# eXist developers' meeting 2006-02

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# Agenda

- Knowing each other: DW, JMV, PB, WM
- Global design, Refactoring
- Business issues, Communication
- Exist everywhere
- New Features
- Tests
- Features currently developed

# Refactoring, Global design

Quality of design is important

- Attract new developers & users
- Testability
- Ease of development
- Auto-documented
- Robust, reliable

# Refactoring, Global design - 2

Design paths to explore

- More interfaces (and factories): allows to changes implementations; tests easier

- Borrow some code (and/or design): Saxon, Jaxen

- AOP (Aspect Oriented Programming), where the same behavior has to be branched in a lot of places: permissions, transactions, triggers

- Remove bad smells (large classes, etc)

- Remove cyclic dependencies (JDepend)

- Local quality of code is also important, but with checkers like PDM it can be done little by little

# Refactoring, Global design

```
for(int i = 0; i < ql.length; i++) {

    node = ql[i];

    doc = (DocumentImpl) node.getOwnerDocument();

    doc.getMetadata().setIndexListener(listener);

    modifiedDocs.add(doc);

    if (!doc.getPermissions().validate(broker.getUser(), Permission.UPDATE))

        throw new PermissionDeniedException("permission to update document
            denied");

    node.appendChildren(transaction, children, child);

    doc.getMetadata().clearIndexListener();

    doc.getMetadata().setLastModified(System.currentTimeMillis());

    broker.storeXMLResource(transaction, doc);

    notifier.notifyUpdate(doc, UpdateListener.UPDATE);

}

checkFragmentation(transaction, modifiedDocs);
```

# Business

- Communication: be more visible
  - Object Web, Apache, conferences, W3C, sf.net, ...?

- Communication: eXist technical facts better explained

- Maybe change of name

- Better know he others on the market(MS SQL, Oracle, Tamino, X-Hive, Xyleme, Berkeley XML Sleepy Cat, ...

- Raise more money & contracts for the project: how?

# Exist everywhere - 1

- Plugins for the big clients: eclipse, OpenOffice, ...

- Follow standards: W3C full text, Java API, ...?
  - Why not a JAXP-like API ?

- Integration in applications that could benefit an XML DB:
  - PMD: store full Java code, rich queries
  - Same for eclipse
  - Project & mail management
  - CMS, ...

- New applications: mail database + IMAP

# Exist everywhere - 2

- Spring integration as an XQuery view
  - Exist Already integrated as a data source
- XQuark (XQuare) integration: possibility to "merge" XML DB with relational DB by querying them together
- More data parsers: mail, ICalendar, application zip files (OpenOffice, ArgoUML, ...), ...

# New features for Exist

- GUI
  - Pluggable editors, query helper, graph view
- Schema
  - Enforce validaty
  - Store number and dates as such
  - Generate schema from data
- Global integrity and links
- Pluggable indices (GIS e.g.)

# Tests

- Recorder for queries & updates
- Stress tests
- Parametrized tests by program
  - Concurrency
  - Large data sets, complex data sets
  - Possibility to reach the limits, provide plots of memory+time versus size
- Complex queries
- Existing test tool?

# Features currently developed

- New numbering: DLN (Dynamic Level Numbering)

- Ajax

- XACL

- What else ???