





```
struct BiquadCoefficients { float b0, b1, b2, a1, a2; };
BiquadCoefficients coeffs;

BiquadCoefficients calculateLowPassCoefficients (float freq);

void audioThread (const float* src, float* dst, size_t n)
{
    static float lv1, lv2;

    for (size_t i = 0; i < n; ++i)
    {
        auto input = src[i];
        auto output = (input * coeffs.b0) + lv1;
        dst[i] = output;

        lv1 = (input * coeffs.b1) - (output * coeffs.a1) + lv2;
        lv2 = (input * coeffs.b2) - (output * coeffs.a2);
    }
}

void updateFrequencyParameter (float newValue)
{
    coeffs = calculateLowPassCoefficients (newValue);
}
```







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```

struct BiquadCoefficients { float b0, b1, b2, a1, a2; };
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    for (size_t i = 0; i < n; ++i)
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        auto input = src[i];
        auto output = (input * coeffs.b0) + lv1;
        dst[i] = output;

        lv1 = (input * coeffs.b1) - (output * coeffs.a1) + lv2;
        lv2 = (input * coeffs.b2) - (output * coeffs.a2);
    }
}

void updateFrequencyParameter (float newValue)
{
    coeffs = calculateLowPassCoefficients (newValue);
}

```

```
struct BiquadCoefficients { float b0, b1, b2, a1, a2; };  
std::atomic<BiquadCoefficients> coeffs;
```

```
BiquadCoefficients calculateLowPassCoefficients (float freq);
```

```
void audioThread (const float* src, float* dst, size_t n)  
{  
    static float lv1, lv2;  
    auto local_coeffs = coeffs.load();  
  
    for (size_t i = 0; i < n; ++i)  
    {  
        auto input = src[i];  
        auto output = (input * local_coeffs.b0) + lv1;  
        dst[i] = output;  
  
        lv1 = (input * local_coeffs.b1) - (output * local_coeffs.a1) + lv2;  
        lv2 = (input * local_coeffs.b2) - (output * local_coeffs.a2);  
    }  
}
```

```
void updateFrequencyParameter (float newValue)  
{  
    coeffs = calculateLowPassCoefficients (newValue);  
}
```