

GroovyUtils

Administrator
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/* Groovy Class ** */

import java.text.NumberFormat;
import java.text.DecimalFormat;
import java.util.ArrayList;
import java.util.TreeSet;
import java.util.Comparator;

class Utils {

    def log = new ArrayList();

    String formatToScientific(number) {
        DecimalFormat df = NumberFormat.getNumberInstance();
        df.applyPattern("0.00E0");
        df.setGroupingUsed(false);
        return df.format(new Double(number));
        return number;
    }

    Double round(val, precision) {
        log.add("x");
        if (Double.isInfinite(val) || Double.isNaN(val)) return val;
        BigDecimal bd = new BigDecimal(val, new java.math.MathContext(precision) );
        return bd.doubleValue();
    }

    ArrayList sortMSAC(list) {
        TreeSet ts = new TreeSet(new MSACcomparator(log));
        ts.addAll(list);
        ArrayList sortedList = new ArrayList(ts);
        return sortedList;
    }

    ArrayList sort(list) {
        TreeSet ts = new TreeSet();
        ts.addAll(list);
        ArrayList sortedList = new ArrayList(ts);
        return sortedList;
    }

    String nextItem(list,item) {
        int index = list.lastIndexOf(item)+1;
        if (index >= list.size()) index = 0;
        return list.get(index);
    }

    String previousItem(list,item) {
        int index = list.lastIndexOf(item)-1;
        if (index < 0) index = list.size()-1;
        return list.get(index);
    }

    ArrayList getLog() {
        return log;
    }

}

class MSACcomparator implements Comparator {
    def log;
    MSACcomparator(log){
        this.log=log;
    }
    int compare(Object o1, Object o2) {
        String str1 = o1.toString();
        str1 = str1.substring(str1.indexOf('.')+1);
        String str2 = o2.toString();

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str2 = str2.substring(str2.indexOf('.')+1);
String[] part1 = str1.split("_");
try {
    int m1=0,s1=0,a1=0;
    String c1="";
    if (part1.length>4) {
        m1 = Integer.parseInt(part1[0]);
        s1 = Integer.parseInt(part1[1]);
        a1 = Integer.parseInt(part1[2]);
        c1 = str1.substring(part1[0].length()+part1[1].length()+part1[2].length()+3);
    }
    String[] part2 = str2.split("_");
    int m2=0,s2=0,a2=0;
    String c2="";
    if (part2.length>4) {
        m2 = Integer.parseInt(part2[0]);
        s2 = Integer.parseInt(part2[1]);
        a2 = Integer.parseInt(part2[2]);
        c2 = str2.substring(part2[0].length()+part2[1].length()+part2[2].length()+3);
    }
    Integer i1 = a1+s1*1000+m1*100000;
    Integer i2 = a2+s2*1000+m2*100000;
    return i1.compareTo(i2);
    log.add(m1+"."+m2+" - "+s1+"."+s2+" - "+a1+"."+a2+" - "+str1+" - "+str2);
    if (m1>m2) return 1;
    if (m1<m2) return -1;
    if (s1>s2) return 1;
    if (s1<s2) return -1;
    if (a1>a2) return 1;
    if (a1<a2) return -1;
    return c1.compareTo(c2);
} catch (Exception ex) {
    log.add(ex+" - "+str1+" - "+str2);
    return 0;
}
return 0;
return s1.compareTo(s2);
}
}

/* ## */

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