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Data and file types

+Find 10 file types each for video, image and sound:

I. Images

1. JPEG/JFIF (Joint Photographic Expert group; .jpeg)

- Created in 1992

- JPEG is a lossy compression method, it applies lossy compression to images, which can result in a significant reduction of the file size while retaining most of the details inside the image.

- Size : 64k x 64k Pixels

- Programs that support JPEG: Web browsers (Chrome, Firefox, Edge..), Microsoft programs (Photo viewer, paint), Adobe apps (Photoshop, Illustrator)…

2. JPEG 2000(.jp2)

- Created in 2000, a successor to JPEG

- Size: Beyond 64k x 64k pixels (6gb)

- JPEG 2k is the successor to JPEG. It compresses pictures better, retains more details, but requires more computational power to process. It isn't as common as JPEG, but it's used in professional movie editing and distribution.

- Programs that support JPEG 2K : Safari(MacOS), Firefox (ios), Facebook, Mobile safari (safari for ios)…….

3. GIF (Graphics Interchange Format; .gif):

- Created in 1987

- Used to store graphics with few colors(Simple diagrams, shape, logo, cartoon-style images) and provides image animation effects, sacrificing compression ratio for the animation to work.

- Size: 500 x 500 pixels (1MB <)

- Programs that support GIFs: Almost universal support, supported by 99% of programs.

4. BMP(Windows Bitmap, .bmp)

- Created in 1995

- BMP Handles graphic files within Microsoft windows OS. It is an uncompressed file, making it large and lossless. This file is widely accepted in windows programs.

- Size: Below 4MB

- Supported Programs: Windows image viewer, Photoshop , Illustrator, CorelDRAW.....

5. PNG (Portable Network Graphics, .png):

- Created in 1996

- Was created as a free & open source alternative to GIF. It supports 8 bit palette images, 24-bit truecolor or 48-bit truecolor. It is well suited for storing images because of it's lossless compression and designed to work well in online viewing applications.

- Supported programs : Web browsers (Chrome, Firefox, Opera….)

6. WebP(.webp)

- Created in 2010

- WebP is an open image format that uses both lossless and lossy compression. It was designed by google to reduce image file size, speeding up loading times for web pages.

- Supported Programs: Web Browsers(Chrome, Firefox, Opera,……), Graphic editors (Photoshop, Gimp, Microsoft Photos).

7. PGF(Progressive Graphics File, .pgf)

- Released in 2000

- PGF was created to improve upon and replace JPEG format, and it is prioritized on speed over compression ratio. It supports a wide array of color models: Greyscale, RGB, ARGB, CMYK to name a few.

- Supported Programs: PhotoPad image editor (Win), GraphicConverter (MacOS), libPGF(Linux).

8. Drawn File(.draw)

- Created in the 1990s

- Drawn file is a type of file used to preserve image drawing.

- Supported Programs: CorelDRAW, Microsoft Picture IT!(Windows), AppleWorks (MacOS)

9. FITS (.fit)

- Released in 1981

- FITS format is designed specifically for astronomical data. It is designed with backwards compatibility in mind. It is also often used to store non-image data, such as spectra, photon lists, data cubes or structured data.

- Supported programs: The ESA/ESO/NASA FITS Liberator 3

10. JPEG XR (JPEG Extended Range, .jxr)

- Release in 2009

- Used for continuous tone photographic images, based on tech that was originally developed and patented by Microsoft (HD Photo). It supports both lossy and lossless compression.

- Software Support: Windows Vista, 7, 8, 10 and Windows web browsers (Edge and Internet Explorer)

II. Video file types

1.WebM(.webm):

- Created in 2010

- A royalty- free format created for HTML5 video.

- Software support: Firefox, Chrome, Opera , Adobe apps, VLC player…..

2. Flash video(.FLV)

- Created in

- Use to deliver digital video content using adobe flash v.6 +

- Supported software: VLC Media player, Windows media player……

3.GIF(.gif)

- Created in

- Simple animation, widely supported by applications

- Programs that support GIFs: Almost universal support, supported by 99% of programs.

4. AVI (Audio Video Interleave .avi)

- Created in 1992

- Introduced by Microsoft was part of its video for windows software. AVI can contain both audio and video data in a file container, allowing synchronous audio +video playback.

- Supported software : Windows media player, VLC, GOM…..

5. AMV video format (.amv)

- Unknown origin, used by Chinese-made portable mp3 players.

- AMV is a proprietary video file format produced for MP4 players & S1 MP3 Players with video playback.

- Supported software: VLC media player, KMPlayer, AMV player, MPC-HC

6.M4V(.m4v)

- Published in 2001 by apple

- Used in itunes. It is similar to MP4 format and is protected by a DRM.

- Supported software: Itunes, VLC media player, Media player classic….

7.MPEG Transport stream (.MTS, .M2TS, .TS)

- Created In 2003

- Size : 25GB (limited by disk)

- It is used for multiplexing audio, video and other streams.Commonly used for high definition video on blu-ray disc.

- Software support : ALLPlayer, MPlayer, VLC, PotPlayer…..

8. Windows media video (.wmv)

- Created in 2003

- It is a series of video codes and their corresponding video coding formats developed by Microsoft.

- Software support : Windows media player, VLC, GOM , MPC- HC….

9.MPEG – 1(.mpg, .mp1, .mp2, .mp3….)

- Created in

- It is a standard for lossy compression of video and audio, designed to compress VHS quality raw digital video and CD audio down to about 1.5Mb/s without excessive quality loss.

- Software support: Windows media player, VLC , GOM…….

10. Ogg (.ogg)

- Created in 1993

- It is a free, open container format maintained by the xiph.org foundation. Designed to provide for efficient streaming and manipulation of high quality digitial multimedia.

- Software support : VLC, Windows media player, Mplayer, Adobe audition, Google drive…

III. Sound file types

1. Audible (.aa)

- Created by amazon in 1995
- It's a low-bitrate audiobook container format with DRM, containing audio encoded as either MP3 or the ACELP speech codec.
- Size : depending on how long the audio is
- Software support : Amazon audible app

2. MPEG Layer III audio (.mp3)
   - Created in
   - Most common sound file format used today.
   - Size : depending on how long the audio is
   - Software support: VLC media player, Windows media player, GOM ….
3. .webm
   - Released in 2010
   - It is a royalty-free alternative to use in the HTML5 Video and audio elements. The development of the format is sponsored by google.
   - Size :
   - Software support : Mozilla firefox , Opera, Google Chrome …..
4. .ogg

- Created in 1993

- It is a free, open container format maintained by the xiph.org foundation. Designed to provide for efficient streaming and manipulation of high quality digitial multimedia.

- Software support : VLC, Windows media player, Mplayer, Adobe audition, Google drive…

5. GSM- FR (Full rate , .gsm)

- Created in 1987

- Designed for telephony use in Europe. It makes a good compromise between file size and quality.

- Software support : Phones

6 .wma (Windows Media Audio format)

- Created in

- Created by Microsoft and designed with digital rights management(DRM) abilities for copy protection.
- Software support: Windows Media Player, VLC, iTunes….

7. Raw audio format (.raw)

- Created in 2004

- RAW audio is an audio format for storing uncompressed audio in raw form.

- Software support: Winamp (Windows), Audio Overload (MacOS)

8. FLAC (.flac)

- Created in 2000

- FLAC is an audio coding format for lossless compression of digital audio. Digital audio that is compressed by flac's algorithm can typically be reduced to between 50-70% of original size.

- Software support : VLC,GOM player, GRIP , VLC media player.

9.Monkey's audio (.ape)

- Created in

- It is an algorithm and file format for lossless audio data compression. It does not discard data during the process or encoding.

- Size: typically reduced to about half of the original size.

- Software support : Winamp

10, Advanced Audio coding(.aac)

- Created in 1974
- AAC is an audio coding standard for lossy digital audio compression. Designed to be the successor of the MP3 format, as it achieves higher sound quality than MP3 at the same bitrate.
- Size : Depending on duration of audio
- Software support: VLC media player, Windows media player, Mplayer…