

ExperSet.java

```
/// Plot test
/// By Brygg Ullmer, MIT Media Lab
/// Begun November 1, 2001
///
/// Based on threading template by Ben Fry (fry@media.mit.edu),
/// 4/18/2001, and WinHelp Java Tutorial: AnimatorApplication.java,
/// Arthur van Hoff

import java.util.*;
import java.awt.*;
import java.awt.event.*;
import java.awt.geom.*;
import java.awt.image.*;

import javax.swing.*;
import java.io.*;

////////////////////////////////////////
//////// Experiment Set //////////
////////////////////////////////////////

public class ExperSet { // experiment set

    ////////// MEMBERS //////////

    BldgDbMgr      dbMgr = null;
    Hashtable      experSet = null;

    Experiment      currentExp = null;
    int currentExpNum = 0;
    // int currentExpNum = 1;

    int numExpSets = 4;

    static int[][] expSeq =

        {{1, 2},
         {2, 1},
         {10,11,12,13},
         {20,21,22,23}};

    private int numExperiments = 0;

    //////////////////////////////////
    ////////////////////////////////// BODIES //////////////////////////////////
    //////////////////////////////////

    ////////// Score //////////

    public ExperSet(BldgDbMgr dbMgr) {

        this.dbMgr = dbMgr;
        experSet = new Hashtable();

        loadExperiments();
    }

    ////////// loadExperiments //////////

    public void loadExperiments() {
```

```
Experiment expr;
Criteria  crit1, crit2, crit3, crit4;

////////////////////////////////

//// TRIAL ////

    expr = new Experiment(dbMgr, 21);

    crit1 = new Criteria("max sqft", "sq_foot", 1, 4300, 0, 4300);
    crit2 = new Criteria("max acreage", "acreage", 1, 3, 0, 3);
    crit3 = new Criteria("near A", "distToA", 1, 0, 0, 40);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    expr.addCriteria(crit3);

    //    expr.expectedScore = 1.5;
    //    expr.expectedScore = .1;
    //    expr.expectedScore = .07;
    expr.expectedScore = .001;
    addExperiment(expr);

    //////////////////////////////////

    expr = new Experiment(dbMgr, 2);

    crit1 = new Criteria("near A", "distToA", 1, 0, 0, 40);
    crit2 = new Criteria("near B", "distToB", 1, 0, 0, 40);
    crit3 = new Criteria("min price", "listing_price", 1, 0, 0, 1200);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    expr.addCriteria(crit3);

    //    expr.expectedScore = .15;
    //    expr.expectedScore = .315;
    expr.expectedScore = .001;

    addExperiment(expr);

    //////////////////////////////////

    /// RUN 1/

    //////////

    expr = new Experiment(dbMgr, 10);

    crit1 = new Criteria("min price", "listing_price", 1, 0, 0, 1200);
    crit2 = new Criteria("max acreage", "acreage", 1, 3, 0, 3);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    //    expr.expectedScore = .15;
    expr.expectedScore = .001;
```

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    addExperiment(expr);

    //////////////////////////////////////

    expr = new Experiment(dbMgr, 11);

    crit1 = new Criteria("near A", "distToA", 1, 0, 0, 40);
    crit2 = new Criteria("max sqft", "sq_foot", 1, 4300, 0, 4300);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    //    expr.expectedScore = .15;
    expr.expectedScore = .043;

    addExperiment(expr);

    //////////////////////////////////////

    expr = new Experiment(dbMgr, 11);

    crit1 = new Criteria("medium price", "listing_price", 1, 500, 0, 1200);
    crit2 = new Criteria("medium acreage", "acreage", 1, 1.5, 0, 3);
    crit3 = new Criteria("near B", "distToB", 1, 0, 0, 40);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    expr.addCriteria(crit3);
    //    expr.expectedScore = 2.5;
    //    expr.expectedScore = .03;
    expr.expectedScore = .09;

    addExperiment(expr);

    //////////////////////////////////////

    expr = new Experiment(dbMgr, 5);

    crit1 = new Criteria("medium sqft", "sq_foot", 1, 2000, 0, 4300);
    crit2 = new Criteria("max acreage", "acreage", 1, 3, 0, 3);
    crit3 = new Criteria("price ~= 300", "listing_price", 1, 300, 0, 1200);
    crit4 = new Criteria("near A", "distToA", 1, 0, 0, 40);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    expr.addCriteria(crit3);
    expr.addCriteria(crit4);

    //    expr.expectedScore = 2.5;
    expr.expectedScore = .13;

    addExperiment(expr);
*/

    //////////////////////////////////////

    //////////// RUN 2 ////////////

    /// TEST ///

    expr = new Experiment(dbMgr, 20);

    crit1 = new Criteria("min price", "listing_price", 1, 0, 0, 1200);

```

```

    crit2 = new Criteria("max sqft", "sq_foot", 1, 4300, 0, 4300);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    expr.expectedScore = .15;

    addExperiment(expr);

    //////////////////////////////////////

    expr = new Experiment(dbMgr, 21);

    crit2 = new Criteria("max acreage", "acreage", 1, 3, 0, 3);
    crit3 = new Criteria("near B", "distToB", 1, 0, 0, 40);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    //    expr.expectedScore = 1.5;
    //    expr.expectedScore = .1;
    expr.expectedScore = .07;
    addExperiment(expr);

    //////////////////////////////////////

    expr = new Experiment(dbMgr, 22);

    crit1 = new Criteria("max acreage", "acreage", 1, 3, 0, 3);
    crit2 = new Criteria("max acreage", "acreage", 1, 3, 0, 3);
    crit1 = new Criteria("near A", "distToA", 1, 0, 0, 40);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    //    expr.expectedScore = .15;
    expr.expectedScore = .166;

    addExperiment(expr);

    //////////////////////////////////////

    expr = new Experiment(dbMgr, 23);

    crit1 = new Criteria("min price", "listing_price", 1, 0, 0, 1200);
    crit2 = new Criteria("medium sqft", "sq_foot", 1, 2000, 0, 4300);
    crit3 = new Criteria("medium acreage", "acreage", 1, 1.5, 0, 3);
    crit4 = new Criteria("near B", "distToB", 1, 0, 0, 40);
    expr.addCriteria(crit4);

    expr.addCriteria(crit1);
    expr.addCriteria(crit2);
    expr.addCriteria(crit3);
    //    expr.expectedScore = 2.5;
    expr.expectedScore = .13;

    addExperiment(expr);

    }

    ////////////////////////////////////// addExperiment //////////////////////////////////////

    public void addExperiment(Experiment newExp) {

    //    experSet.addElement(newExp);

```

```
        Integer key = new Integer(newExp.getId());
        experSet.put(key, newExp);

        numExperiments++;
    }

    //////////// next Experiment ////////////

    public int nextExperiment() {
        currentExpNum++;

        if (currentExpNum > numExperiments) {
            currentExpNum = -1;
        } else {
            setCurrentExperiment(currentExpNum);
        }

        return currentExpNum;
    }

    //////////// setExperiment ////////////

    public void setCurrentExperiment(int whichExp) {
        getExperiment(whichExp);
    }

    //////////// getExperiment ////////////

    public Experiment getCurrentExperiment() {
        return currentExp;
    }

    //////////// getExperiment ////////////

    public Experiment getExperiment(int whichExp) {

        Integer key = new Integer(whichExp);

        currentExp = (Experiment) experSet.get(key);

        return currentExp;
    }

    //////////// Debug ////////////

    public static int dcnt;

    public void dbg(String s) {

        System.out.println("ExperSet." + (dcnt++) + ": " + s);
    }
}

//// END ///
```