



Australian Government

CUASOU421 Mix audio for live productions

Release: 1

CUASOU421 Mix audio for live productions

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to mix audio for live productions, such as shows and performances, in the music, screen, media, entertainment and events industries. This involves being a part of pre and post production operations, including checking and preparing audio equipment for live mixing, and disassembling equipment post-production.

The unit applies to those who take responsibility for the front of house mix and creating quality sound for audiences. They work autonomously in a team environment and may also be responsible for the limited supervising of others.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Media and entertainment production – Audio/sound

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for live audio mixing	1.1 Review production documentation and confirm scope of audio mixing requirements with required personnel 1.2 Determine acoustic and dynamic requirements of live production 1.3 Check that audio equipment is set up and operational in line with production requirements 1.4 Anticipate problems that could arise during live production and develop mitigation strategies with required personnel
2. Undertake pre-production operations	2.1 Match interfaces between audio and destination according to level, impedance, phase and frequency 2.2 Line check inputs and outputs for continuity and patching, and

ELEMENT	PERFORMANCE CRITERIA
	route test signals to required signal paths according to requirements 2.3 Perform time and phase alignment of audio equipment 2.4 Establish mix to be used in live production that produces required levels, dynamics, tonal balances and frequency response 2.5 Discuss and resolve technical problems with required personnel 2.6 Complete audio check and document changes according to organisational requirements
3. Mix audio sources live	3.1 Adjust signal control of level, equalisation and dynamic parameters, and confirm sound mix is balanced 3.2 Apply effects according to production requirements 3.3 Produce transitions between sound signals that create required effect 3.4 Confirm that level of composite signal is within technical limits and required dynamic range 3.5 Monitor noise levels according to venue and authority requirements 3.6 Resolve audio operational problems within required timeframe during live production
4. Complete post-production operations	4.1 Power down and disassemble equipment according to venue requirements and safe work practices 4.2 Pack and store equipment and accessories according to venue requirements, safe work practices and production requirements 4.3 Clean work environment after use and restore environment to pre-production condition 4.4 Contribute to team evaluation of live production and seek feedback from required personnel on own work performance 4.5 Develop and implement strategies aimed at improving own and overall audio operation

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	Uses numerical features of audio desks when mixing audio
Oral communication	Discusses ideas and solutions with others in relation to audio operations
Reading	Interprets production documentation in relation to own duties

SKILL	DESCRIPTION
Writing	• Prepares and updates workplace documentation
Initiative and enterprise	• Adopts a methodical and logical approach to live audio mixing duties
Planning and organising	• Follows workplace protocols and safety procedures • Recognises and complies with organisational requirements in relation to noise levels • Recognises and takes responsibility for addressing problems that arise in audio operations
Technology	• Uses standard applications when updating audio documentation • Uses technology and equipment to mix audio

Unit Mapping Information

Supersedes and is equivalent to CUASOU401 Mix live audio.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

Assessment Requirements for CUASOU421 Mix audio for live productions

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package Version 5.0.

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- mix live audio for at least two different productions according to production requirements.

In the course of the above, the candidate must:

- mix live audio using both analogue and digital mixing desks
- work collaboratively with others during pre and post show operations.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- features of a variety of analogue and digital front of house consoles
- procedures for using matrix and main outputs of consoles
- uses of signal processing, including troubleshooting and for creative effects
- techniques for adding and patching sub-mixers into sound systems
- safe work practices for setting up, powering down and packing up audio equipment
- safe noise levels when mixing audio during live performances or shows
- organisational procedures for completing audio checks and documenting changes to audio equipment
- strategies to seek feedback to identify audio operation improvements
- impact of the following on live audio mixing:
 - automation and cue delivery
 - signal processing and special effects devices
 - SMPTE time code and musical instrument digital interface (MIDI) to fire cues and automation
 - voltage control amplifier (VCA) masters.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to live audio mixing equipment and accessories required to demonstrate the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>