**BINARY PATCHING**

Patch the date in the file xxd.1

% echo "0000037: 3574 68" | xxd -r - xxd.1

% xxd -s 0x36 -l 13 -c 13 xxd.1

0000036: 3235 7468 204d 6179 2031 3939 36 25th May 1996

To patch a file means to modify it, with the connotation that the modification is generally small.

A patch is a series of instructions that describe how to modify a file or a set of files. In the unix world, a patch is usually the output of the diff command, describing changes in a text file. A patch in this sense describes the modifications in terms of adding, removing or modifying lines in the files. The patch utility applies these instructions to modify a file or set of files. It tries to be smart about applying multiple patches to the same file, as the first patch could cause changes that prevent the second one from being applies because the file is no longer in the expected state. Because diff and patch strongly base their operation on lines, they are not well-suited to binary files.

* xxd is a generic utility for working with binary files. One of its capabilities is to make modifications in a file. For example, the command xxd -r - xxd.1 means to apply the modifications described on standard input. The example patch (i.e. the modification instructions) 0000037: 3574 68 mean: starting at offset 0x37 (that's 55 in decimal), replace the next three bytes by 0x35, 0x74 and 0x68 (i.e. the three characters 5th).

A patch can also tack additional data on to the end. You can patch any type of file, whether it's text, binary, or whatever, because all files are streams of bytes when it comes down to it. Direct editing of a binary file in a hex editor (such as hexer) is sometimes called "manual" patching.

* The patch command does a similar thing, but it wants files in a "diff" format. You can make a diff file by saving the output of the diff command, which will compare two files and express the differences in said diff format. From reading the man page it looks like patch is meant more for changing text files than straight binary.
* Google Courgette tool looks like most efficient tool for binary diff patches

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\*\*ARCHIVOS CON TEXTO USAR diff y patch (ya vienen en el SO)

>diff oldfile.txt newfile.txt (muestra diferencias… también sirve con directorios)

>diff -u oldfile.txt newfile.txt > parche.patch

>patch < parche.patch

(De texto nos referimos a que contenga texto, puede ser un .java por ejemplo).

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\*\*PARA BINARIOS (multimedia y más) USAR bsdiff y bspatch

>bsdiff old new parche.patch

>bspatch old new parche.patch

(El new sólo tiene que ser un nombre, igual al old para que lo reemplace pq esta es la finalidad)

\*\*\*Este viene en un .tar.gz. En Ubuntu lo convertimos a .deb (instalador) con alien tool:

>sudo apt-get install alien

Luego:

>sudo alien -d paquete.tar.gz (y ejecutamos el instalador)

Manualmente:

>tar xvfz file.tar.gz (xpand verbose filling comprezed), si es sólo .tar usar xvf

Luego

>./configure (ejecuta el archivo configure)

>make (compile and build for your device)

>sudo make install (loads the program in its appropriate place)

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xdelta is another option.

make patch:

xdelta3.exe -e -s old\_file new\_file delta\_file

apply patch:

xdelta3.exe -d -s old\_file delta\_file decoded\_new\_file

It's available on the mac via homebrew: brew install xdelta