Freie Universität Berlin

Parallele Sortierung

Björn Rathjen Patrick Winterstein
Freie Universität Berlin

Proseminar Algorithmen, SS14

Outline I

Outline II

mot

allgemein

fach

vorraussetzungen

Komparator

01 prinzip

aufb sort

sort in sortnet

nativ

Beschreibung Teil 1

- Aufgabe
- grundlegendes Prinzip
- Demonstration (kleines Beispiel)
- Veranschaulichung an einem 2^x Beispiel
- zeigen dass Aufgabe erfüllt wird

Beschreibung Teil 2

- Aufgabe
- grundlegendes Prinzip
- Demonstration (kleines Beispiel)
- Veranschaulichung an einem 2^x Beispiel
- zeigen dass Aufgabe erfüllt wird

Make Titles Informative. Use Uppercase Letters. Long Titles are Split Automatically.

- Use `itemize` a lot.
- Kurze Sätze benutzen.

Make Titles Informative.

You can create overlays. . .

- using the pause command:
  - First item.

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- using the pause command:
  - First item.
  - Second item.
- using overlay specifications:

- using the general uncover command:

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An old algorithm

```
int main (void)
{
  std::vector<bool> is_prime (100, true);
  for (int i = 2; i < 100; i++)
    if (is_prime[i])
      {
        std::cout << i << " ";
        for (int j = i; j < 100;
             is_prime [j] = false, j+=i);
      }
  return 0;
}
```

An Algorithm For Finding Primes Numbers.

```
int main (void)
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Note the use of `std::`.

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Example

- 2 is prime (two divisors: 1 and 2).
- 3 is prime (two divisors: 1 and 3).
- 4 is not prime (three divisors: 1, 2, and 4).

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Theorem

There is no largest prime number and, in addition,

$$\int_\Omega \nabla u \cdot \nabla v = -\int_\Omega u \Delta v + \int_{\partial\Omega} uvn$$

Proof.

1. Suppose p were the largest prime number.

4. Thus $q+1$ is also prime and greater than p. □

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The proof used *reductio ad absurdum*.

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Summary

- The first main message of your talk in one or two lines.
- The second main message of your talk in one or two lines.
- Perhaps a third message, but not more than that.

- Outlook
  - Something you haven’t solved.
  - Something else you haven’t solved.

For Further Reading I


A. Author.
Taschenbuch der Algorithmen.
Springer Verlag , 2008.


Tom Leighton.
Einführung in Parallele Algorithmen und Architekturen
Gitter, Bäume und Hypercubes.
Thomsom Publisching , 1997.