CertainTrust SDK : CertainTrustSimple

CertainTrustSimple is an implementation of CertainTrust without R and S calculations. The constructors of CertainTrustSimple objects are t, c, f and doc, where

t – average rating value

c – certainty value

f – initial trust value

doc – degree of conflict

The constructors are as following:

CertainTrustSimple(double t, double c, double f)

CertainTrustSimple(double t, double c, double f, double doc)

Setters function:

setTC(double newT, double newC) - Sets both certainty and trust.

setF(double newF) - Sets the initial trust value.

setDoC(double newDoC) - Sets the degree of conflict.

Getters function:

double getC() - Returns the certainty value.

double getT() - Returns the trust value.

double getF() - Returns the initial trust value.

double getDoC() - Returns the degree of conflict.

Operators: The operators AND, OR, NOT, cFusion, wFusion, Consensus, Discounting work in CertainTrustSimple objects in similar ways as they work in CertainTrust objects.

A simple example –

```
import java.awt.FlowLayout;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
```

```java
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JOptionPane;

import CertainTrust.CertainTrustSimple;
import CertainTrust.CertainTrustSimpleHTI;

public class Minimal extends JFrame implements ActionListener {
        private static final long serialVersionUID = -447167281994322634L;

        // this object stores the trust data and implements the operators
        CertainTrustSimple ctObject;

        public Minimal() {
                setTitle("Minimal CertainTrust SDK Demonstrator");
                setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
                setLayout(new FlowLayout());

                // display a single HTI
                ctObject = new CertainTrustSimple(10); // first, we need a CertainTrust data object
                add(new CertainTrustSimpleHTI(ctObject));

                // add a button to read the CertainTrust values
                JButton button = new JButton("Read CertainTrust values");
                button.addActionListener(this);
                add(button);


                this.setSize(450, 250);
                this.setVisible(true);
        }

        @Override
        public void actionPerformed(ActionEvent arg0) {
                // whenever the button is clicked
                JOptionPane.showMessageDialog(this,
                                "Values of the CertainTrust object:\n"
                                + "\nInit. value: "          + this.ctObject.getF()
                                + "\nTrust: "                + this.ctObject.getT()
                                + "\nCertainty: "            + this.ctObject.getC()
                                + "\nExpectation: "          + this.ctObject.getExpectation());
        }

        public static void main(String[] args) {
                new Minimal();
        }
}
```