# SM File Format

## File Structure

* Note: SM Header = SM Signature + SM Metadata

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Order** | **0** | **1** | **2** | **3** |
| **Item** | [SM Signature](#_SM_Signature) | [SM Metadata](#_SM_Metadata) | [SM Vertex Data](#_SM_Vertex_Data) | [SM Index Data](#_SM_Index_Data) |

## SM Signature

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Byte(s)** | **0** | **1** | **2** | **3** |
| **Value** | 0x53  uint8\_t | 0x4D  uint8\_t | 0x00  uint8\_t | 0x00  uint8\_t |

## SM Metadata

|  |  |  |
| --- | --- | --- |
| **Byte(s)** | **0 – 3** | **4 – 7** |
| **Value** | Vertex Count  uint32\_t | Index Count  uint32\_t |

## SM Vertex Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Byte(s)** | **0 – 31** | **32 – 63** | **64 – …** |
| **Value** | Vertex:0  [Vertex](#_Vertex) | Vertex:1  [Vertex](#_Vertex) | Vertex:2  [Vertex](#_Vertex) |

## Vertex

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Byte(s)** | **0 – 3** | **4 – 7** | **8 – 11** | **12 – 15** | **16 – 19** |
| **Value** | Position X  float | Position Y  float | Position Z  float | Texture X  float | Texture Y  float |
| **Byte(s)** | **20 – 23** | **24 – 27** | **28 – 31** |
| **Value** | Normal X  float | Normal Y  float | Normal Z  float |

## SM Index Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Byte(s)** | **0 – 3** | **4 – 7** | **8 – …** |
| **Value** | Index:0  uint32\_t | Index:1  uint32\_t | Index:n  uint32\_t |