

Functions

Character Classification Functions

Classify NeXTSTEP-Encoded Values

int	NXIsAlpha (unsigned int <i>c</i>)
int	NXIsUpper (unsigned int <i>c</i>)
int	NXIsLower (unsigned int <i>c</i>)
int	NXIsDigit (unsigned int <i>c</i>)
int	NXIsXDigit (unsigned int <i>c</i>)
int	NXIsAlNum (unsigned int <i>c</i>)
int	NXIsSpace (unsigned int <i>c</i>)
int	NXIsPunct (unsigned int <i>c</i>)
int	NXIsPrint (unsigned int <i>c</i>)
int	NXIsGraph (unsigned int <i>c</i>)
int	NXIsCntrl (unsigned int <i>c</i>)
int	NXIsAscii (unsigned int <i>c</i>)

Convert NeXTSTEP-Encoded Characters

unsigned char *	NXToAscii (unsigned int <i>c</i>)
int	NXToLower (unsigned int <i>c</i>)
int	NXToUpper (unsigned int <i>c</i>)

Defaults System Functions

Set or Read Default Parameters

int	NXRegisterDefaults (const char * <i>owner</i> , const NXDefaultsVector <i>vector</i>)
const char *	NXGetDefaultValue (const char * <i>owner</i> , const char * <i>name</i>)
const char *	NXReadDefault (const char * <i>owner</i> , const char * <i>name</i>)
int	NXRemoveDefault (const char * <i>owner</i> , const char * <i>name</i>)
int	NXSetDefault (const char * <i>owner</i> , const char * <i>name</i> , const char * <i>value</i>)
const char *	NXUpdateDefault (const char * <i>owner</i> , const char * <i>name</i>)
void	NXUpdateDefaults (void)
int	NXWriteDefault (const char * <i>owner</i> , const char * <i>name</i> , const char * <i>value</i>)
int	NXWriteDefaults (const char * <i>owner</i> , NXDefaultsVector <i>vector</i>)
const char *	NXSetDefaultsUser (const char * <i>newUser</i>)

Error-Handling Functions

Macros to Raise an Exception

void	NX_RAISE (int <i>code</i> , const void * <i>data1</i> , const void * <i>data2</i>)
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void	NX_RERAISE (void)
val	NX_VALRETURN (val)
void	NX_VOIDRETURN

Set and Return an Exception Raiser

void	NXDefaultExceptionRaiser (int <i>code</i> , const void * <i>data1</i> , const void * <i>data2</i>)
void	NXSetExceptionRaiser (NXExceptionRaiser * <i>procedure</i>)
NXExceptionRaiser *	NXGetExceptionRaiser (void)

Macros to Handle Uncaught Exceptions

void	NXSetUncaughtExceptionHandler (NXUncaughtExceptionHandler * <i>proc</i>)
NXUncaughtExceptionHandler *	NXGetUncaughtExceptionHandler (void)

Manage the Error Data Buffer

void	NXAllocErrorData (int <i>size</i> , void ** <i>data</i>)
void	NXResetErrorData (void)

Stream Functions

Manipulate a Memory Stream

NXStream *	NXOpenMemory (const char * <i>address</i> , int <i>size</i> , int <i>mode</i>)
NXStream *	NXMapFile (const char * <i>pathName</i> , int <i>mode</i>)
int	NXSaveToFile (NXStream * <i>stream</i> , const char * <i>name</i>)
void	NXCloseMemory (NXStream * <i>stream</i> , int <i>option</i>)
void	NXGetMemoryBuffer (NXStream * <i>stream</i> , char ** <i>streambuf</i> , int * <i>len</i> , int * <i>maxLen</i>)

Open a File Stream or a Mach Port Stream

NXStream *	NXOpenFile (int <i>fd</i> , int <i>mode</i>)
NXStream *	NXOpenPort (port_t <i>port</i> , int <i>mode</i>)

Close a Stream

void	NXClose (NXStream * <i>stream</i>)
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Read From or Write to a Stream

int	NXRead (NXStream * <i>stream</i> , void * <i>buf</i> , int <i>count</i>)
int	NXWrite (NXStream * <i>stream</i> , const void * <i>buf</i> , int <i>count</i>)

Read or Write Formatted Data from or to a Stream

int	NXPutc (NXStream * <i>stream</i> , char <i>c</i>) /* a macro */
int	NXGetc (NXStream * <i>stream</i>) /* a macro */
void	NXUngetc (NXStream * <i>stream</i>)
int	NXScanf (NXStream * <i>stream</i> , const char * <i>format</i> , ...)
void	NXPrintf (NXStream * <i>stream</i> , const char * <i>format</i> , ...)
int	NXVScanf (NXStream * <i>stream</i> , const char * <i>format</i> , va_list <i>argList</i>)
void	NXVPrintf (NXStream * <i>stream</i> , const char * <i>format</i> , va_list <i>argList</i>)

Register a Procedure for Formatting Data Written to a Stream

```
void NXRegisterPrintfProc(char formatChar, NXPrintfProc *proc, void *procData)
```

Flush a Stream

```
int NXFlush(NXStream *stream)
```

Set or Report Current Position in a Stream

```
void NXSeek(NXStream *stream, long offset, int ptrName)
```

```
long NXTell(NXStream *stream)
```

```

BOOL NXAtEOS(NXStream *stream) /* a macro */

```

Support a User-defined Stream

NXStream * **NXStreamCreate**(int *mode*, int *createBuf*)

NXStream * NXStreamCreateFromZone(int *mode*, int *createBuf*, NXZone **zone*)

```
void NXStreamDestroy(NXStream *stream)
```

```
int NXDefaultRead(NXStream *stream, void *buf, int count)
```

```
int NXDefaultWrite(NXStream *stream, const void *buf, int count)
```

```
int NXFill(NXStream *stream)
```

```
void NXChangeBuffer(NXStream *stream)
```

Typed Stream Functions

Open or Close a Typed Stream

NXTypedStream* **NXOpenTypedStream**(NXStream *stream, int mode)

```
void NXCloseTypedStream(NXTypedStream *stream)
```

NXTypedStream* NXOpenTypedStreamFromFile(const char *fileName, int mode)

Read or Write Objective C Objects from or to a Typed Stream

id **NXReadObject**(NXTypedStream **stream*)

```
void NXWriteObject(NXTypedStream *stream, id object)
```

```
void NXWriteObjectReference(NXTypedStream *stream, id object)
```

```
void NXWriteRootObject(NXTypedStream *stream, id rootObject)
```

Read or Write Arbitrary Data from or to a Typed Stream

```
void NXReadType(NXTypedStream *stream, const char *type, void *data)
```

```
void NXWriteType(NXTypedStream *stream, const char *type, const void *data)
```

```
void NXReadTypes(NXTypedStream *stream, const char *types, ...)
```

```
void NXWriteTypes(NXTypedStream *stream, const char *types, ...)
```

Read or Write Arrays from or to a Typed Stream

```
void NXReadArray(NXTypedStream *stream, const char *dataType, int count, void
                *data)
```

```
void NXWriteArray(NXTypedStream *stream, const char *dataType, int count, const
                void *data)
```

Read or Write an Object from or to a Typed-Stream Memory Buffer

id	NXReadObjectFromBuffer (const char * <i>buffer</i> , int <i>length</i>)
char *	NXWriteRootObjectToBuffer (id <i>object</i> , int * <i>length</i>)
void	NXFreeObjectBuffer (char * <i>buffer</i> , int <i>length</i>)

Determine Whether There's More Data to Be Read

BOOL	NXEndOfTypedStream (NXTypedStream * <i>stream</i>)
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Flush a Typed Stream

void	NXFlushTypedStream (NXTypedStream * <i>stream</i>)
------	--

Get the Version Number of a Class

int	NXTypedStreamClassVersion (NXTypedStream * <i>stream</i> , const char * <i>className</i>)
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Get or Set the Zone for a Typed Stream

NXZone	NXGetTypedStreamZone (NXTypedStream * <i>stream</i>)
void	NXSetTypedStreamZone (NXTypedStream * <i>stream</i> , NXZone * <i>zone</i>)
id	NXReadObjectFromBufferWithZone (const char * <i>buffer</i> , int <i>length</i> , NXZone * <i>zone</i>)

Memory Allocation Functions

Zone Memory Allocation

void *	NXZoneMalloc (NXZone * <i>zone</i> , size_t <i>size</i>)
void *	NXZoneCalloc (NXZone * <i>zone</i> , size_t <i>numElems</i> , size_t <i>numBytes</i>)
void *	NXZoneRealloc (NXZone * <i>zone</i> , void * <i>ptr</i> , size_t <i>size</i>)
void	NXZoneFree (NXZone * <i>zone</i> , void * <i>ptr</i>)
NXZone *	NXDefaultMallocZone (void)
NXZone *	NXCreateZone (size_t <i>startSize</i> , size_t <i>granularity</i> , int <i>canFree</i>)
NXZone *	NXCreateChildZone (NXZone * <i>parentZone</i> , size_t <i>startSize</i> , size_t <i>granularity</i> , int <i>canFree</i>)
void	NXMergeZone (NXZone * <i>zone</i>)
void	NXDestroyZone (NXZone * <i>zone</i>)
NXZone *	NXZoneFromPtr (void * <i>ptr</i>)
void	NXZonePtrInfo (void * <i>ptr</i>)
int	NXMallocCheck (void)
void	NXNameZone (NXZone * <i>zonep</i> , const char * <i>name</i>)

Hash and String Table Functions

Create, Manipulate, and Free a Hash Table

NXHashTable *	NXCreateHashTable (NXHashTablePrototype <i>prototype</i> , unsigned <i>capacity</i> , const void * <i>info</i>)
NXHashTable *	NXCreateHashTableFromZone (NXHashTablePrototype <i>prototype</i> , unsigned

	<i>capacity</i> , const void <i>*info</i> , NXZone <i>*zone</i>)
void	NXFreeHashTable (NXHashTable <i>*table</i>)
void	NXEmptyHashTable (NXHashTable <i>*table</i>)
void	NXResetHashTable (NXHashTable <i>*table</i>)
NXHashTable *	NXCopyHashTable (NXHashTable <i>*table</i>)
BOOL	NXCompareHashTables (NXHashTable <i>*table1</i> , NXHashTable <i>*table2</i>)
unsigned	NXPtrHash (const void <i>*info</i> , const void <i>*data</i>)
unsigned	NXStrHash (const void <i>*info</i> , const void <i>*data</i>)
int	NXPtrIsEqual (const void <i>*info</i> , const void <i>*data1</i> , const void <i>*data2</i>)
int	NXStrIsEqual (const void <i>*info</i> , const void <i>*data1</i> , const void <i>*data2</i>)
void	NXNoEffectFree (const void <i>*info</i> , void <i>*data</i>)
void	NXReallyFree (const void <i>*info</i> , void <i>*data</i>)

Manipulate the Elements of a Hash Table

void *	NXHashInsert (NXHashTable <i>*table</i> , const void <i>*data</i>)
void *	NXHashInsertIfAbsent (NXHashTable <i>*table</i> , const void <i>*data</i>)
int	NXHashMember (NXHashTable <i>*table</i> , const void <i>*data</i>)
void *	NXHashGet (NXHashTable <i>*table</i> , const void <i>*data</i>)
void *	NXHashRemove (NXHashTable <i>*table</i> , const void <i>*data</i>)
unsigned	NXCountHashTable (NXHashTable <i>*table</i>)
NXHashState	NXInitHashState (NXHashTable <i>*table</i>)
int	NXNextHashState (NXHashTable <i>*table</i> , NXHashState <i>*state</i> , void <i>**data</i>)

String Functions

Get Localized Versions of Strings

const char *	NXLocalizedString (const char <i>*key</i> , const char <i>*value</i> , <i>comment</i>)
const char *	NXLocalizedStringFromTable (const char <i>*table</i> , const char <i>*key</i> , const char <i>*value</i> , <i>comment</i>)
const char *	NXLocalizedStringFromTableInBundle (const char <i>*table</i> , NXBundle <i>*bundle</i> , const char <i>*key</i> , const char <i>*value</i> , <i>comment</i>)
const char *	NXLoadLocalizedStringFromTableInBundle (const char <i>*table</i> , NXBundle <i>*bundle</i> , const char <i>*key</i> , const char <i>*value</i>)

Create a Unique String

NXAtom	NXUniqueString (const char <i>*buffer</i>)
NXAtom	NXUniqueStringWithLength (const char <i>*buffer</i> , int <i>length</i>)
NXAtom	NXUniqueStringNoCopy (const char <i>*buffer</i>)
char *	NXCopyStringBuffer (const char <i>*buffer</i>)
char *	NXCopyStringBufferFromZone (const char <i>*buffer</i> , NXZone <i>*zone</i>)

Miscellaneous Functions

Get a Pointer to the Objects Stored in a List

id *	NX_ADDRESS (List <i>*aList</i>)
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Search for and Read a File

int

NXFilePathSearch

(const char **envVarName*, const char **defaultPath*, int
leftToRight, const char **fileName*, int (**funcPtr*)(), void **funcArg*)