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that can be handled using plug-ins. PDF combines three technologies: An equivalent subset of the PostScript page description programming language but in declarative form, for generating the layout and graphics. A font-embedding/replacement system to allow fonts to travel with the documents. A structured storage system to bundle these elements and any associated content into a single file, with data compression where appropriate. PostScript language PostScript is a page description language run in an interpreter to generate an image, a process requiring many resources. It can handle graphics and standard features of programming languages such as if statements and loop commands. PDF is largely based on PostScript but simplified to remove flow control features like these, while graphics commands equivalent to lineto remain. Historically, the PostScript-like PDF code is generated from a source PostScript file. The graphics commands that are output by the PostScript code are collected and tokenized.[clarification needed] Any files, graphics, or fonts to which the document refers also are collected. Then, everything is compressed to a single file. Therefore, the entire PostScript world (fonts, layout, measurements) remains intact.[citation needed] As a document format, PDF has several advantages over PostScript: PDF contains tokenized and interpreted results of the PostScript source code, for direct correspondence between changes to items in the PDF page description and changes to the resulting page appearance. PDF (since version 1.4) supports transparent graphics; PostScript does not. PostScript is an interpreted programming language with an implicit global state, so instructions accompanying the description of one page can affect the appearance of any following page. Therefore, all preceding pages in a PostScript document must be processed to determine the correct appearance of a given page, whereas each page in a PDF document is unaffected by the others. As a result, PDF viewers allow the user to quickly jump to the final pages of a long document, whereas a PostScript viewer needs to process all pages sequentially before being able to display the destination page (unless the optional PostScript Document Structuring Conventions have been carefully compiled and included). PDF 1.6 and later supports interactive 3D documents embedded in a PDF file: 3D drawings can be embedded using U3D or PRC and various other data formats. File format A PDF file is organized using ASCII characters, except for certain elements that may have binary content. The file starts with a header containing a magic number (as a readable string) and the version of the format, for example %PDF-1.7. The format is a subset of a COS ("Carousel" Object Structure) format. A COS tree file consists primarily of objects, of which there are nine types: Boolean values, representing true or false Real numbers Integers

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