# EBML Document Structure & Matroska Container Format

| Element 1 | | | | | | |
|---|---|---|---|---|---|---|
| ELEMENT_ID | Size | Data | | | | |
| | | Element 1.1 ... | Element 1.2 | ... | Element 1.3 ... | |

... 

| Element 1 | | |
|---|---|---|
| ELEMENT_ID | Size | Value |

| 1...<ultd.> Byte | 1...<ultd.> Byte | <Size> Byte |
|---|---|---|

| 1...<ultd.> Byte | 1...<ultd.> Byte | <Size> Byte |
|---|---|---|

| EBML Header | Segment 1 | | | | | | | | Segment n |
|---|---|---|---|---|---|---|---|---|---|
| ... | Meta Seek Information *(opt.)* | Segment Information | Track *(opt.)* | Chapters *(opt.)* | Clusters *(opt.)* | Cueing Data *(opt.)* | Attachment *(opt.)* | Tags *(opt.)* | ... |

| <ultd> Byte | <ultd> Byte | <ultd> Byte |
|---|---|---|

| ELEMENT_ID | Size | EBML Version | EBML Read Version | EBMLMaxIDLength | EBMLMax SizeLength | DocType | DocType Version | DocTypeRead Version |
|---|---|---|---|---|---|---|---|---|

=1A45DFA3h

<Size> byte

## EBML vint Structure

| Width | Marker | Alignment | Tail |
|---|---|---|---|
| 0...n bits | 1 bit | 0...7 bits | 0...width-1 byte |
| =0000.... | =1 | | |

**1**xxx **xxxx** — Numbers from 0 to 126

**01**xx **xxxx xxxx xxxx** — Numbers from 0 to 16382

**001**x **xxxx xxxx xxxx xxxx xxxx** — Numbers from 0 to 2097151

## Matroska Tag Structure

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

*Segment*

| Tags (optional) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Tag | | | | | | | | | |
| Targets | | | | SimpleTag | | | | SimpleTag | |

| TrackUID or EditionUID or ChapterUID or AttachmentUID *(optional)* | ... | TrackUID or EditionUID or ChapterUID or AttachmentUID *(optional)* | Target Type Value | Target Type | Tag Name | TagLanguage *(optional)* | TagDefault *(optional)* | TagString or TagBinary | ... | Tag Name | TagLanguage *(optional)* | TagDefault *(optional)* | TagString or TagBinary | ... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <ultd.> Byte | | | | | <ultd.> Byte | 3..7 Bytes | 1 Bit | <ultd.> Byte | | <ultd.> Byte | 3..7 Bytes | 1 Bit | <ultd.> Byte | |