

## Overview

This standard is about modifying audio material using sampling and synthesis analogue or digital hardware and software. Samplers are used to trigger audio material. Synthesisers are generally either used to reproduce and edit the sound of traditional instruments or to create more diverse electronically based sounds or effects.

This standard includes selecting and adjusting synthesisers, triggering samples, combining synthesised and sampled material, monitoring quality against brief and saving work.

This standard is for recording engineers and programmers who use samplers and synthesisers to modify audio material.

## Performance criteria

### *You must be able to:*

1. recall saved and archived materials when required for work
2. use appropriate types of synthesis for required sound characteristics
3. adjust parameters of synthesisers to meet requirements
4. operate samplers and synthesisers in line with manufacturers' instructions
5. combine synthesized and sampled materials to meet requirements
6. trigger samples at appropriate times
7. monitor quality of synthesised sound against requirements
8. adjust program and sample parameters of samplers and synthesisers to meet creative requirements
9. create, save and load sampler and synthesiser patches and programs to meet requirements
10. save and archive all materials created in line with organisational processes

## Knowledge and understanding

### *You need to know and understand:*

1. the differences between audio and Musical Instrument Digital Interface (MIDI) sequencers
2. requirements for setting up (MIDI) within sequencers
3. how systems are implemented to integrate sequencers, samplers and synthesisers
4. the function and parameters of additive, subtractive, FM, AM, granular and wavetable synthesis
5. different ways to trigger samples including using a keyboard and via the screen of a sequencing package
6. how to operate software sequencing packages to combine original synthesized and sampled parts
7. the basic principles and sound characteristics of common types of synthesis
8. the differences in sound, differing uses, contexts and methods for synthesis types
9. common synthesis functions and their limitations

Modify audio material using samplers and synthesisers

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<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating Organisation</b>	Creative & Cultural Skills
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<b>Relevant Occupations</b>	Recording Engineers, Recording Producers, Mix Engineers, Assistant Engineers, Programmers, Composers, Tape Ops, Writers
<b>Suite</b>	Sound Recording and Music Technology
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