

1983-3-15

DATABASE DESIGN

211

How about not storing any text per se in a text database, instead just store ^{record} numbers of words in an all-encompassing vocabulary file. If each word-record-number was held in 3×8 bit bytes, this would allow 4 million different words in the database - normally ample (only 1 million words in all English). E.g. each word in the text would occupy only 3 bytes. Now, ^{to} extract a good inversion replacement mechanism for searching.

1983-3-15

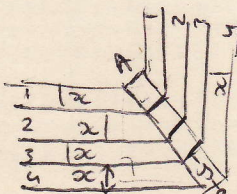
EFFICIENCY: POWER TRANSMISSION

Maybe the replacement to conventional metal power transmission cables lies in vacuum- or gas-filled tubes, like long fluorescent tubes. Since these are quite cool, they cannot lose too much ^{energy} as heat.

1983-3-9

OPTICAL FIBRE BEND

To achieve 90° bend in optical fibre, make disc of $\sqrt{2}$ times ~~radius~~-dimension fibres, placed on outside. disc needs to be of some ~~thickness~~ ^{thickness} fibre width, but $\sqrt{2}$ times cable width.



$y^2 = 2x^2$; $y = \sqrt{2}x$

