

## Who is the guy on the photo?

- Primož Gabrijelčič, [primoz@gabrijelcic.org](mailto:primoz@gabrijelcic.org)
- Born 1969, programming since 1983
- Working with Pascal since Turbo Pascal 3
- Working with Delphi since Delphi 1
- Hacking multithreaded code since 1999



## OTL is VCL for multithreading

- Simplifies programming tasks
- Componentizes solutions
- Allows access to the bare metal



Going doooooown?

# Parallel Programming with OmniThreadLibrary

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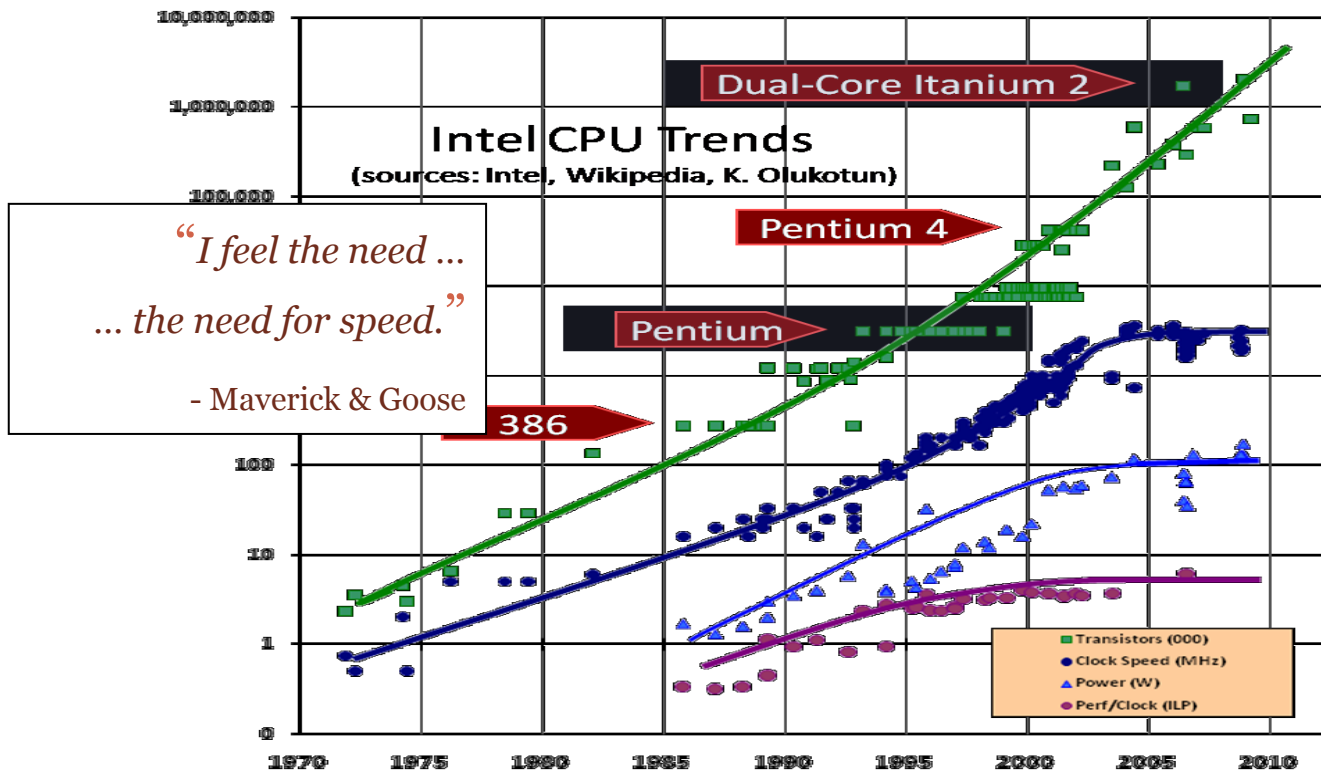
## OmniThreadLibrary is ...

- ... trying to make multithreading humanly possible
- ... providing *well-tested* components packed in *reusable* classes with *high-level* structured parallel programming support
- ... available at [otl.17slon.com](http://otl.17slon.com) and on [code.google.com](http://code.google.com)

*“As most (good) programmers, I don't like to write code -  
I like to write frameworks.”*

– Primož Gabrijelčič

## Why multithreading?



© Herb Sutter, <http://www.gotw.ca/publications/concurrency-ddj.htm>

# Parallel Programming with OmniThreadLibrary

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## **Be afraid. Be very afraid.**

- Designing parallel solutions is hard
- Writing multithreaded code is hard
- Testing multicore apps is hard
- Debugging multithreading code is ...



The Fly



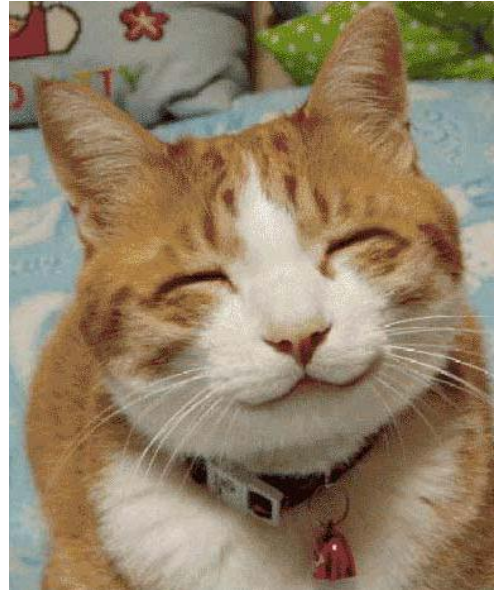
**SANITY**

Start multithreading and it's gone.

photo © Cheezburger.com

## OTL to the rescue!

- Reduces boilerplate code
- Focus on messaging
- Focus on tasks
- High-level tools
- There is no ~~spawn~~Synchronize



© The Cat's Meow

## Why should I care / about the Oh-Tee-El?

- Free as in air (© Theo de Raadt)
- Copies (nay, steals!) good ideas from everywhere
- Tested in several 24/7 server applications
- Actively developed
- Bugs are actively squashed



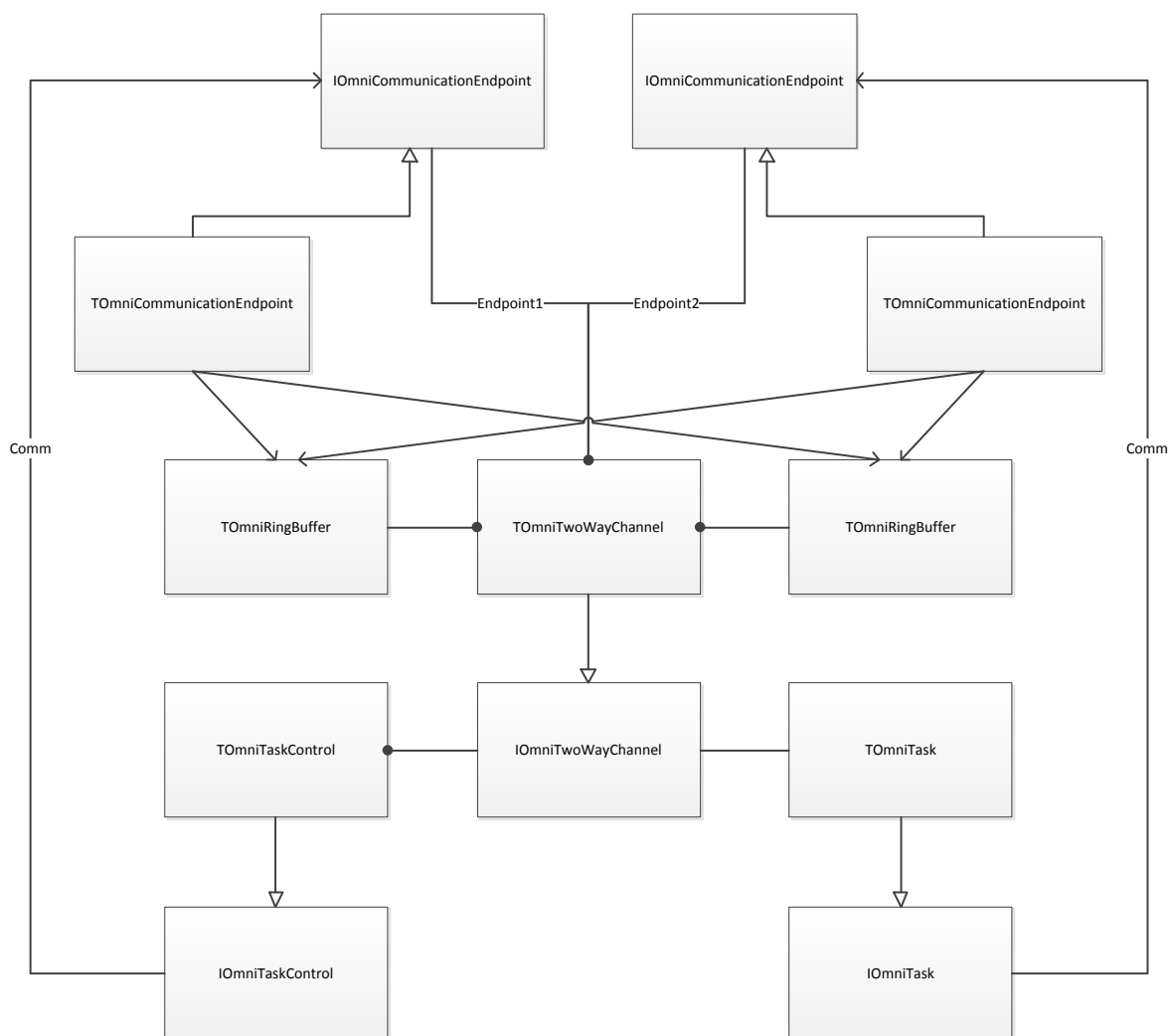
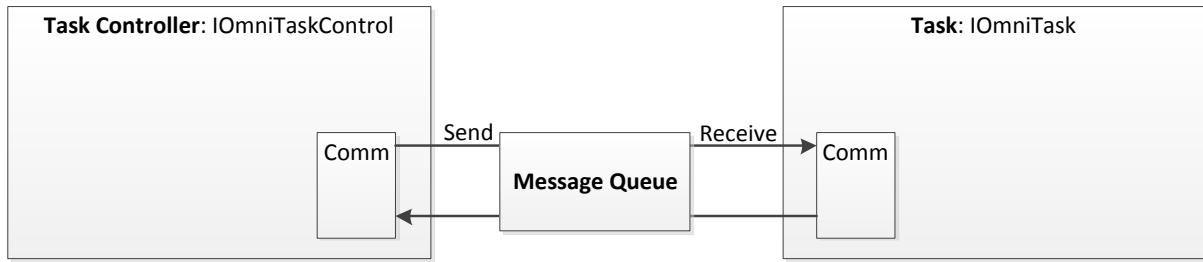


### **Much ado about Parallel.ForEach**

- It can consume: integer range, IOmniValueEnumerable (including TOmniBlockingCollection), IEnumerator, enumerable classes, custom provider
- Threadsafe by-block fetch
- Other features:
  - Cancellable
  - Configurable parallelization factor
  - Order preservation
  - NoWait

# Parallel Programming with OmniThreadLibrary

## Of tasks, controllers and queues



## **Keep in mind**

- Don't parallelize everything
- Rethink the algorithm
- Prove the improvements
- Test, test and test



**IS THERE ANYBODY  
OUT THERE?**

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