CCSMT42

Use audio mix automation and control surfaces

Overview

This standard is about mixing and production techniques which involve significant amounts of automation creatively to achieve specified results. Good quality mixes often contain a substantial number of dynamic elements which can add interest and change as the piece progresses. On a simple level, you may be called upon to implement techniques, such as dropping the level of a competing instrument in the mix every time the main vocal comes in.

In this way, automation can be used as a process similar to the subtle use of compression. The process of automation can also be used more creatively. For example a guitar track could be affected with volume automation data in order to simulate a tremolo effect.

You will use a broad range of common techniques, including the creation of snapshots, time-based automation, auditing parameters available for automation, saving and recalling data and the process of reading and writing automation data. You will also use and evaluate control surfaces which can be used alongside software-based packages to create more flexible ways of controlling the automation process.

This standard utilises the multi tasking skills expected of today's recording engineers, editing engineers, mastering engineers, mix engineers and programmers.

You need to demonstrate experience of using mixing and production techniques which involve the use of significant amounts of automation to achieve creative results. This might involve digital hybrid consoles and their individual bespoke menu systems and functions.

Users will require a good working knowledge of automation parameters and processes. They will explore the effect that automation can have on the creative production of multi-track recordings. You will carry out tasks that exemplifies different issues relating to the implementation of automation including the advantages and disadvantages of different types of automation. You will need to use automation both 'invisibly' to correct and/or balance performance related parameters and in more explicit and creative ways.

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Performance criteria

You must be able to:

P1 set up automation systems
P2 edit automation data
P3 use automation techniques
P4 automate multi effects
P5 automate dynamic software
P6 use control surfaces
P7 set up and confirm the operation of hardware- and software-based automation systems
P8 automate data using real-time editing
P9 automate data using graphical-based editing
P10 automate data using snapshots
P11 manage automation data
P12 use different control surfaces to input and edit automation data
P13 create mixes and make stereo recordings
P14 reset and recall automated mixes
P15 reset clear all settings

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Knowledge and understanding

You need to know and understand:

K1 the principals of automation systems
K2 the principals of edit automation data
K3 automation techniques
K4 the principals of various hybrid control surfaces
K5 the way in which automation is set up, written and played back on a software-based mixing system
K6 the way in which automation is set up, written and played back on a hardware-based mixing system
K7 parameters associated with writing and playing back automation data
K8 key features of a mixing console which can be automated
K9 the ways in which real time, graphical and snapshot automation is edited
K10 automation modes
K11 automation as a production tool
K12 key developments in automation control surfaces
K13 the range of hardware control surfaces
K14 how to compare and evaluate several audio control surfaces

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Originating organisation	Creative & Cultural Skills
Original URN	CCSMT42
Relevant occupations	Maintenance engineers; technical support; Live sound Engineers; artists; Recording Engineers; recording Producers; mix engineers; assistant engineers; programmers; Mastering Engineers; editing engineers; OB/post engineers; writers; co writers; tape ops; Studio managers; Jingle composers
Suite	Music Technology
Key words	Live automation of all parameters; writing to a single track; writing to a single sub-parameter on an audio track; snapshot record and recall; Drawing in data; re-shaping existing graphical data; drawing in preset shapes to form data; Making snapshots; snapshot recall; editing and re-saving snapshots; Saving and recalling snapshots; thinning data;, sample accurate or quantised automation data streams; saving all automation data; Touch fader/auto-touch/touch; auto-latch/latch, cross-fade; overwrite/write; trim mode/s; automation; music; sound; music technology; control surfaces;