

```
//Accurate MACD.mq4
```

```
#property indicator_separate_window
#property indicator_buffers 4

#property indicator_color1 Aqua
#property indicator_color2 Red
#property indicator_color3 OrangeRed
#property indicator_color4 BlueViolet

#property indicator_width1 1
#property indicator_width2 1
#property indicator_width3 2
#property indicator_width4 2
```

#property命令を記述

```
//インジケータバッファの宣言
```

```
double MACD[];
double Signal[];
double Up[];
double Down[];
```

インジケータバッファを宣言

```
//変数の宣言
```

```
extern int Fast_EMA_Period = 12;
extern int Slow_EMA_Period = 26;
extern int Signal_Period = 9;
extern int Applied_Price = 0;
```

変数を宣言

```
int init()
```

```
{
    //インジケータバッファのインデックス
    SetIndexBuffer(0,MACD);
    SetIndexBuffer(1,Signal);
    SetIndexBuffer(2,Up);
    SetIndexBuffer(3,Down);

    //インジケータのラベル
    SetIndexLabel(0,"MACD");
    SetIndexLabel(1,"Signal");
    SetIndexLabel(2,"Up");
    SetIndexLabel(3,"Down");
    IndicatorShortName("Accurate MACD ("+(string)Fast_EMA_Period+",
        "+(string)Slow_EMA_Period+",
        "+(string)Signal_Period+",
        "+(string)Applied_Price+)");

    //インジケータのスタイル
    SetIndexStyle(0,DRAW_LINE,STYLE_SOLID);
    SetIndexStyle(1,DRAW_LINE,STYLE_SOLID);
    SetIndexStyle(2,DRAW_HISTOGRAM,STYLE_SOLID);
    SetIndexStyle(3,DRAW_HISTOGRAM,STYLE_SOLID);

    //インジケータの描画開始時点
    SetIndexDrawBegin(0,Slow_EMA_Period);
    SetIndexDrawBegin(1,Slow_EMA_Period);
    SetIndexDrawBegin(2,Slow_EMA_Period);
    SetIndexDrawBegin(3,Slow_EMA_Period);

    return(0);
}
```

基本設定を記述

```
int start()
```

```
{
    int limit = Bars - IndicatorCounted();

    int i = 0;

    //MACD
    for(i = limit - 1; i >= 0; i--)
    {
        double Fast_EMA = iMA(NULL,0,Fast_EMA_Period,0,MODE_EMA,Applied_Price,i);
        double Slow_EMA = iMA(NULL,0,Slow_EMA_Period,0,MODE_EMA,Applied_Price,i);

        MACD[i] = Fast_EMA - Slow_EMA;
        MACD[i] = NormalizeDouble(MACD[i],Digits);
    }

    //シグナル
    for(i = limit - 1; i >= 0; i--)
    {
        Signal[i] = iMAOnArray(MACD,0,Signal_Period,0,MODE_EMA,i);
        Signal[i] = NormalizeDouble(Signal[i],Digits);
    }

    //ヒストグラム
    for(i = limit - 1; i >= 0; i--)
    {
        double Difference = MACD[i] - Signal[i];

        if(Difference >= 0)
        {
            Up[i] = Difference;
            Up[i] = NormalizeDouble(Up[i],Digits);
        }
        else if(Difference < 0)
        {
            Down[i] = Difference;
            Down[i] = NormalizeDouble(Down[i],Digits);
        }
    }

    return(0);
}
```

具体的な処理内容を記述