

Point, Counterpoint: nesc

Phil Levis (and, unimportantly, Buzz Lightyear)

NEST Retreat, Jan. 2003

Parameterized is cool



By Phil

About a month ago, I got a new computer here at my reception desk at the dentist's office, and, boy, does that thing have it in for me! I am not kidding. When it sees me coming, I swear, it must be all like, "Oh, goody, here comes Vicki... time to go on the fritz!" I mean, my computer seriously hates me!

Now, I'm not exactly a computer person. I've never been what you'd call "user-friendly" or anything. But, for the life of me, I can't think of what I did to make my computer despise me so much! Whoever set it up, instead of putting in anti-virus software, must have accidentally put in anti-*Vicki* software!

Let's get abstract



By Matt

Jesus Christ. Where should I start with this ignorant cow?

Actually, let's start with me. I am a brand-new, state-of-the-art Dell Dimension 4100, although, if all you had to go by was Vicki, you'd think my name was "Tweety Bird Sticker Receptacle." She's got me up like a 10-year-old girl's notebook.

Never mind that Dr. Glickman screwed up and bought this colossal ditz of a receptionist more computer than she could ever possibly need for record-keeping at a small dentist's office. (As if 40 unused gigs of hard drive are necessary to print Bobby Cloninger's mom a reminder that he's having that cavity filled on

Parameterized is Cool

- I like brackets []
- Compile-time binding of parameters
 - Simplifies programming
 - Constant propagation hidden
- Pass-through simplified

Abstract is Hot

- Compile-time state replication
 - How long is that queue?
 - How many copies of my service?
- One-of-binding
 - Promiscuous vs. for-me!
- I need more than one (packet objects)

Fire and Ice

Some say the world will end in fire,
Some say in ice.

From what I've tasted of desire
I hold with those who favour fire.
But if it had to perish twice,
I think I know enough of hate
To say that for destruction ice
Is also great
And would suffice

Abstract Tasks

```
abstract component SchedulerBasic() {  
    provides TaskBasic;  
}  
...  
TaskEntry taskQueue[_INSTANCES_];  
...  
components SchedulerBasic();  
...  
TinyDB.SendTask -> SchedulerBasic;  
...
```

Parameterized Tasks

```
interface TaskPriority {  
    acommand result_uncombined_t post();  
    event void run();  
}  
  
component SchedulerPriority {  
    provides TaskPriority[uint8_t priority];  
}
```

Point

- Different meanings
- Different usages
- Let's keep them distinct!
- I don't want a language monopoly

Post Script

- Matt is Bill Gates (embrace and extend!)