



JavaOneSM

Sun's Worldwide Java Developer Conference



JavaOne™
Sun's Worldwide Java Developer Conference

Component Software Architecture for Business

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Research*
*Justsystem
Corporation*



Introducing Justsystem

- Japan's largest (package software)
- Component-based products
- Products cover business solutions



Japanese Language Processing

- World's premier and pioneer
- Adopted by most Japanese PC makers
- Japan's #1 selling word-processor (5 million copies sold)



Aggressively Incorporates Java™ into Business

- Into its own business solution systems
- Business components for those using Java™-based technologies
- Business and personal computing software as Java™-powered applications
- Japanese language processing components for those using Java™-based technologies



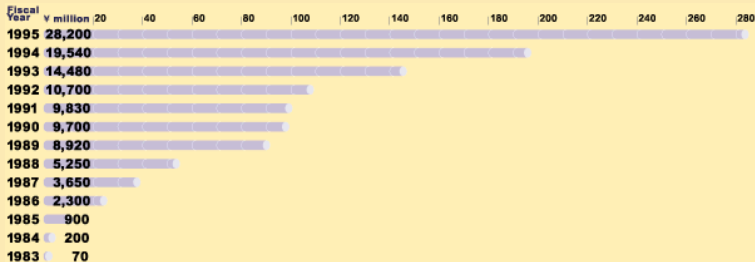
Key Products and Services

- Ichitaro – WP, ATOK – Kana-to-Kanji
- Hanako – Graphics, Sanshiro – Sprdsht
- Goro – RDB, Daichi -DTP, OM2 – Workgroup
- Just Office Server – Intranet Server
- JustNet – Internet access provider, and proprietary network service



Sales — Corporate

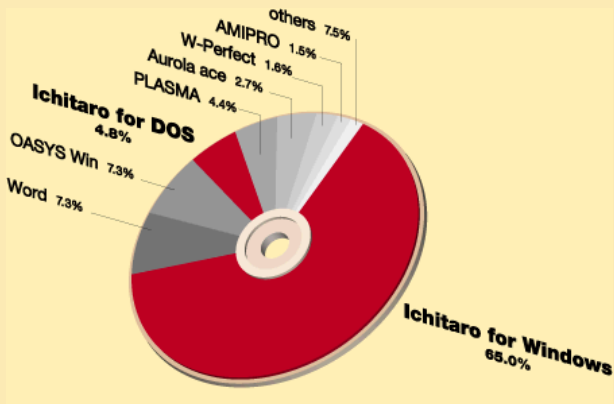
- \$282 million in fiscal year '95
- \$360 million expected for '96





Our Position in Japan

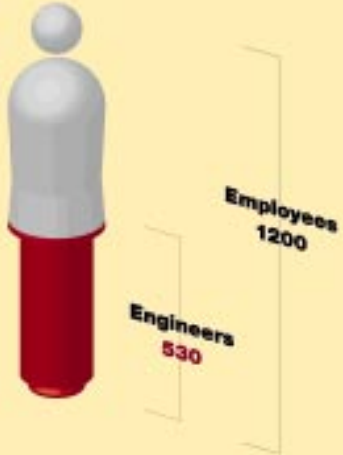
- Over 5 million copies of Ichitaro sold





Engineering Force

- 530 out of 1200 employees are software engineers
- Additionally, we hire 300 full-time contract programmers.





Our U.S. Presence — JavaOne Is the First

- We feel very honored
- Justsystem Inc. (Menlo Park, CA)
<http://www.justsystem.com>
 - Front-line contact with partners in U.S.
- Justsystem Pittsburgh Research Center (JPRC) just opened May 1
 - Headed by Professor Scott Fahlman, R&D collaboration with CMU



Netmobility in Business Solutions

- Advantages in distribution, management and update over the wire
- Applets as netmobile business components



Four Requirements for Business Solutions

- Compound document
- Web-centric collaboration
- DB-connectivity
- Netmobility



Justsystem Glues Four Elements

- Open component architecture
- Components for compound document
- Just Office Server (JOS)
- DB components and Just Builder
- Aggressive incorporation of Java-based technologies



First, About Notion of Compound-Document

- Integration of data from different and embedded application components
- Components may be dynamic
- Content and view are separate
- [Our compound-document JavaTM-compatible classes will be available to you]

Separation of Content and Viewing





Introducing Our Open Components Architecture

- It is called JOCA
- Base of our compound documents
- Open components based on embedded object-control and GUI
- Visual development environment (Just Builder)
- Visual user customization (Just Builder)

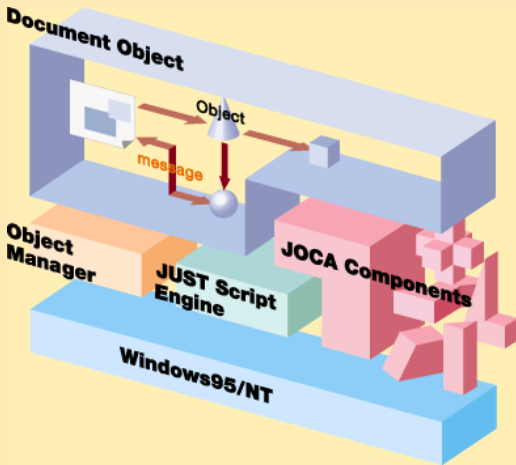


JOCA™

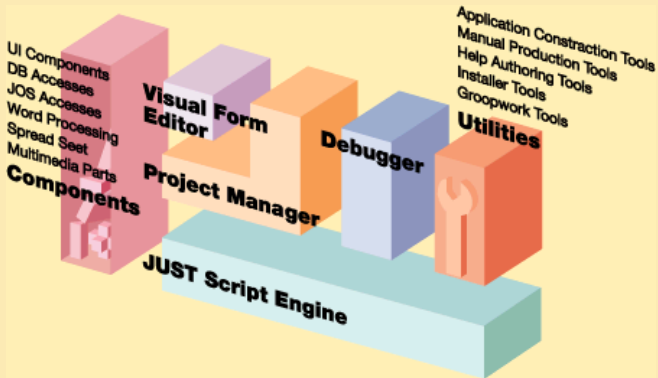
- We use it for our own development
- Enhanced OCX technology to allow for recursive container embedding
- For example, visual OCX in a DB-access container in another container
- Powerful GUI with compound-documents embedded
- Our example is Ichitaro 7



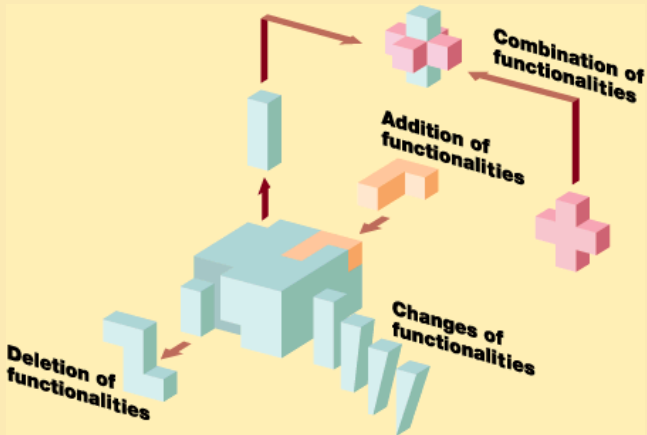
JOCA™ Architecture



Development with Just Builder™



User Personalization with Just Builder™



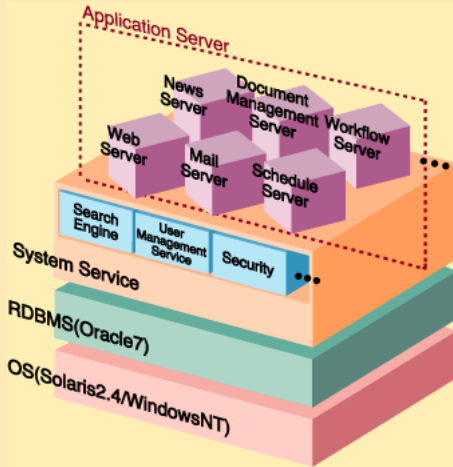


Introducing Just Office Server™ (JOS)

- Our Intranet server
- Based on JOCA
- Ubiquitous visual environment for OCX and the Java language
- Core functionalities for collaborative work



Just Office Server™





Web-Centric Solutions for Business with JOS

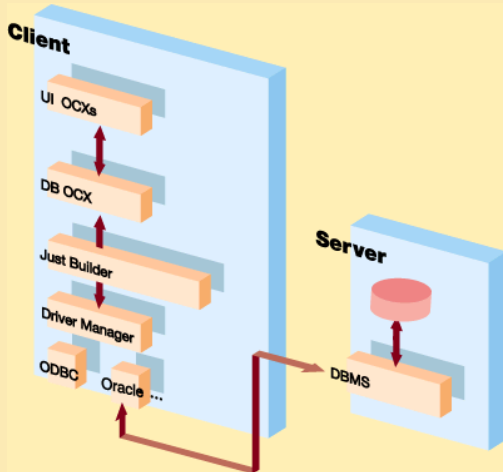
- Document management based on compound-documents
- Ample business components
 - sprdsht, news, scheduler, DB-accesses...
- Work-flow
 - Mail-oriented and configurable via a scripting language
- Visual development with Just Builder



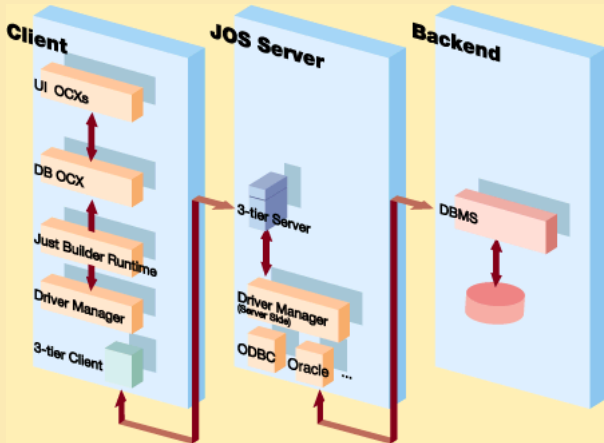
Visual DB Building with JOS

- Visual DB builder for 2-tier and 3-tier
- Visual design of database objects
- DB-interface can be anything (ODBC/JDBC, Oracle, etc.)
- No need to know SQL

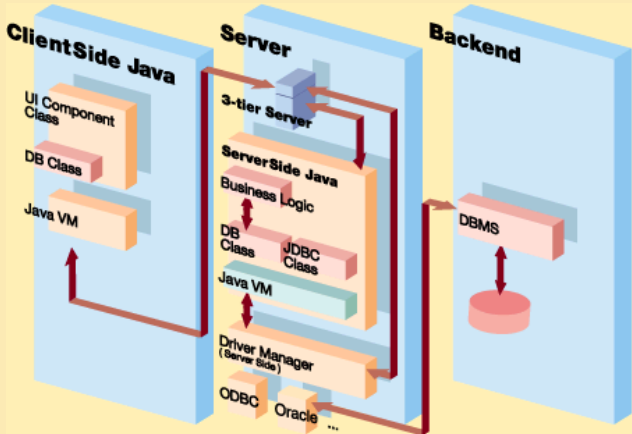
DB-Connectivity with JOS and Just Builder™-2tier



DB-Connectivity with JOS and Just Builder™-3tier

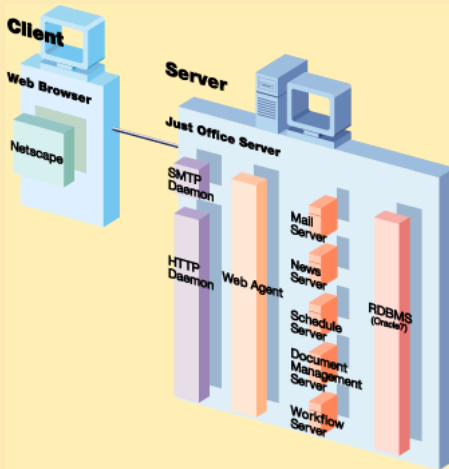


DB-Connectivity with JOS and Just Builder™- Java

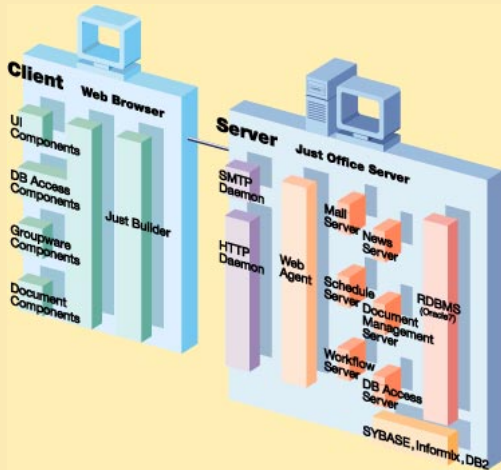




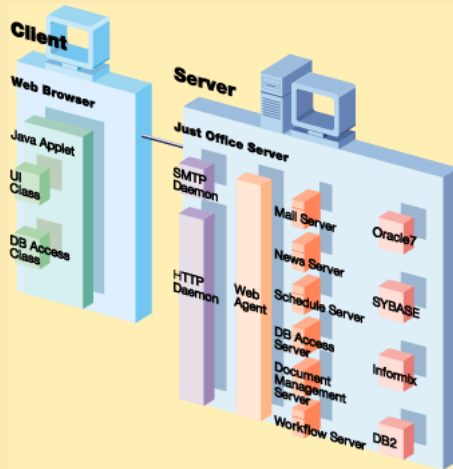
Case Study 1: Workgroup



Case Study 2: Component-Based Development

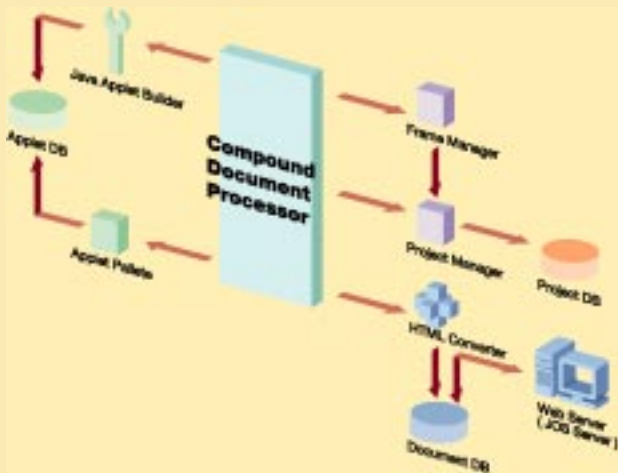


Case Study 3: DB-Access with Java™-Powered Applet





Case Study 4: Applet Builder





Demo Summary

- Web-centric groupware
- Application components for business
- Preparation of Java-powered applets and applications underway
- Business application development with Java



JustNet™: Newly Started — Real World Testbed of JOS

- Uses JOS for Internet services
- Higher scale testbed for JOS
- Contents as well as access provider
- Support for Java-based technologies underway
- [Live-demo on Netscape]



JustNet™ Access Points





Our Potential Contribution

- Compound document class extensions
- Dcmnt management class extensions
- Mix JOCA and Java™-compatible components
- Shifting business components to Java-compatible components
- Japanese language components (ATOK, etc)



One More Development— Network Computer™ (NC™)

- Java™-compatible application environment
- Technology Partner
- Low-level framework for multi-byte character code (mbcc)
- Input-method specifications for mbcc
- Develop input-method for Japanese and Chinese
- We will develop Java-powered applications



Concluding Remarks

- Our software is component-based (OCX now and Java underway) and we have the tools to take advantage of the component architecture
- The notion of compound document unites the development, customization, delivery, management and updates of components that are combined to produce real business solutions



Final Messages

- If you are interested in the entry to Japan and/or support for Japanese linguistic processing, we can help
- We are hiring programmers who write in the Java Programming Language (email: maru@justsystem.co.jp)
- For more info, check the English area at <http://www.justsystem.co.jp> or visit our U.S. affiliate:<http://www.justsystem.com>



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