NAME

      selinux_restorecon_xattr − manage default *security.sehash* extended attribute entries added by **selinux_restorecon**(3), **setfiles**(8) or **restorecon**(8).

SYNOPSIS

      #include <selinux/restorecon.h>

      int selinux_restorecon_xattr(const char *pathname**,**
                       unsigned int *xattr_flags***,**
                       struct dir_xattr ***xattr_list**);**

DESCRIPTION

      selinux_restorecon_xattr() returns a linked list of **dir_xattr** structures containing information described below based on:

          pathname containing a directory tree to be searched for *security.sehash* extended attribute entries.

          xattr_flags contains options as follows:

              SELINUX_RESTORECON_XATTR_RECURSE recursively descend directories.

              SELINUX_RESTORECON_XATTR_DELETE_NONMATCH_DIGESTS delete non-matching digests from each directory in *pathname*.

              SELINUX_RESTORECON_XATTR_DELETE_ALL_DIGESTS delete all digests from each directory in *pathname*.

              SELINUX_RESTORECON_XATTR_IGNORE_MOUNTS do not read **/proc/mounts** to obtain a list of non-seclabel mounts to be excluded from the search.
              Setting **SELINUX_RESTORECON_XATTR_IGNORE_MOUNTS** is useful where there is a non-seclabel fs mounted with a seclabel fs mounted on a directory below this.

          xattr_list is the returned pointer to a linked list of **dir_xattr** structures, each containing the following information:

```
struct dir_xattr {
    char *directory;
    char *digest;   /* Printable hex encoded string */
    enum digest_result result;
    struct dir_xattr *next;
};
```

          The **result** entry is enumerated as follows:
```
enum digest_result {
    MATCH = 0,
    NOMATCH,
    DELETED_MATCH,
    DELETED_NOMATCH,
    ERROR
};
```

          xattr_list must be set to **NULL** before calling **selinux_restorecon_xattr**(3). The caller is responsible for freeing the returned *xattr_list* entries in the linked list.

See the **NOTES** section for more information.

RETURN VALUE

On success, zero is returned. On error, −1 is returned and *errno* is set appropriately.

NOTES

1. By default **selinux_restorecon_xattr**(3) will use the default set of specfiles described in **files_contexts**(5) to calculate the SHA1 digests to be used for comparison. To change this default behavior **selabel_open**(3) must be called specifying the required **SELABEL_OPT_PATH** and setting the **SELABEL_OPT_DIGEST** option to a non-NULL value. **selinux_restorecon_set_sehandle**(3) is then called to set the handle to be used by **selinux_restorecon_xattr**(3).

2. By default **selinux_restorecon_xattr**(3) reads **/proc/mounts** to obtain a list of non-seclabel mounts to be excluded from searches unless the **SELINUX_RESTORECON_XATTR_IGNORE_MOUNTS** flag has been set.

3. **RAMFS** and **TMPFS** filesystems do not support the *security.sehash* extended attribute and are automatically excluded from searches.

4. By default **stderr** is used to log output messages and errors. This may be changed by calling **selinux_set_callback**(3) with the **SELINUX_CB_LOG** *type* option.

SEE ALSO

selinux_restorecon(3)
selinux_restorecon_set_sehandle(3),
selinux_restorecon_default_handle(3),
selinux_restorecon_set_exclude_list(3),
selinux_restorecon_set_alt_rootpath(3),
selinux_set_callback(3)