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using System;
using System.Collections;
using System.ComponentModel;
using System.Data;
using System.Diagnostics;
using System.Web;
using System.Web.Services;
using CRA.clima.rain;
using CRA.clima.rain.interfaces;

namespace CRA.clima.webservices.rain
{
    /// <summary>
    /// Descrizione di riepilogo per CRA_clima_Rain
    /// </summary>
    [WebService(Namespace="http://www.sipeaa.it/webservices/rain")]
    public class CRA_clima_Rain : System.Web.Services.WebService
    {
        public CRA_clima_Rain()
        {
            //CODEGEN: chiamata richiesta da Progettazione servizi Web ASP.NET.
            InitializeComponent();
        }

        .....

        [WebMethod]
        public double[] HourlyRain(double dailyRain, double rainMonthlyAverage,
            double instrumentSensibility)
        {
            //instance of the Rain interface class
            IRain r = new Rain();
            //instance of the RainData class
            RainData rd = new RainData();
            //set parameters
            CRA.clima.rain.HRMeteotest.meteotest_a = 1.5;
            CRA.clima.rain.HRMeteotest.meteotest_b = 2.096;
            CRA.clima.rain.HRMeteotest.meteotest_c = 0.15;
            CRA.clima.rain.HRMeteotest.meteotest_d = -0.09;
            CRA.clima.rain.HRMeteotest.meteotest_e = 0.15;
            CRA.clima.rain.HRMeteotest.meteotest_f = 0.7;
            CRA.clima.rain.HRMeteotest.meteotest_g = 0.2;
            //instance of the HRMeteotest class
            IHourlyDailyRain hd = new HRMeteotest();
        }
    }
}

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        //set inputs
        rd.ModelHR = hd;
        rd.rain = dailyRain;
        rd.rainMonthlyAverage = rainMonthlyAverage;
        rd.instrumentSensibility = instrumentSensibility;
        //call the method
        r.RainHourly(ref rd);
        return rd.rainHourly;
    }

    [WebMethod]
    public double[] HalfHourlyRainArnoldWilliams(double dailyRain, double rainMonthlyAverage,
        double instrumentSensibility)
    {
        //instance of the Rain interface class
        IRain r = new Rain();
        //instance of the RainData class
        RainData rd = new RainData();
        //set parameters of the HHRArnoldWilliams class
        CRA.clima.rain.HHRArnoldWilliams.arnoldWilliams_minDailyRain = instrumentSensibility;
        CRA.clima.rain.HHRArnoldWilliams.arnoldWilliams_durationMin = 30;
        CRA.clima.rain.HHRArnoldWilliams.arnoldWilliams_alfa05Mean = 0.3;
        CRA.clima.rain.HHRArnoldWilliams.arnoldWilliams_alfa05Min = 0.03;
        CRA.clima.rain.HHRArnoldWilliams.arnoldWilliams_erlangAlfa = 0.17;
        CRA.clima.rain.HHRArnoldWilliams.arnoldWilliams_erlangBeta = 5;
        //instance of the strategy class
        IHalfHourlyDailyRain h = new HHRArnoldWilliams();
        //set inputs
        rd.rain = dailyRain;
        rd.rainMonthlyAverage = rainMonthlyAverage;
        rd.instrumentSensibility = instrumentSensibility;
        rd.ModelHHR = h;
        //call the method
        r.RainHalfHourly(ref rd);
        return rd.rainHalfHourly;
    }
}
}
}

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