

# Storage Management Services Utilities Library

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# **Introduction**

This document explains the support routines used with the SME, Target Service API, and TSA. The following functions are discussed in this document:

**DOS Date and Time Functions** packs date and time data into DOS' format and unpacks this same format. Routines to check for valid date and time, and to get the current date and time are also provided.

**Data Set Name Functions** parse and build the NWSM\_DATA\_SET\_NAME\_LIST and NWSM\_SELECTION\_LIST structures.

**List Functions** manage a linked list(s). Each element of the list has a text descriptor field and another information field in which any data can be stored.

**SIDF Functions and FID Macros** simplify the building and parsing of SIDF section, field, and FIDs.

**Path Functions** remove a child node, return a pointer to the child node, qualify a path, verify a DOS name, concatenate strings, etc.

**Miscellaneous Functions** generate a CRC, list the SMDRs, etc.

The following data types are used throughout this document:

```
BUFFERPTR    UINT8 *
CCODE        signed long, 4 bytes
LSTRING      length (1 byte) preceded char array
NWBOOLEAN    short, 2 bytes
STRING       NULL terminated unsigned char array
STRING_BUFFER
    typedef struct
    {
        UINT16  size;
        CHAR    string[1];
    } STRING_BUFFER;
UINT8        unsigned char, 1 byte
INT16        signed short (2 bytes)
UINT16       unsigned integer, 2 bytes
UINT32       unsigned integer, 4 bytes
```