The FlyMine Project

University of Cambridge, UK http://www.flymine.org/http://www.intermine.org/

Data warehouse for bioinformatics

Uses the InterMine Data Warehousing System

Written in Java
Full object-oriented database and query system
Data integration toolset
Web application

I will be talking on two parts that may be useful to you:

BatchWriter Bioseg

BatchWriter

High performance Java database writing API

Asynchronous, writes in background, but has well-defined behaviour

Uses dirty tricks™ and binary COPY to maximise performance

addRow(), deleteRow(), clear()

flush(), backgroundFlush(), batchCommit(), close()

Bioseg

An R-Tree GiST index implementation copied from seg and altered to handle two integers (rather than two floating point numbers), using an improved algorithm

Much better than using the geometric shapes index for two integers (index size and performance)

Even so, a built-in R-tree implementation would be very welcome

http://www.bioinformatics.org/bioseg/wiki/