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//Support-Resistance.mq4

#property indicator_chart_window
#property indicator_buffers 2
#property indicator_color1 Aqua
#property indicator_color2 Magenta

//インジケーターバッファーの宣言
double Support[];
double Resistance[];
double Support_Point[];
double Resistance_Point[];

//変数の宣言
extern int Calculate_Bars = 5;
int Calculated = 0;
bool Even_Number = false;

int init()
{
    IndicatorBuffers(4);

    //インジケーターの値の精度
    IndicatorDigits(MarketInfo(Symbol(), MODE_DIGITS));

    //インジケーターバッファーのインデックス
    SetIndexBuffer(0,Support);
    SetIndexBuffer(1,Resistance);
    SetIndexBuffer(2,Support_Point);
    SetIndexBuffer(3,Resistance_Point);

    //インジケーターのラベル
    SetIndexLabel(0,"Support");
    SetIndexLabel(1,"Resistance");

    //インジケーターのスタイル
    SetIndexStyle(0,DRAW_ARROW);
    SetIndexArrow(0,159);
    SetIndexStyle(1,DRAW_ARROW);
    SetIndexArrow(1,159);
    SetIndexStyle(2,DRAW_NONE);
    SetIndexStyle(3,DRAW_NONE);

    return(0);
}

int start()
{
    //偶数か否かのチェック
    if(MathMod(Calculate_Bars,2) == 0 && Even_Number == false)
    {
        Alert("Parameter must be Odd Number.");

        Even_Number = true;
    }

    return(0);
}

//計算範囲の選択
if(IndicatorCounted() == 0)
{
    Calculated = 0;
}
else if(IndicatorCounted() > 0)
{
    Calculated = 1;
}

switch(Calculated)
{
    // 1 ティック目の計算
    case 0:
        for(int i = Bars; i >= 0; i--)
        {
            Support_Point[i] = NULL;
            Resistance_Point[i] = NULL;

            //サポートラインとレジスタンスラインの位置
            int Center_Index = MathFloor(Calculate_Bars / 2) + i;
            int Lowest_Index = iLowest(NULL,0,MODE_LOW,Calculate_Bars,i);
            int Highest_Index = iHighest(NULL,0,MODE_HIGH,Calculate_Bars,i);

            if(Center_Index == Lowest_Index)
            {
                Support_Point[Center_Index] = Low[Center_Index];
            }
            if(Center_Index == Highest_Index)
            {
                Resistance_Point[Center_Index] = High[Center_Index];
            }
        }

        i = Bars;

        while(i >= 0)
        {
            //サポートライン
            if(Support_Point[i] != NULL)
            {
                Support[i] = Support_Point[i];
            }
            else if(Support_Point[i] == NULL && Support[i+1] > 0)
            {
                Support[i] = Support[i+1];
            }

            //レジスタンスライン
            if(Resistance_Point[i] != NULL)
            {
                Resistance[i] = Resistance_Point[i];
            }
            else if(Resistance_Point[i] == NULL && Resistance[i+1] > 0)
            {
                Resistance[i] = Resistance[i+1];
            }

            i--;
        }

        break;
    // 2 ティック目以降の計算
    case 1:
        Support_Point[0] = NULL;
        Resistance_Point[0] = NULL;

        //サポートラインとレジスタンスラインの位置
        Center_Index = MathFloor(Calculate_Bars / 2);
        Lowest_Index = iLowest(NULL,0,MODE_LOW,Calculate_Bars,0);
        Highest_Index = iHighest(NULL,0,MODE_HIGH,Calculate_Bars,0);

        if(Center_Index == Lowest_Index)
        {
            Support_Point[Center_Index] = Low[Center_Index];
        }
        if(Center_Index == Highest_Index)
        {
            Resistance_Point[Center_Index] = High[Center_Index];
        }

        for(i = Calculate_Bars - 1; i >= 0; i--)
        {
            //サポートライン
            if(Support_Point[i] != NULL)
            {
                Support[i] = Support_Point[i];
            }
            else if(Support_Point[i] == NULL && Support[i+1] > 0)
            {
                Support[i] = Support[i+1];
            }

            //レジスタンスライン
            if(Resistance_Point[i] != NULL)
            {
                Resistance[i] = Resistance_Point[i];
            }
            else if(Resistance_Point[i] == NULL && Resistance[i+1] > 0)
            {
                Resistance[i] = Resistance[i+1];
            }

            i--;
        }

        break;
}

return(0);
}
```