Point, Counterpoint: nesC

Phil Levis (and, unimportantly, Buzz Lightyear)
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Parameterized is cool

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

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)
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!)