

| Offset    | Size  | Name         | Description   |
|-----------|-------|--------------|---|
| 00h       | WORD  | ne_magic     | Signature word NEMAGIC  |
| On-disk   |       |              |   |
| 02h       | BYTE  | ne_ver       | Version number of the linker  |
| 03h       | BYTE  | ne_rev       | Revision number of the linker   |
| In-memory |       |              |   |
| 02h       | WORD  | count        | Usage count (ne_ver/ne_rev on disk)   |
| 04h       | WORD  | ne_enttab    | Entry Table file offset, relative to the beginning of the segmented EXE header  |
| On-disk   |       |              |   |
| 06h       | WORD  | ne_cbenttab  | Number of bytes in the entry table  |
| In-memory |       |              |   |
| 06h       | WORD  | next         | Selector to next module   |
| On-disk   |       |              |   |
| 08h       | DWORD | ne_crc       | 32-bit CRC of entire contents of file. These words are taken as 00 during the calculation   |
| In-memory |       |              |   |
| 08h       | WORD  | dgroup_entry | Near ptr to segment entry for DGROUP  |
| 0Ah       | WORD  | fileinfo     | Near ptr to file info (OFSTRUCT)  |
| 0Ch       | WORD  | ne_flags     | Flag word   |
| 0Eh       | WORD  | ne_autodata  | Segment number of automatic data segment. This value is set to zero if SINGLEDATA and MULTIPLEDATA flag bits are clear, NOAUTODATA is indicated in the flags word. A Segment number is an index into the module's segment table. The first entry in the segment table is segment number 1 |
| 10h       | WORD  | ne_heap      | Initial size, in bytes, of dynamic heap added to the data segment. This value is zero if no initial local heap is allocated   |
| 12h       | WORD  | ne_stack     | Initial size, in bytes, of stack added to the data segment. This value is zero to indicate no initial stack allocation, or when SS is not equal to DS   |
| 14h       | DWORD | ne_csip      | Segment number:offset of CS:IP  |

#### On-disk segment entry

| Offset | Size | Name        | Description  |
|--------|------|-------------|--|
| 00h    | WORD | ns_sector   | Logical-sector offset (n byte) to the contents of the segment data, relative to the beginning of the file. Zero means no file data |
| 02h    | WORD | ns_cbseg    | Length of the segment in the file, in bytes. Zero means 64K  |
| 04h    | WORD | ns_flags    | Flag word  |
| 06h    | WORD | ns_minalloc | Minimum allocation size of the segment, in bytes. Total size of the segment. Zero means 64K  |

#### In-memory segment entry

| Offset | Size | Name         | Description  |
|--------|------|--------------|--|
| 00h    | WORD | ns1_sector   | Logical-sector offset (n byte) to the contents of the segment data, relative to the beginning of the file. Zero means no file data |
| 02h    | WORD | ns1_cbseg    | Length of the segment in the file, in bytes. Zero means 64K  |
| 04h    | WORD | ns1_flags    | Flag word  |
| 06h    | WORD | ns1_minalloc | Minimum allocation size of the segment, in bytes. Total size of the segment. Zero means 64K  |
| 08h    | WORD | ns1_handle   | Selector or handle (selector - 1) of segment in memory   |

```
struct new_segdata {
```

```
    union {
        struct {
            WORD    ns_niter;
            WORD    ns_nbytes;
            char    ns_iterdata;
        } ns_iter;
        struct {
            char    ns_data;
        } ns_noniter;
    } ns_union;
```

```
};
```

```
struct new_rlinfo {
```

```
    WORD    nr_nreloc;
```

```
};
```

```
struct new_rlc {
```

```
    char    nr_stype;
    char    nr_flags;
    WORD    nr_soff;
    union {
        struct {
            char    nr_segno;
            char    nr_res;
            WORD    nr_entry;
        } nr_intref;
        struct {
            WORD    nr_mod;
            WORD    nr_proc;
        } nr_import;
        struct {
            WORD    nr_ostype;
            WORD    nr_osres;
        } nr_osfix;
    } nr_union;
```

```
};

#define NR_STYPE(x) (x).nr_stype #define NR_FLAGS(x) (x).nr_flags #define NR_SOFF(x) (x).nr_soff
#define NR_SEGNO(x) (x).nr_union.nr_intref.nr_segno #define NR_RES(x) (x).nr_union.nr_intref.nr_res
#define NR_ENTRY(x) (x).nr_union.nr_intref.nr_entry #define NR_MOD(x)
(x).nr_union.nr_import.nr_mod #define NR_PROC(x) (x).nr_union.nr_import.nr_proc #define
NR_OSTYPE(x) (x).nr_union.nr_osfix.nr_ostype #define NR_OSRES(x) (x).nr_union.nr_osfix.nr_osres

#define NRSTYP 0x0f #define NRSBYT 0x00 #define NRSSEG 0x02 #define NRSPTR 0x03 #define
NRSOFF 0x05 #define NRPTR48 0x06 #define NROFF32 0x07 #define NRSOFF32 0x08

#define NRADD 0x04 #define NRRTYP 0x03 #define NRRINT 0x00 #define NRRORD 0x01 #define
NRRNAM 0x02 #define NRROSF 0x03 #define NRICHAIN 0x08

#if (EXE386 == 0)

#define RS_LEN(x) (x).rs_len #define RS_STRING(x) (x).rs_string #define RS_ALIGN(x) (x).rs_align

#define RT_ID(x) (x).rt_id #define RT_NRES(x) (x).rt_nres #define RT_PROC(x) (x).rt_proc

#define RN_OFFSET(x) (x).rn_offset #define RN_LENGTH(x) (x).rn_length #define RN_FLAGS(x)
(x).rn_flags #define RN_ID(x) (x).rn_id #define RN_HANDLE(x) (x).rn_handle #define RN_USAGE(x)
(x).rn_usage

#define RSORDID 0x8000

#define RNMOVE 0x0010 #define RNPURE 0x0020 #define RNPRELOAD 0x0040 #define RNDISCARD
0xF000

#define NE_FFLAGS_LIBMODULE 0x8000

struct rsrc_string {

    char    rs_len;
    char    rs_string[1];

};

struct rsrc_typeinfo {

    WORD    rt_id;
    WORD    rt_nres;
    DWORD           rt_proc;

};

struct rsrc_nameinfo {

    WORD    rn_offset;
    WORD    rn_length;
    WORD    rn_flags;
    WORD    rn_id;
    WORD    rn_handle;
```

```
WORD    rn_usage;
```

```
};
```

```
struct new_rsrc {
```

```
WORD          rs_align;  
struct rsrc_typeinfo  rs_typeinfo;
```

```
};
```

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