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/*-----*
* File Name: RemoveBaseline *
* Creation: ER (07/13/05) *
* Purpose: Origin C function to subtract baseline from multiple datasets *
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* *
* Modification Log: *
*-----*/

////////////////////////////////////
#include <Origin.h>
////////////////////////////////////

////////////////////////////////////
// This function assumes a worksheet is active which has multiple datasets with
// columns set to type YXYXY...
// It then takes each Y dataset, computes baseline for the data using end-weighted
// option, and then subtracts the baseline from the Y dataset
void remove_baseline()
{
    // Point to active worksheet and check validity
    Worksheet wksData = Project.ActiveLayer();
    if( !wksData ) return;

    // Create a temp wks to hold baseline data
    WorksheetPage wpgTemp;
    wpgTemp.Create("Origin", CREATE_HIDDEN);
    Worksheet wksTemp = wpgTemp.Layers(0);
    while( wksTemp.DeleteCol(0) );
    wksTemp.AddCol("BslnX");
    wksTemp.Columns(0).SetType(OKDATAOBJ_DESIGNATION_X);
    wksTemp.AddCol("BslnY");

    // Point to the LabTalk curve object
    using LTCurve = LabTalk.curve;

    // Loop over wks assuming the data is organized as YXYXY...
    int nCols = wksData.GetNumCols();
    for(int ic = 1; ic < nCols; ic += 2)
    {
        // Reset the LabTalk curve object
        LTCurve.Reset();
        // Point to the current Y dataset for input data
        LTCurve.Data$ = wksData.Columns(ic).GetDatasetName();
        // Get size of input data and set this as size for baseline
        Dataset dsData(wksData, ic);
        LTCurve.baselinePts = dsData.GetSize();
        // Point to temp wks cols 1,2 for baseline output
        LTCurve.baseX$ = wpgTemp.GetName() + "_" + wksTemp.Columns(0).GetName();
        LTCurve.baseY$ = wpgTemp.GetName() + "_" + wksTemp.Columns(1).GetName();
        // Set baseline type to 0 - End weighted
        LTCurve.baseline.fittype = 0;
        // Compute baseline
        LTCurve.baseline();
        // Subtract the baseline from the raw data
        Dataset dsBsln(wksTemp, 1);
        dsData -= dsBsln;
    }

    // Destroy the temp worksheet
    wpgTemp.Destroy();
}

```