The BWA format describes the media's local density, which is roughly how many sectors fit in a given diameter.

The variation of that density is used by some copy protection schemes to detect the difference between an original cd and the backup.

Blindwrite Suite is the first copy tool able to fully extract and reproduce that density variations - thus is the first tool able to produce 1:1 copies of the most recent protection schemes.

!!! CAUTION !!!

Reproducing density variation on CD uses actually a technique that is VERY OUTSIDE the CD specs. Thus, in most CD readers, the resulting CD is recognized as the original CD, but is likely to contain errors. So, it is wiser to burn a CD WITHOUT the reproduced physical density (to install the game), and to burn a CD with it (to be identified by the protection as the original CD)

How to:

- 1 Extract the image of an original CD subcode extraction is not mandatory
- 2 Extract the media density table with the provided tool "BWABuilder"

Please note:

- * BwaBuilder is a tool with a timing precision of about 6 μS, which makes it VERY sensitive to CPU load. When BwaBuilder runs, avoid any other operation on your computer!
- * BwaBuilder works better with SLOW extraction speeds and without the screen refresh during extraction.
- * BwaBuilder may fail completely on some drives and produce wrong curves. Usually, a nice looking hyperbolic portion with up to 4 zones of "square waves" areas are a good sign. A few glitches are still acceptable.
- * Dumping the table may take a long time, up to 2 hours.
- 3 In BwaBuilder, save the BWA file to the same folder as the Blindwrite image file (BWI), and use the same base name. For example: if you have extracted SAMPLE.BWI with Blindwrite, save the density table as SAMPLE.BWA in the same folder.
- 4 Write the image file with Blindwrite, use a DAO PW writing mode (preferred), or DAO PQ (not extensively tested to date)
- 5 Insert the burned cd into a CD READER unit (not a writer, or use an ATIP hiding driver, like Insektors or CloneCd tray). The cd shall be identified as the original.

And don't forget to play only copies of CD's you have legally purchased....