



Australian Government

CUASOU413 Manage audio system control networks

Release: 1

CUASOU413 Manage audio system control networks

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 performance outcomes, skills and knowledge required to set up a basic data network for remote control and distribution of digital system processing (DSP) audio in the screen, media, entertainment and events industries.

The unit applies to those who work autonomously in a team environment as they take responsibility for setting up and monitoring audio system control networks, such as remote control systems for amplifiers and proprietary DSP control systems where functions can be assigned remotely.

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. Determine audio network requirements	1.1 Establish system requirements in consultation with required personnel and with reference to production documentation 1.2 Investigate and determine capabilities of available system resources 1.3 Draw system flow charts according to requirements 1.4 Allocate audio stage boxes where analogue audio is required 1.5 Determine audio schedules and allow for pre-set system configurations and dynamic system changes 1.6 Discuss and finalise plans for audio system control networks that meet production requirements and timelines

ELEMENT	PERFORMANCE CRITERIA
2. Test and commission network	2.1 Assemble hardware components and network topography according to system requirements and safety procedures 2.2 Complete interface with analogue audio as required 2.3 Test network topography and resources to confirm functionality meets requirements 2.4 Commission analogue audio components according to requirements 2.5 Activate and implement all DSP system pre-sets
3. Monitor network	3.1 Crosscheck performance of amplifiers and loudspeakers according to DSP system assignments 3.2 Apply knowledge of data interfacing and protocols to work activities 3.3 Identify problems with network and resolve them or report to required personnel as required 3.4 Evaluate effectiveness of audio network operations and note areas for future improvement in consultation with required personnel

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 equipment
Oral communication	• Obtains information by listening and questioning • Discusses ideas and solutions related to audio operations
Reading	• Obtains information from different written sources
Teamwork	• Confirms requirements and completes tasks in collaboration with others • Follows required communication practices and protocols
Initiative and enterprise	• Meets work deadlines • Assesses information about audio system control networks and devises to meet audio network requirements for productions • Applies knowledge of audio concepts and principles to management of audio system control networks
Problem solving	• Recognises and takes responsibility for addressing problems that arise in audio operations

SKILL	DESCRIPTION
	Adopts methodical and logical approach to establishing, testing and monitoring audio system control networks
Self-management	Follows workplace protocols and safety procedures
Technology	- Controls wiring and audio routing options for distributed audio control systems - Uses required software to prepare audio production documentation

Unit Mapping Information

Supersedes and is not equivalent to CUASOU403 Manage audio system control networks.

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 CUASOU413 Manage audio system control networks

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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:

- configure and manage audio networks that meet production requirements on at least two different occasions.

In the course of the above, the candidate must:

- finalise plans for audio system control network that meet requirements and timelines
- test, commission and identify problems with audio system control network, taking action or reporting to required personnel as required
- follow workplace protocols and safety procedures during set up and monitoring networks
- work collaboratively with required personnel
- evaluate effectiveness of audio network operations in consultation with required personnel.

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:

- key factors, purpose and procedures relating to industry terminology:
 - internet protocol (IP) networking
 - digital audio consoles
 - basic digital signal processing
 - wireless sound technologies
 - auxiliary control interfaces
 - appliance testing, repair and maintenance
 - moving fader automation
 - lithium polymer (LiPo), alkaline and other applicable batteries
 - cable rolling

- signal flow operation and delivery
- show-based protocols and control mediums
- key features of systems used to control audio
- terminology and definitions related to digital systems and network control
- relationship between cues and control networks
- difference between analogue and digital forms of control and switching
- concepts and procedures associated with data interfacing:
 - basic network protocols
 - communications
 - interfacing with common computer operating systems
 - network distribution
 - network topologies
 - transmission
- proprietary audio transmission protocols and other kinds of full bandwidth audio transmission topologies.

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:

- audio networking devices
- venue in which audio can be networked.

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

Links

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