CCSMT18
Operate analogue and digital dynamics and effects equipment for music and audio industries

Overview

It is important for studio engineers in all recording sectors to understand the differing array of effects units and types of Dynamic processing units being used.

This standard is about industry standard studio dynamic processing and effects units that you are required to use when working with audio signals in a professional environment. You will need to understand the main aspects of common dynamics and effects units and how and why the recording engineer uses them.

This standard will demonstrate the correct theory use and connection of compression, limiting, gating, delay, reverb and chorus effects.

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

Good practice and operation:

You will demonstrate the audio analysis skills necessary to evaluate when there is a need to use dynamics and effects processors. You will implement basic connectivity and use of compression, gating and effects.

You are required to make a critical evaluation of the creative differences between software and hardware implementations of effects and dynamics processing.

You will be required to have access to the level of both professional processing hardware and software units found in current 24 & 48 track recording studios and mixing suites.

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Performance criteria

You must be able to:

P1   use the controls of common professional dynamics processing hardware units

P2   use the parameters of common professional hardware effects units

P3   use and customise the parameters of common professional dynamics processing software units

P4   use and customise the parameters of common professional software effects units

P5   connect and route signals through professional dynamics processors via industry mixing consoles

P6   connect and patch professional effects units via industry mixing consoles

P7   research technical information on the controls of common dynamics processing units

P8   inspect controls and identify the key parameters of dynamics processing units

P9   research technical information on the parameters of common effects units

P10   inspect controls and identify the key parameters of effects units

P11   connect dynamics processors to mixing consoles

P12   send signals through dynamics processors using insert points of mixing consoles

P13   connect effects units to mixing consoles

P14   send and return signals through effects units using mixing console auxiliaries and insert points

P15   use the correct terminology associated with each effect or processor

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Knowledge and understanding

You need to know and understand:

K1   the parameters and controls of compressor units
K2   the parameters and controls of noise gate units
K3   the parameters and controls of limiter units
K4   the benefits of dynamics software in the recording process
K5   the controls and parameters of Delay units
K6   the controls and parameters of Reverb units
K7   the controls and parameters of Chorus units
K8   the controls and parameters of Flanger units
K9   the controls and parameters of Phaser units
K10   the benefits of effects software in the recording process
K11   the types of dynamics processors
K12   how dynamics processors interact with mixing consoles
K13   types of cables commonly used with dynamic processors
K14   the terminology associated with each dynamics system
K15   state types of effects units
K16   how effects units interact with mixing consoles
K17   types of cables used with effect units
K18   the terminology associated with each main effects unit

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Status	Original
Originating organisation	Creative & Cultural Skills
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Relevant occupations	Recording Engineers; recording Producers; mix engineers; assistant engineers; programmers; composers; tape ops; writers; artists; film editors; film scores; PA performance spaces/venues; installations;
Suite	Music Technology
Key words	Effects hardware/software - Delay, reverb; chorus; flanging; phasing; echo; distortion; Dynamic processing hardware/software; Compressors; limiters; gates; noise gates; exciters; expanders; music; sound; music technology;