

account the "primitive" of kernels, as it seems to me, a tera-interface risks to become the basic user of energy for multi- kernel microprocessors. The Intel company, by the way, cites a digit of consumption of the 80- kernel development for a mark a little exceeding 1 teraFLOP – only 62 Vt, that how hardly not half the less consumption four- kernel Xeon X5355 of demonstrating productivity 50-60 gigaFLOP. Nothing surprising herein no. An engineering chip contains a 100 million of transistors only, while the same table Core 2 Duo disposes practically three times by the large number of transistors (due to hash-memory, obviously, which in a 80- kernel processor the minimum).

Additional information about descriptions of the 80- kernel processor Intel can be found out on the TG Daily site: area of crystal (matrix of processors 8 on 10) – 275 kv.mm; construction – LGA with 1248 contacts; frequency – 3.16 GHertz at tension of kernels 0.95 In (every kernel can become disconnected as far as unloading). From data of source, on frequency a 5.1 GHertz processor shows productivity about 1.63 teraFLOP, here the level of energy consumption grows how hardly not three times – to 175 Vt. On frequency a 5.7 GHertz productivity arrives at 1.81 teraFLOP, and the level of energy consumption rises to 265 Vt.

HEALTH, ENVIRONMENT AND ECONOMY

Доп. – Сапич І.В., Е-42

1. Today we have faced with the biggest problem of all humanity – the environmental pollution.
2. There are several ways to decide this problem:
 - * Better defined property rights.
 - * Taxes and tariffs on pollution.
 - * Quotas on pollution.
 - * Environmental regulations.
3. Environmental economics was a major influence for the theories of natural capitalism and environmental finance, which could be said to be two sub-branches of environmental economics concerned with

resource conservation in production, and the value of biodiversity to humans, respectively.

4. Thus, every country must choose the most suitable variant of solving this problem for itself and continue to fight with the environmental pollution.

WHAR ARE HOLLOGRAPHIC INFOEMATION CARRIERS?

Доп. – ЯНКОВ Д.С., ДМ-41

CD was the first optical store. First CD disk was created in 1980 only for music purpose. The capacity of one CD is near 700MB DVD was created in 1995. Rewritable disks were created in 2001. The capacity of single-ply DVD is 4,7GB that is near 6,7 times greater than CD.

Nowadays InPhase Technologies Corporation create a new type of storage called a HOLOGRAPHIC storage

The major challenge to creation holographic storage has been the development of a suitable storage medium. The scientists at Bell Labs worked on media and systems for seven years, and developed the solution that eluded other research teams.

It's likely to be one of the first commercial systems to use "holographic storage," in which bits are encoded in a light-sensitive material as the three-dimensional interference pattern of lasers.

Unlike CDs and DVDs, which store data bit by bit on their surfaces, holographic discs store data a page at a time in three dimensions, enabling huge jump in capacity and access speed.

Holographic storage could even compete with the magnetic hard drive as the computer's fundamental storage unit. And on a larger scale, corporate and government data centers could replace their huge storerooms of server magnetic-tape reels with the quiet drone of holographic disc drives.

But this is no ordinary recording process. The disc has more than 60 times the storage capacity of a standard DVD, while the drive writes about 10 times faster than a conventional DVD burner. That means the disc can store up to 128 hours of video, so you can store there near 100 films.