

ProDiscover[®] Image File Format

The ProDiscover[®] Image File consists five parts as described below.

1. Image File Header
2. Image Data Header
3. Image Data
4. Array of Compressed Block sizes
5. I/O Log Errors

1. Image File Header

The first 16 bytes of each image file contain an image file header containing image signature and version number.

Image File Header Structure

Data Type	Size in Bytes	Name of the Data Member	Description
Char	12	m_strSign	Image Signature
DWORD	4	m_nVersion	Image Version Number

2. Image Data Header.

The Image File Header is followed by a 653 byte Image Data Header containing various user entered information about the image captured.

The Structure of Image Data Header.

Data Type	Size in Bytes	Name of the Data Member	Description
Char	20	m_strImageNum	Image Number
BOOL	1	m_bCompression	Image Compression
Char	24	m_strPassword	Image Password
Char	24	m_strTechnicianName	Name of the Technician
Char	400	m_strDescription	Image Description
Structure DFTTime	9	m_CapturedTime	Image Captured Time
Structure DFTTime	9	m_SystemTime	Image System Time
BOOL	1	m_bIsPhysical	Is it a Physical Image or not
Char	16	m_strSourceDisk	Name of the Source Disk
Char	25	m_strHardDiskMake	Hard disk make string
LONGLONG	8	m_nImgDataSize	The original Data size / Compressed Data size
DWORD	4	NErrInfoSize	Size of the I/O Log Errors
BYTE	1	m_chChecksumType	Type of the Checksum (MD5 or SHA1)
BYTE	48	m_strChecksum	The calculated Checksum
WORD	2	m_nBytesPerSector	Number of bytes per Sector
WORD	2	m_nSectorsPerCluster	Number of Sectors per Cluster
DWORD	4	m_nStartSectorOf1stCluster	Starting Sector number of Cluster
DWORD	4	m_nTotalSectors	Total number of Sectors
DWORD	4	m_dwATAStartsAt	The starting address of ATA Protected Area. -1 if no protected area exists
DWORD	4	m_nFreeSectors	Total number of free Sectors
DWORD	4	m_nBadSectors	Total number of Bad Sectors
DWORD	4	m_nTotalClusters	Total number of Clusters
DWORD	4	m_nFreeClusters	Total number of free clusters
DWORD	4	m_nBadClusters	Total number of Bad Clusters
Int	4	m_nTimeZoneIndex	The index of the Time zone information.
BOOL	4	m_bIsDaylightActive	TRUE if summertime is active FALSE if not.
Char	12	m_strFileSystemType	File System Type
DWORD	4	m_nBlocks	Number of Compressed Blocks
Char	3	Unused	Unused disk space

3. Image Data

The third part of the image file is the image data, which will be a single block or an array of blocks if compressed. Each compressed block corresponds to 1MB of uncompressed data.

4. Array of Compressed Block sizes

If the image file is not compressed array of compressed block sizes will not be available. The Image Data is immediately followed by an Array of LONGs (LONG blockSize[m_nBlocks]). Each LONG corresponds to the compressed size of the block. The size of the array will be the number of compressed blocks.

5. I/O Log Errors

The last part of the image file contains any I/O errors encountered during image capture. The size of this I/O log errors depends on the number of errors occurred and the type of the error messages. The size of this image file section is as described in the Image Data Header.