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## **Sequences**

Many of the events that happen throughout SOMA are triggered sequences - a sound plays, then the player's FoV changes, then a light starts flashing etc. etc. We control all of those through a set of wrappers we call Sequences, which hide a bunch of timers away and make things easier to read.

For each sequence you need a map property to store the state - a cSequenceStatesData<code> cSequenceStatesData mSequenceAlert; </code> Then you create a sequence function. This will be repeatedly called until the whole sequence is over. It looks something like this: <code> void Sequence Alert(const tString& in asName) { Sequence\_Begin("Sequence\_Alert", mSequenceAlert); if(Sequence DoStepAndWait(1.0f)) Do this step and then wait for 1 second { MakeALoudNoise(); } else if (Sequence DoStepAndWait(2.5f)) Do this and then wait for 2.5 seconds { FlashABrightLight(); } else if (Sequence DoStepAndPause()) Do this and then pause until told otherwise { SaySomethingAndCallBack("OnSayingSomethingComplete"); } else if (Sequence DoStepAndWait(10.0f)) Do this and then wait for 10s { CrushPlayerLikeAnAnt(); } else if (Sequence DoStepAndContinue()) Do this and go on to the next step (in this case there isn't one) { ApologiseToPlayer(); } Sequence\_End(); } void OnSayingSomethingComplete() { Saying something is now complete - poke the sequence to continue processing SequenceStates Resume("Sequence Alert"); } </code> As you can see, Sequence DoStepAndPause() in there actually pauses the whole sequence until some external event - in this case the callback from the voice playing code calls SequenceStates\_Resume()" and asks it to continue.

To start the sequence, you just call the sequence function **once** with an empty argument when you want it to trigger e.g.

```
Sequence Alert("");
```

no need to call it every frame or anything! Once started, timers will automatically make sure that the sequence steps get followed when they need to be.

We use this a lot, all the way through SOMA, sometimes running multiple sequences in parallel, as they're totally independent of each other. (Which is perfectly possible, but can get very confusing - we really wouldn't recommend it, it more grew out of level complexity than anything else!)

## **Important Functions**

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