Introduction to Maxeler Computing

Veljko Milutinovic, vm@etf.rs

http://home.etf.rs/~vm

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SuperComputer Types (Pros & Cons)

- Control flow:

Compiling down to MCL (Machine Code Level)

- Data flow:

Compiling down to GTL (Gate Transfer Level)

- What we get?

Better speed/watt/size/$

- How we pay for these benefits?

More difficult programming

- For what applications is this good?

Write once, execute many: Geophysics, Banking, Google, …

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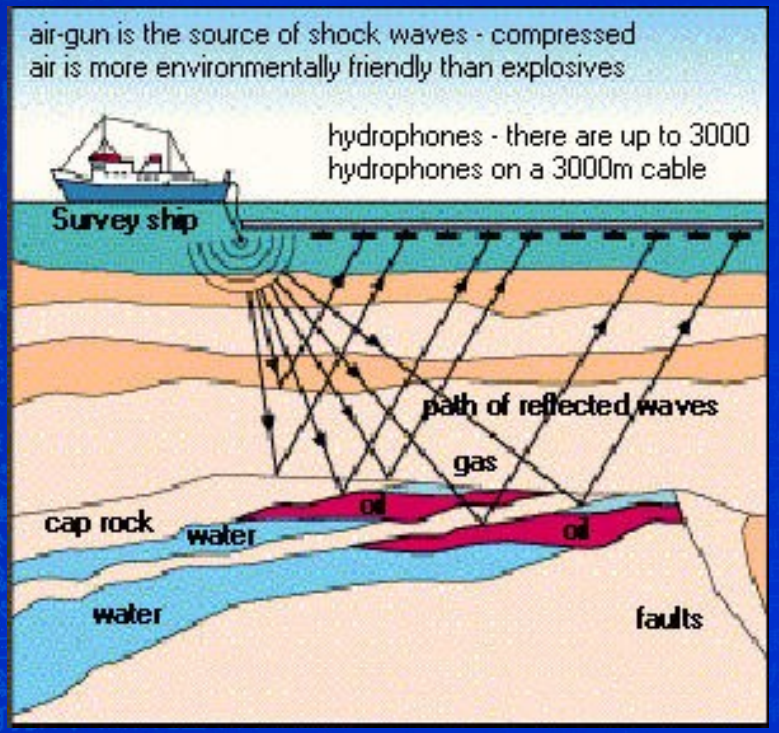
An Example of WORM: Oil Drilling



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An Example of WORM: Credit Transactions

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An Example of WORM: Social Mining

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History

- Serbia
- Vienna
- Technion
- Stanford
- AT&T
- Imperial College London
- Maxeler
- J.P. Morgan
- Schlumberger, Exxon, British Petrol, ENI, ...
- China, Japan, ...

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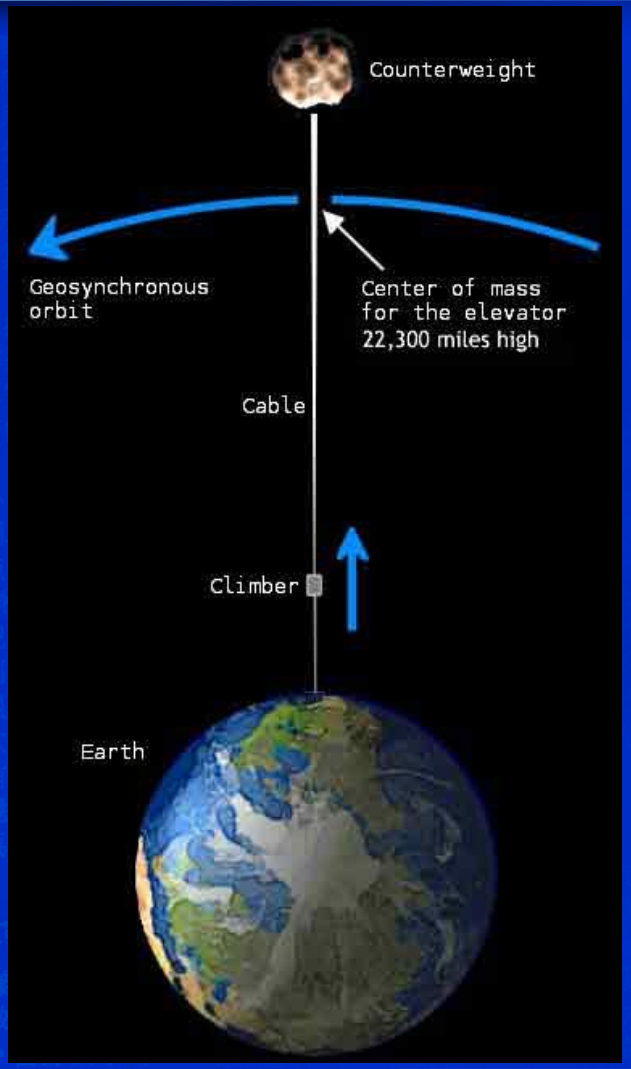
Future

- Fujii Labs
- China Exascale
- NASA
- NIST
- Centers of Excellence
- Programs for Universities



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