

# asn1\_read\_value\_type(3)

---

asn1\_read\_value\_type(3)   libtasn1   asn1\_read\_value\_type(3)

---

## NAME

asn1\_read\_value\_type - API function

## SYNOPSIS

**#include <libtasn1.h>**

**int** **asn1\_read\_value\_type**(asn1\_noderoot, **const char** \*name, **void** \*ivalue, **int** \*len, **unsigned int** \*etype);

## ARGUMENTS

**asn1\_node root** pointer to a structure.

**const char \* name** the name of the element inside a structure that you want to read.

**void \* ivalue** vector that will contain the element's content, must be a pointer to memory cells already allocated (may be **NULL**).

**int \* len** number of bytes of \*value: value[0]..value[len-1]. Initially holds the sizeof value.

**unsigned int \* etype** The type of the value read (ASN1\_ETYPE)

## DESCRIPTION

Returns the value of one element inside a structure. If an element is OPTIONAL and this returns **ASN1\_ELEMENT\_NOT\_FOUND**, it means that this element wasn't present in the der encoding that created the structure. The first element of a SEQUENCE\_OF or SET\_OF is named "?1". The second one "?2" and so on.

Note that there can be valid values with length zero. In these case this function will succeed and len will be zero.

## INTEGER

VALUE will contain a two's complement form integer.

integer=-1 -> value[0]=0xFF , len=1. integer=1 -> value[0]=0x01 , len=1.

## ENUMERATED

As INTEGER (but only with not negative numbers).

## BOOLEAN

VALUE will be the null terminated string "TRUE" or "FALSE" and LEN=5 or LEN=6.

OBJECT IDENTIFIER: VALUE will be a null terminated string with each number separated by a dot (i.e. "1.2.3.543.1").

LEN = strlen(VALUE)+1

## UTCTIME

VALUE will be a null terminated string in one of these formats: "YYMMDDhh-mmss+hh'mm'" or "YYMMDDhhmmss-hh'mm'". LEN=strlen(VALUE)+1.

## GENERALIZEDTIME

VALUE will be a null terminated string in the same format used to set the value.

OCTET STRING: VALUE will contain the octet string and LEN will be the number of octets.

## GENERALSTRING

VALUE will contain the generalstring and LEN will be the number of octets.

BIT STRING: VALUE will contain the bit string organized by bytes and LEN will be the number of bits.

## CHOICE

If NAME indicates a choice type, VALUE will specify the alternative selected.

## ANY

If NAME indicates an any type, VALUE will indicate the DER encoding of the structure actually used.

## RETURNS

**ASN1\_SUCCESS** if value is returned, **ASN1\_ELEMENT\_NOT\_FOUND** if name is not a valid element, **ASN1\_VALUE\_NOT\_FOUND** if there isn't any value for the element selected, and **ASN1\_MEM\_ERROR** if The value vector isn't big enough to store the result, and in this case len will contain the number of bytes needed.

## COPYRIGHT

Copyright © 2006-2013 Free Software Foundation, Inc..

Copying and distribution of this file, with or without modification, are permitted in any medium without royalty provided the copyright notice and this notice are preserved.

## SEE ALSO

The full documentation for **libtasn1** is maintained as a Texinfo manual. If the **info** and **libtasn1** programs are properly installed at your site, the command

**info libtasn1**

should give you access to the complete manual. As an alternative you may obtain the manual from:

**<http://www.gnu.org/software/libtasn1/manual/>**

---

3.4 libtasn1

---