

# soundmetadata.bin

Binary AudioKinetic metadata file. This file is present in DOOM Eternal and DOOM: The Dark Ages. However, their contents are very different (despite maintaining the same basic chunking structure)

The following is the file format for Dark Ages

```
// All values are Little-Endian

template<typename TYPE>
struct list_t {
    uint32_t num;
    TYPE* data;
}

struct string_t {
    uint32_t length;
    char* data; // Not null-terminated
}

// Case-insensitive (to lowercase) FNV hash
typedef uint32_t hash_t;

struct NameHash {
    string_t name;
    hash_t hash; // Hash of the above string
}

// This file loves to flip-flop between putting
// a string after it's hash, or before it's hash
struct HashName {
    hash_t hash; // Hash of the following string
    string_t name;
}

struct SoundEvent {
    NameHash name;
    uint8_t languageID; // 0 corresponds with "SFX" and 1 with "ENGLISH(US)"
    string_t languageString;
}
```

```

// Sections 4 and 5 of the soundmetadata have
// the exact same format. Hence we can reuse
// the same structure definitions for convenience
struct Section_4_5_Item {
    HashName name;
    list_t<HashName> stringlist;
}

struct SampleList_PlaybackTimes {
    string_t languageString;
    float playbackTime; // Playback time of the sample in seconds
}

struct SampleList_Sample {
    uint32_t sampleID;
    string_t languageString; // Language name, NOT the hashed string corresponding to the
sampleID
}

// Can be used to identify which audio samples are used
// in which soundbanks
struct SampleList {
    NameHash name; // Name of a soundbank
    uint8_t byte; // Always 0
    uint32_t word; // Unknown
    uint8_t flag0; // 0 or 1
    uint8_t flag1; // 0 or 1
    uint32_t word2; // Unknown

    // IMPORTANT: This list (including it's length field)
    // is present ONLY IF flag0 == 0
    // Only present in non-SFX sample lists
    list_t<SampleList_PlaybackTimes> playbackTimes;

    list_t<SampleList_Sample> samples;
}

struct SoundMetaData_DarkAges {

    list_t<SoundEvent> SoundEvents;

```

```
list_t<HashName> section2; // Exact purpose unknown
list_t<NameHash> section3; // Exact purpose unknown
list_t<Section_4_5_Item> SoundSwitches;
list_t<Section_4_5_Item> SoundStates;
list_t<SampleList> SampleLists;

// See https://wiki.eternalmods.com/books/8-reverse-engineering-file-formats/page/containermask
// For an explanation of this structure.
sndContainerMask ContainerMask
}
```

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Revision #2

Created 15 May 2026 13:10:08 by FlavorfulGecko5

Updated 15 May 2026 17:36:57 by FlavorfulGecko5