



XVD File Format

Start Offset	Subsection Offset	Size	Section Description			
HEADER SIGNATURE						
0x000	0x00	0x200	Microsoft RSA signature of the hash of the header			
HEADER						
0x200	0x00	uint64	"MSFT-XVD" Magic			
	0x08	uint32	Volume Flags			
	0x0C	uint32	Format Version			
	0x10	int64	Time of Creation of the file			
	0x18	uint64	Drive Size			
	0x20	16 bytes	ContentID			
	0x30	16 bytes	UserID			
	0x40	32 bytes	Top Hash of the Hash Tree			
	0x60	32 bytes	Hash of XVC(?) pre hash tables			
	0x80	uint32	XVD Type (Fixed / Dynamic)			
	0x84	uint32	XVD Content Type			
	0x88	uint32	Embedded XVD Length			
	0x8C	uint32	User Data Length			
	0x90	uint32	XVC Data Length			
	0x94	uint32	Dynamic Header Length			
	0x98	uint32	Block Size (always 0x000AA000)			
	0x9C	24 bytes each	XvdExtEntry Array (0..3)			
	0xFC	uint16 each	Capabilities Array(0..7)			
	0x10C	0x20	PECatalogHash			
	0x12C	0x10	EmbeddedXVD's PDUID			
	0x13C	0x10	Reserved			
	0x14C	0x20	KeyMaterial			
	0x16C	0x20	Persistent Local Storage Hash			
	0x18C	0x10	Sandbox ID			
	0x19C	0x10	Product ID			
	0x1AC	0x10	Build ID			
	0x1C2	uint16 each	PkgVer1	PkgVer2	PkgVer3	PkgVer4
	0x1C4	uint16 each (total 4 * 4 * uint16)	PECatalogCap (16)			
	0x1E4	0x80 (4 * 32)	PECatalogs			
	0x264	uint32	Writeable Expiration Date			
	0x268	uint32	Writeable Policy Flags			
	0x26C	uint32	Persistent Local Storage Size			
	0x270	uint8	Windows 10 MutableDataPageCount			
	0x271	uint8	Windows 10 Unknown			
0x272	0x10	Unknown				
0x282	0xA	Reserved				
0x28C	int64	Sequence Number				
0x294	uint64	Required Xbox System Version				
0x29C	uint32	OdkIndex / OdkID				
0x2A0	0xB54	Reserved				
0xDF4	uint32	Resilient Data Offset				
0xDFC	uint32	Resilient Data Length				
EMBEDDED XVD [OPTIONAL]						
0xE00	Optional additional XVD. Mostly unused except for games (XVC files).					<
USER DATA [OPTIONAL]						
0xE00	Optional section that can contain extra data. Contains the VBI bootloader in XVD that are of type SystemOS					<
HASH TREE [OPTIONAL]						
0xE00	Tree-like data structure used for integrity					<
PERSISTENT LOCAL STORAGE [OPTIONAL]						
0xE00	Optional section that might contain writable data. No use cases discovered (Size always 0)					<
Actual XVD Data // Bare virtual disk						
0xE00	0x0	Only exists if XvdType is dynamic	BAT (Block Allocation Table)			
	0x?	Variable. First sector is just read from the start of the disk. The rest are read from the BAT	NTFS Partition(s)			



(u)int8: 1 byte

(u)int16: 2 bytes

(u)int32: 4 bytes

(u)int64: 8 bytes