Image file format

1. JPEG

    - JPEG stands for "Joint Photographic Experts Group". It's a standard image format for containing lossy and compressed image data. Despite the huge reduction in file size JPEG images maintain reasonable image quality. This unique compression feature allows JPEG files to be used widely on the Internet, Computers, and Mobile Devices.

    - Published date: September 18, 1992

    - Size: maximum image size of 65,535×65,535 pixels

    - Software used to open: web browser, like Chrome or Firefox, and Microsoft programs, photo viewer and Paint application.

2. GIF

    - Stands for "Graphics Interchange Format." GIF is an image file format commonly used for images on the web and sprites in software programs. Unlike the JPEG image format, GIFs use lossless compression that does not degrade the quality of the image. However, GIFs store image data using indexed color, meaning a standard GIF image can include a maximum of 256 colors.

    - Published date: 15 June 1987

    - Size: no bigger than 1MB

    - Software used to open: Adobe's Photoshop Elements and Illustrator programs, CorelDRAW, Corel PaintShop Pro, ACD Systems' Canvas and ACDSee, Laughingbird's The Logo Creator, Nuance's PaperPort and OmniPage Ultimate, and Roxio Creator NXT Pro

3. Exif

    - Exchangeable image file format (officially Exif, according to JEIDA/JEITA/CIPA specifications) is a standard that specifies the formats for images, sound, and ancillary tags used by digital cameras (including smartphones), scanners and other systems handling image and sound files recorded by digital cameras.

- Published date: 1995

- Size: 64 kB

- Software used to open: Adobe Photoshop 2020 Adobe Photoshop Elements 2020 Corel PaintShop Pro Axel Rietschin FastPictureViewer Other picture viewer

4. TIFF

- Stands for "Tagged Image File Format." It is a graphics file format created in the 1980s to be the standard image format across multiple computer platforms. The TIFF format can handle color depths ranging from 1-bit to 24-bit.

- Published date: 1986

- 32-bit offsets, which limits file size to around 4 GiB

- Software used to open: Geosoft Oasis montaj, ESRI ArcGIS Desktop, or GDAL Adobe Photoshop

5. BMP

- BMP is a simple raster graphics image file format designed to store bitmap digital images independently of a display device, originally and primarily on Microsoft Windows and OS/2 operating systems.

- Published date: 1995

- Size: 4GB

- Software used to open: universal file viewer like File Magic

6. PNG

- PNG stands for "Portable Graphics Format". It is the most frequently used uncompressed raster image format on the internet. This lossless data compression format was created to replace the Graphics Interchange Format (GIF). ... Like GIF images, PNG also have the ability to display transparent backgrounds.

- Published date: March 1997

- Size: 402KB

- Software used to open: Adobe Photoshop FileViewer Plus 4 FastStone XnView IrfanView

7. WebP

- WebP is a modern image format that provides superior lossless and lossy compression for images on the web. Using WebP, webmasters and web developers can create smaller, richer images that make the web faster. WebP lossless images are 26% smaller in size compared to PNGs

- Published date: 2010

- file sizes that are around 30% smaller than JPEG

- Software used to open: GIMP, ImageMagick, or Microsoft Paint

8. HEIF

- High Efficiency Image File Format (HEIF) is a container format for individual images and image sequences. The standard covers multimedia files that can also include other media streams, such as timed text, audio and video.

- Published date: 1992

- Size: size 209 bytes

- Software used to open: Adobe Lightroom Apowersoft Photo Viewer File Viewer Plus CopyTrans

9. CFG

10. PPM

- A PPM file is a 24-bit color image formatted using a text format. It stores each pixel with a number from 0 to 65536, which specifies the color of the pixel.

- Published date: August 1st, 1994

- Size: 73,848 bytes

- Software used to open: ACDSee Classic EditPlus 5.3.3370 Paint Shop Pro 3.12 IrfanView 4.57 Adobe Photoshop 2021 22.2

Video file format

1. WebM

   - WebM is an open, royalty-free, media file format designed for the web. WebM defines the file container structure, video and audio formats. WebM files consist of video streams compressed with the VP8 or VP9 video codecs and audio streams compressed with the Vorbis or Opus audio codecs.

   - Published date: June 14, 1996

   - Size: up to 200 MB

   - Software used to open: Google Chrome, Opera, Firefox, and Edge VLC player Windows Media Player 12

2. Flash Video

   - Flash Video is a container file format used to deliver digital video content (e.g., TV shows, movies, etc.) over the Internet using Adobe Flash Player version 6 and newer. Flash Video content may also be embedded within SWF files. There are two different Flash Video file formats: FLV and F4V.

   - In November 1996

   - 3-4 times bigger than . Mp4 files

   - Software used to open: Adobe Flash Player and web browser plugin or one of several third-party programs.

3. AVI

   - An AVI (Audio Video Interleaved) file is a sound and motion picture file that conforms to the Microsoft Windows Resource Interchange File Format (RIFF) specification. AVI files (which end with an . avi extension) require a special player that may be included with your Web browser or may require downloading.

   - Published date: November 1992

- Size: limits file size to 2 GB

- Software used to open: VLC Player

4. VOB

- VOB (Video Object) is the container format in DVD-Video media. VOB can contain digital video, digital audio, subtitles, DVD menus and navigation contents multiplexed together into a stream form. Files in VOB format may be encrypted.

- Published date: 18 April 2012

- Size: one GB

- Software used to open: VLC Media Player GOM Player, and Potplayer

5. F4V

- A file with the F4V file extension is a Flash MP4 Video file, sometimes called an MPEG-4 Video file, that's used with Adobe Flash and based on the Apple QuickTime container format. It's similar to the MP4 format.

- 3 December 2007

- Max file size 1GB

- Software used to open: VLC, Flash Player (as of Version 9 Update 3), and Animate

6. RealMedia

- RealMedia is a proprietary multimedia container format created by RealNetworks. ... Typically these streams are in CBR (constant bitrate), but a container for VBR (variable bitrate) streams, named RMVB (RealMedia variable bitrate), has been developed.

- Published date: April 3, 1995

- Size: file size can be up to 200M

- Software used to open: Eltima Elmedia Player or GRETECH GOM Player VideoLAN VLC media player

7. Windows Media Video

- Windows Media Video (WMV) is a series of video codecs and their corresponding video coding formats developed by Microsoft. ... WMV consists of three distinct codecs: The original video compression technology known as WMV, was originally designed for Internet streaming applications, as a competitor to RealVideo.

- Published date: 1999

- Software used to open: Windows Media Player, RealPlayer, MPlayer, Media Player Classic, VLC Media Player and K-Multimedia Player

8. AMV video format

- AMV files are compressed video files of a typically very low resolution. These videos can have a resolution between 94x64 and 160x120, which perfectly fits the screens of the target players. These players often come with additional software which allows AMV files to be opened and played on a computer as well.

- Published date: 1982

- Size: a 30-minute video will be compressed into 80 MB

- Software used to open: MTV Movie File

9. MPEG

- Stands for "Moving Picture Experts Group." MPEG is an organization that develops standards for encoding digital audio and video. MPEG-2 – Standards for digital television and DVD video. ... MPEG-4 – Multimedia standards for the computers, mobile devices, and the web.

- Published date: August 1993

- 4095×4095 (12 bits)

- Software used to open: Windows Media Player, iTunes, QuickTime, and VLC Media Player

10. MKV

- An MKV file is a video file saved in the Matroska multimedia container format. It supports several types of audio and video codecs and may include . SRT, ... USF (Universal Subtitle Format), or VobSub subtitles.

MKV files are typically used for storing short video clips, TV shows, and movies.

- Published date: 6 December 2002

- Size: 1280x720, that is 7.0 GB

- Software used to open: MPV, MPC-HC, KMPlayer, DivX Player, MKV File Player, or The Core Media Player.

Sound file format

1. .3gp

   - A 3GP file is a multimedia file saved in an audio and video container format developed by the 3rd Generation Partnership Project (3GPP). It stores video and audio streams that are transmitted between 3G mobile phones and over the Internet. 3GP file open in Apple QuickTime Player 10.5.

   - Published date: 18 May 2007

   - Software used to open: VLC Media Player RealPlayer

2. .aa

   - AA stands for audible audio. Files that contain the . aa file extension normally contains audio audio books. The AA file format allows for the storage of spoken audio words, chapter markers, bookmarks and other audio book features. AA files are commonly used on iPods, Kindles and other portable media devices.

   - Published date: 1997

   - Software used to open: Audible AudibleManager, Nero 11, RapidSolution Tunebite 9, SoundTaxi Media Suite and TuneCab in Microsoft Windows-based systems

3. .aac

   - AAC (Advanced Audio Coding) refers to digital audio coding standards that represent audio files based on lossy audio compression. ... AAC achieves better sound quality as compared to MP3 at the same bit rate. It

was defined in MPEG-2 Part 7 (ISO/IEC 13818-7), and in an updated form in MPEG-4 Part 3 (ISO/IEC 14496-3).

- Published date: 1997

- Size: Encoding Rate: 128K then File Size: 4.0MB

- Software used to open: VLC, Media Player Classic (MPC-HC), Windows Media Player, MPlayer, Audials One, and likely many other multi-format media players

4. .aax

- AAX is a file format used by Audible to store audio books. It's the enhanced and improved form of the AA file format.

- Published date: June 2012

- Size: up to 200M

- Software used to open: Apple iTunes

5. .au

- The Au file format is a simple audio file format introduced by Sun Microsystems. The format was common on NeXT systems and on early Web pages. Originally it was headerless, being simply 8-bit μ-law-encoded data at an 8000 Hz sample rate. Hardware from other vendors often used sample rates as high as 8192 Hz, often integer multiples of video clock signal frequencies. Newer files have a header that consists of six unsigned 32-bit words, an optional information chunk and then the data (in big endian format).

- Published date: September 1996.

- Size: maximum size of 24 bytes

- Software used to open: Apple QuickTime Player, RealNetworks RealPlayer and Adobe Audition CS6

6. .m4a

- M4A is a file extension for an audio file encoded with advanced audio coding (AAC) which is a lossy compression. M4A was generally intended

as the successor to MP3, which had not been originally designed for audio only but was layer III in an MPEG 1 or 2 video files. M4A stands for MPEG 4 Audio.

- Published date: 2001

- Size: MP3 song needs to be encoded around 192Kbps, while the M4A song is enough with 128Kbps

- Software used to open: iTunes, Quicktime, Windows Media Player, and Roxio Popcorn, Toast and Creator

7. .m4b

- An M4B file is similar to a . M4A file, but it is saved as an audiobook instead of a standard music file. This means it can include bookmarks and other features supported by audiobook players. The M4B format is used by the iTunes Store as the standard format for distributing downloadable audiobooks.

- Size: 320 mb limit

- Software used to open: Apple iTunes

8. .opus

- An OPUS file is an audio file created in the Opus format (also called "Ogg Opus"), a lossy audio format developed for Internet streaming. It uses both SILK (used by Skype) and CELT (from Xiph.Org) codecs and supports variable bit rates from 6 kb/s to 510 kb/s.

- Software used to open: VLC Media Player

9. .mp3

- Stands for "MPEG Audio Layer-3." MP3 is a compressed audio file format developed by the Moving Picture Experts Group (MPEG). A typical MP3 file sounds similar to the original recording but requires significantly less disk space.

- Published date: November 26, 1996

- Size: bitrate of 128 kbps and a sample rate of 44.1 kHz

- Software used to open: IrfanView 4.57 Xilisoft Video Converter Ultimate 7.7.3.20131014 VLC Media Player 3.0.11

10. .wav

- Waveform Audio File Format (WAVE, or WAV due to its filename extension; pronounced "wave") is an audio file format standard, developed by IBM and Microsoft, for storing an audio bitstream on PCs. It is an application of the Resource Interchange File Format (RIFF) bitstream format method for storing data in "chunks", and thus is also close to the 8SVX and the AIFF format used on Amiga and Macintosh computers, respectively. It is the main format used on Microsoft Windows systems for raw and typically uncompressed audio. The usual bitstream encoding is the linear pulse-code modulation (LPCM) format.

- Published date: August 1991

- Size: 10 MB per minute of CD quality audio

- Software used to open: Windows Media Player, VLC, iTunes, Groove Music, Winamp, Clementine, XMMS, and other popular media player applications