



Understand the problem

- When using `juce::AudioProcessorValueTreeState`, `AudioProcessorParameter::setValue` can get called from `processBlock` on the real-time thread

**All parameters Valued for any listeners**

- `AttachedControlBase::parameterChanged` calls `triggerAsyncUpdate`

```
void AttachedControlBase::parameterChanged (const String&, float newValue) override
{
    lastValue = newValue;

    if (MessageManager::getInstance()->isThisTheMessageThread())
    {
        cancelPendingUpdate();
        setValue (newValue);
    }
    else
    {
        triggerAsyncUpdate();
    }
}
```

# Understand the problem

- When using `juce::AudioProcessorValueTreeState`, `AudioProcessorParameter::setValue` can get called from `processBlock` on the real-time thread
- Calls `parameterValueChanged` for any listeners
- `AttachedControlBase::parameterChanged` calls `triggerAsyncUpdate`

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{
    lastValue = newValue;

    if (MessageManager::getInstance()->isThisTheMessageThread())
    {
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    else
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        triggerAsyncUpdate();
    }
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```

# What can we do?

1. Not use anything that calls `PostMessage` from a real-time thread