Australian Government

Assessment Requirements for ICTDRE305 Develop integrated digital reception systems

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of ability to:

- Comply with standards, regulations and work health and safety (WHS) procedures and practices when developing an integrated system
- communicate with customers
- determine the full scope of specifications for an integrated digital reception system
- use calculations to correctly determine the number of network and current requirements
- place system devices appropriately in system scheme
- apply and check appropriate modes of programming and diagnostic tools in the design
- program devices and set load operating parameters according to manufacturer specifications
- use diagnostic tools to locate and correct system defects, faults and anomalies
- document and backup system during appropriate stages of the project.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe the applications and advantages of integrated systems
- identify the bus system cable type, polarity, length and acceptable topologies
- describe the process of controlling digital system integration (DSI) and communicating with digital addressable lighting interface (DALI) electronic ballasts
- identify factors that affect control bus stability, including number of units on a network, and current drawn by devices in relation to current output of power supplies
- define the operating parameters of integrated systems and programming to an extent indicated by:
  - importance of project documentation and backup

    - importance of location of output and input devices and control bus power supplies
- describe lighting dimmer capabilities and selection
- determine the low voltage (LV) supply overcurrent and surge protection
- describe multiple network connectivity
- identify the software used for system and device programming, monitoring and control
- explain system and device programming, encompassing:
    - addressing conventions for networks, devices, applications, output groups, types of control and outputs, which include 'on', 'off', a specific level, and over a specific time
    - PC programming tools and methods (programming includes configuring network database using addressing tools and objects, function objects, editing, altering and transferring the database to network)
- identify and describe system fault-finding processes
- determine the system components, encompassing:
    - support devices for control bus supply and control
    - support devices for programming, interconnection between networks and integration with third party systems
- describe the types and capabilities of input and output devices.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the Telecommunications – Digital Reception Technology industry and include access to:

- a typical contemporary dwelling into which a digital system will be developed
- availability of all functional requirements of a modern home
- access to contemporary digital equipment
- access to all current standards, codes and regulations.

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 guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2