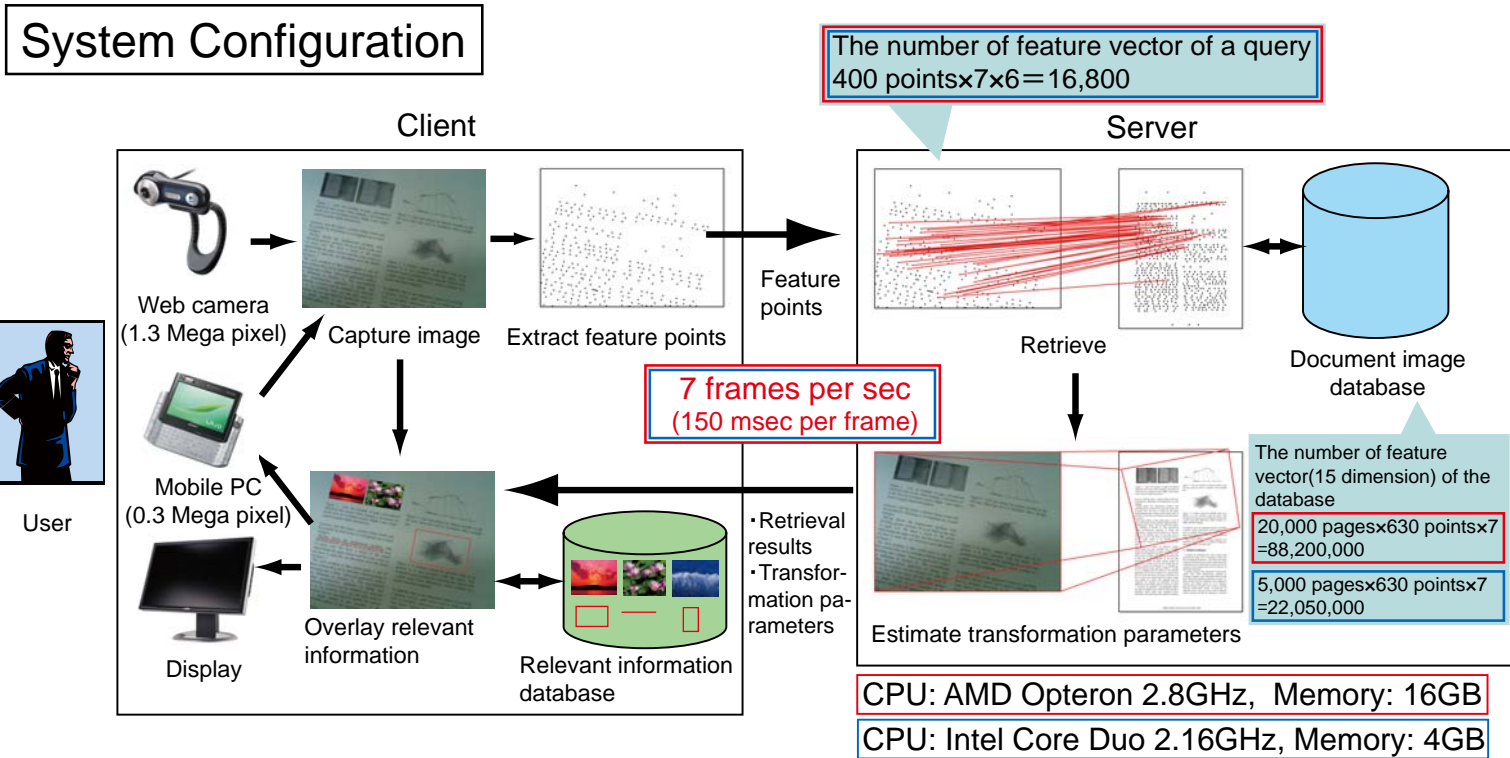


# Real-Time Document Image Retrieval Using Web Cameras

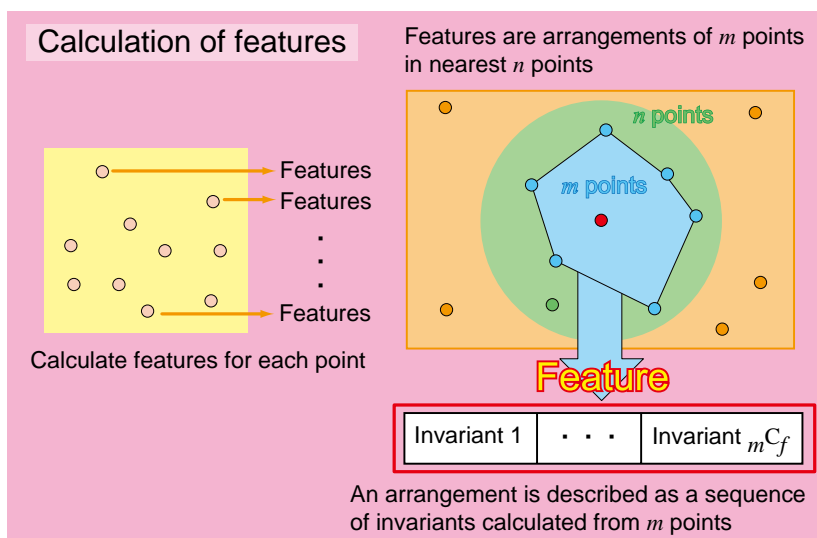
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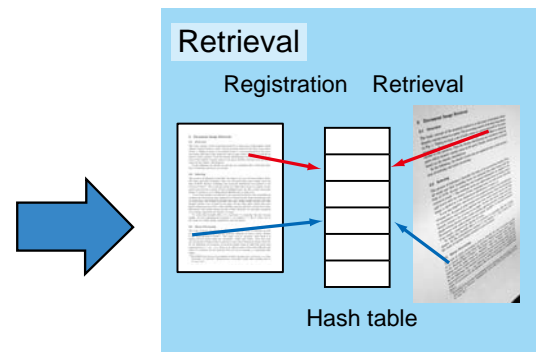
E-mail: nakai@m.cs.osakafu-u.ac.jp URL: http://www.m.cs.osakafu-u.ac.jp/~nakai/



## Real-time retrieval on a large scale database



### Locally Likely Arrangement Hashing



### Advantages of Locally Likely Arrangement Hashing

#### Invariance to perspective distortion

- Geometric invariants
- Robustness to changes of feature points

#### Fast retrieval ( $O(N)$ )

- (N: the number of feature points in a query image)
- Hashing
  - Features defined for each local region