CCSMT33

Carry out studio sound synchronisation for computer games and multi-media

Overview

Sound synchronisation for gaming or multi media applications is related to straight composition of sound or music and has similar requirements to those for film soundtracks. However, there is the additional requirement for interactive and dynamic relationships with the consumer audience or end-users. Many game environments use layers of sound which can interact with each other alongside the real time action directed by the game user on screen. There is often a requirement for an atmospheric bed of music or sound which may change or cross-fade to other pieces as the game user moves between territories in the game. Since the time frame of the game is to a large extent controlled by the user and may be played for hundreds of hours there are heightened requirements for game sound designers to establish sound effects and music which will stand the test of time and user repetition.

This standard is about sound effect recording and acquisition, MIDI sequencing and sound/music creation. This standard will also evaluate and execute looping of audio materials suitable for gaming environments. You must make use of IP assets (Gaming, animation scenes or film/video footage) that has full cleared approval to work with.

You are encouraged to study game sequences and make evaluations of the way in which music and sound is used in current games. You should also have sensitivity to the consequences of operating sound within a non-linear gaming environment. The use and familiarity of gaming interfaces, middleware and gaming engines is required to demonstrate implementation of gaming play events as is the use of repetitive and non repetitive audio materials. Real time adaption, customisation and editing of audio for gaming scenes are also essential skills.

It is noted that the game immersion itself for the individual gamer is a key point when providing synchronised audio materials for video games and evidence of evolving game immersion is required.

This standard utilises the knowledge and management expected of today's recording engineers, editing engineers, mastering engineers, mix engineers and programmers with a particular focus for Technical support and maintenance teams within larger organisations.

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Performance criteria

You must be able to:

P1 script or draft out basic score lines fit for gaming scenes
P2 aurally evaluate sound elements within gaming environments
P3 create a list of requirements for short sections of gaming scenes
P4 produce repetitive and non repetitive audio materials/effects
P5 use gaming software/middleware/engines and screen scene loops
P6 implement sound and audio into gaming engines
P7 plan and produce audio for sections of gaming scenes
P8 create detailed cue sheets & general scene scripting
P9 record and transfer audio materials into single locations for further use
P10 use appropriate software processes to test sections of gaming scenes
P11 use software to execute synchronised loops and scenes
P12 use gaming interfaces/engines to use loops/audio materials/effects
P13 aurally evaluate synchronised loop points, scenes, actions, triggers
P14 catalogue and archive sounds, effects and libraries for each scene
P15 list file formats, conventions and any technical specifications

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Knowledge and understanding

You need to know and understand:

K1 processes for drafting or scoring music effects
K2 ambience and related music & effects
K3 requirements for sourcing and combining repetitive/non repetitive audio for gaming environments
K4 audio decisions for sections of gaming scenes/options
K5 precise looping of audio materials (repetitive)
K6 precise insertion of audio materials (non repetitive)
K7 audio requirements and evaluation of gaming environments
K8 the importance of time-based audio synchronisation requirements
K9 the processes required to bring audio materials together to support on-screen action during short sections of gaming scenes
K10 triggered layers of audio – emotive/drama re-enactment of game
K11 technical audio considerations when looping sections of audio
K12 thematic effects of looping different lengths of materials
K13 limitations and specific requirements of sound engine delivery
K14 gaming resources and allocation of any interactive delivery

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Date approved	April 2012
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Validity	Current
Status	Original
Originating organisation	Creative & Cultural Skills
Original URN	CCSMT33
Relevant occupations	Recording Engineers; recording Producers; mix engineers; assistant engineers; programmers; Mastering Engineers; editing engineers; OB/post engineers; writers; co writers; managers; tape ops; Studio managers; facility managers;
Suite	Music Technology
Key words	specific musical sequences or effects; transition effects between screens; spot [triggered] effect; looped backing atmos; music pad; loops; Ambient/musical atmosphere; short spot effects; dialogue requirements; specific musical sequences or effects; storyboards; scripts; Pre production; post production; Foley effects; sound effects; ambient atmosphere tracks; music; dialogue tracks; sound effects; re-recording; vocal overdubs; composing and recording new musical material; library music; LFE channel; ambient atmosphere tracks; original footage soundtrack integration; musical/soundscape requirements; vocal effects and treatments; volume and presence (EQ); Track layouts (film, SDDS, DTS); Dolby stereo (LCRS), 5.1, 6.1, 7.1; sound; music technology;