fwrite@GLIBC_2.2.5
00000000000021eed8 R X86_64_GLOB_DAT realloc@GLIBC_2.2.5
00000000000021eee0 R X86_64_GLOB_DAT stpcpy@GLIBC_2.2.5
00000000000021eee8 R X86_64_GLOB_DAT fopen@GLIBC_2.2.5
00000000000021eef0 R X86_64_GLOB_DAT setlocale@GLIBC_2.2.5
00000000000021eef8 R X86_64_GLOB_DAT _printf_chk@GLIBC_2.3.4
00000000000021eff0 R X86_64_GLOB_DAT Timegm@GLIBC_2.2.5
00000000000021eff8 R X86_64_GLOB_DAT strftime@GLIBC_2.2.5
00000000000021effa R X86_64_GLOB_DAT mempcpy@GLIBC_2.2.5
00000000000021effb R X86_64_GLOB_DAT memmove@GLIBC_2.2.5
00000000000021effd R X86_64_GLOB_DAT error@GLIBC_2.2.5
00000000000021effe R X86_64_GLOB_DAT open@GLIBC_2.2.5
00000000000021efff R X86_64_GLOB_DAT fseeko@GLIBC_2.2.5
00000000000021eff8 R X86_64_GLOB_DAT cap_get_file
00000000000021effa R X86_64_GLOB_DAT JV_RegisterClasses
00000000000021effb R X86_64_GLOB_DAT unsetenv@GLIBC_2.2.5
00000000000021effc R X86_64_GLOB_DAT getenv@GLIBC_2.2.5
00000000000021effd R X86_64_GLOB_DAT strdup@GLIBC_2.2.5
00000000000021effe R X86_64_GLOB_DAT _Cxa_atexit@GLIBC_2.2.5
00000000000021efff R X86_64_GLOB_DAT wcstombs@GLIBC_2.2.5
00000000000021eff0 R X86_64_GLOB_DAT getxattr@GLIBC_2.3
00000000000021eff8 R X86_64_GLOB_DAT freecon
00000000000021effa R X86_64_GLOB_DAT sigismember@GLIBC_2.2.5
00000000000021effb R X86_64_GLOB_DAT exit@GLIBC_2.2.5
00000000000021effc R X86_64_GLOB_DAT _fprintf_chk@GLIBC_2.3.4
00000000000021effd R X86_64_GLOB_DAT ITM_registerTMCloneTable
00000000000021effe R X86_64_GLOB_DAT fflush_unlocked@GLIBC_2.2.5
00000000000021efff R X86_64_GLOB_DAT mbssinit@GLIBC_2.2.5
00000000000021eff0 R X86_64_GLOB_DAT program_invocation_short_name@GLIBC_2.2.5
00000000000021eff1 R X86_64_GLOB_DAT iswprint@GLIBC_2.2.5
00000000000021eff2 R X86_64_GLOB_DAT _Cxa_finalize@GLIBC_2.2.5
00000000000021eff3 R X86_64_GLOB_DAT __isocodes@GLIBC_2.2.5
00000000000021eff4 R X86_64_GLOB_DAT strstr@GLIBC_2.2.5
00000000000021eff5 R X86_64_GLOB_DAT _ctype_tolower_l@GLIBC_2.3
00000000000021eff6 R X86_64_GLOB_DAT _ctype_b_loc@GLIBC_2.3
00000000000021eff7 R X86_64_GLOB_DAT stderr@GLIBC_2.2.5
00000000000021eff8 R X86_64_GLOB_DAT _sprintf_chk@GLIBC_2.3.4
```