Sigaction

```
struct sigaction {
    void (*sa_handler)  (int);
    void (*sa_sigaction)(int, siginfo_t *, void *);
    sigset_t   sa_mask;
    int  sa_flags; // SA_NOCLDSTOP, SA_NOCLDWAIT, SA_NODEFER
                   // SA_ONSTACK, SA_RESETHAND, SA_RESTART, SA_SIGINFO
    void     (*sa_restorer)(void);
};


int sigaction(int signum, const struct sigaction *act,
                                  struct sigaction *oldact);
```

```
siginfo_t {
          int      si_signo;    /* Signal number */
          int      si_errno;    /* An errno value */
          int      si_code;     /* Signal code */
          int      si_trapno;   /* Trap nb.(unused on most archs.) */
          pid_t    si_pid;      /* Sending process ID */
          uid_t    si_uid;      /* Real user ID of sending process */
          int      si_status;   /* Exit value or signal */
          clock_t  si_utime;    /* User time consumed */
          clock_t  si_stime;    /* System time consumed */
          sigval_t si_value;    /* Signal value */
          int      si_int;      /* POSIX.1b signal */
          void    *si_ptr;      /* POSIX.1b signal */
          int      si_overrun;  /* Timer overrun count; P1b timers */
          int      si_timerid;  /* Timer ID; POSIX.1b timers */
          void    *si_addr;     /* Mem. location which caused fault*/
          int      si_band;     /* Band event */
          int      si_fd;       /* File descriptor */
      }
```

Ejemplo de uso: sigaction_example.c

```
/* 2014 - from www.linuxprogrammingblog.com/code-examples/sigaction */
/* Example of using sigaction() to setup a signal handler with 3 arguments
 * including siginfo_t.
 */
#include <stdio.h>
#include <unistd.h>
#include <signal.h>
#include <string.h>

static void hdl (int sig, siginfo_t *siginfo, void *context)
{
        printf ("Sending PID: %ld, UID: %ld\n",
                        (long)siginfo->si_pid, (long)siginfo->si_uid);
}
```

Ejemplo de uso: sigaction_example.c

```
int main (int argc, char *argv[])
{
        struct sigaction act;

        memset (&act, '\0', sizeof(act));

        /* Use the sa_sigaction field because the handles has two add. params */
        act.sa_sigaction = &hdl;

        /* The SA_SIGINFO flag tells sigaction() to use the sa_sigaction field,
         * not sa_handler.
         */
        act.sa_flags = SA_SIGINFO;

        if (sigaction(SIGTERM, &act, NULL) < 0) {
                perror ("sigaction");
                return 1;
        }

        while (1)
                sleep (10);

        return 0;
}
```

Un ejemplo más

`stacktrace_ucontext.c`