

**NAME**

??toa - machine format to ASCII conversion

**SYNOPSIS**

```
??toa(s1,n1)
char *s1;
int n1;
```

**DESCRIPTION**

??toa describes a family of 10 functions which convert binary numeric representations of a word or a double word to ASCII string format. The first five functions convert a word or integer to a string. The second five functions convert a double word or long to a string. The following is a list of the subroutine names:

```
btoa - binary
dtoa - signed decimal
otoa - octal
utoa - unsigned decimal
xtoa - hexadecimal
lbtoa - long binary
ldtoa - long signed decimal
lotoa - long octal
lutoa - long unsigned decimal
lxtoa - long hexadecimal
```

These functions return an integer indicating the length of the generated string s1 if no error occurred. If an error occurred, the value returned is zero. The value returned is the same as would be returned by the len function. The only cause for an error is the address zero for the string pointer s1.

s1 points to a buffer where the generated string will be stored. The buffer length is always assumed to be sufficient. The generated string is a null terminated string.

n1 an integer or long to be evaluated. Depending upon the function, the integer or long will be converted to an ASCII string.

The string generation conventions are minimum length strings except for the binary case in which leading zeros are preserved. In all conversions except binary leading zeros are deleted. For signed conversions, only the minus sign is generated. The terminating null character is placed immediately after the last numeric character. A zero numeric value will generate a string containing a single zero character.

The ranges of each of the conversion types are

```
btoa - 16 zero's to 16 one's
dtoa - -32768 to 32767
otoa - 0 to 177777
utoa - 0 to 65535
```

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xtoa - 0 to FFFF  
lbtoa - 32 zero's to 32 one's  
ldtoa - -2147483648 to 2147483647  
lotoa - 0 to 3777777777  
lutoa - 0 to 4294967295  
lxtoa - 0 to FFFFFFFF

**LIBRARY**

/lib/lib3.a

**SEE ALSO**

ato??(3L)