

High-speed engineering of high-speed software

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Traditional software engineering:

Design programming environment
to minimize programmer time.

Environment is now constant.

Write tons of software.

Software is now constant.

Try to improve the compiler
to minimize CPU time.

Oops, software doesn't work!

Engineering correct software:

Design programming environment
to encourage verification,
discourage bugs.

Subject to that constraint,
design programming environment
to minimize programmer time.

Environment is now constant.
Write tons of software.

Software is now constant.
Try to improve the compiler
to minimize CPU time.

Oops, software is too slow!

Engineering high-speed software:

Design programming environment
to encourage verification,
discourage bugs.

Subject to that constraint,
design programming environment
to minimize CPU time.

Subject to that constraint,
design programming environment
to minimize programmer time.

Environment is now constant.

Write software.