The Open Group Base Specifications Issue 7, 2018 edition
IEEE Std 1003.1-2017 (Revision of IEEE Std 1003.1-2008)
Copyright © 2001-2018 IEEE and The Open Group

NAME

search.h - search tables

SYNOPSIS

[XSI] ⊠ #include <search.h> ⊠

DESCRIPTION

The *<search.h>* header shall define the **ENTRY** type for structure **entry** which shall include the following members:

```
char    *key
void    *data
```

and shall define **ACTION** and **VISIT** as enumeration data types through type definitions as follows:

```
enum { FIND, ENTER } ACTION;
enum { preorder, postorder, endorder, leaf } VISIT;
```

The *<search.h>* header shall define the **size_t** type as described in *<sys/types.h>*.

The following shall be declared as functions and may also be defined as macros. Function prototypes shall be provided.

```
int    hcreate(size_t);
void   hdestroy(void);
ENTRY *hsearch(ENTRY, ACTION);
void   insque(void *, void *);
void  *lfind(const void *, const void *, size_t *,
          size_t, int (*)(const void *, const void *));
void  *lsearch(const void *, void *, size_t *,
          size_t, int (*)(const void *, const void *));
void   remque(void *);
void  *tdelete(const void *restrict, void **restrict,
          int(*)(const void *, const void *));
void  *tfind(const void *, void *const *,
          int(*)(const void *, const void *));
void  *tsearch(const void *, void **,
          int(*)(const void *, const void *));
void   twalk(const void *,
          void (*)(const void *, VISIT, int ));
```

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

<sys/types.h>

XSH *hcreate*, *insque*, *lsearch*, *tdelete*

CHANGE HISTORY

First released in Issue 1. Derived from Issue 1 of the SVID.

Issue 6

The Open Group Corrigendum U021/6 is applied, updating the prototypes for *tdelete*() and *tsearch*().

The **restrict** keyword is added to the prototype for *tdelete*().

End of informative text.

---

return to top of page

[Main Index | XBD | XSH | XCU | XRAT]