

https://elixir.bootlin.com/linux/latest/source/include/linux/seq_file.h

```
struct seq_operations;

struct seq_file {
    char *buf;
    size_t size;
    size_t from;
    size_t count;
    size_t pad_until;
    loff_t index;
    loff_t read_pos;
    struct mutex lock;
    const struct seq_operations *op;
    int poll_event;
    const struct file *file;
    void *private;
};

struct seq_operations {
    void (*start) (struct seq_file *m, loff_t *pos);
    void (*stop) (struct seq_file *m, void *v);
    void (*next) (struct seq_file *m, void *v, loff_t *pos);
    int (*show) (struct seq_file *m, void *v);
};

int seq_path(struct seq_file *, const struct path *, const char *);
int seq_file_path(struct seq_file *, struct file *, const char *);
int seq_dentry(struct seq_file *, struct dentry *, const char *);
int seq_path_root(struct seq_file *m, const struct path *path,
                  const struct path *root, const char *esc);

int single_open(struct file *, int (*)(struct seq_file *, void *), void *);
int single_open_size(struct file *, int (*)(struct seq_file *, void *), void *, size_t);
int single_release(struct inode *, struct file *);
void *__seq_open_private(struct file *, const struct seq_operations *, int);
int seq_open_private(struct file *, const struct seq_operations *, int);
int seq_release_private(struct inode *, struct file *);

/*
 * Helpers for iteration over list_head-s in seq_files
 */

extern struct list_head *seq_list_start(struct list_head *head,
                                       loff_t pos);
extern struct list_head *seq_list_start_head(struct list_head *head,
                                             loff_t pos);
extern struct list_head *seq_list_next(void *v, struct list_head *head,
                                       loff_t *ppos);
```