



Australian Government

MSFID6018 Apply 3D digital visualisation techniques to represent interior designs

Release: 1

MSFID6018 Apply 3D digital visualisation techniques to represent interior designs

Modification History

Release 1. Supersedes and is equivalent to MSFID6002 Apply 3-D visualisation techniques to represent interior designs.

Application

This unit describes the skills and knowledge required to select and apply digital rendering techniques to three dimensional (3D) computer aided design (CAD) models and create realistic visualisations of interior design projects for the purpose of design development and presentation.

This unit applies to interior designers.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

N/A

Unit Sector

Interior Decoration and Design

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Analyse project	1.1 Review, confirm and clarify project brief 1.2 Assess and confirm parameters for the project 1.3 Select resources appropriate to work requirements and check for operational effectiveness 1.4 Establish and maintain communication with relevant personnel in accordance with project requirements and/or workplace practices
2. Select rendering techniques	2.1 Determine rendering requirements for project presentation requirements 2.2 Select rendering software with capability to achieve desired effects

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	within the project timeframe and budget 2.3 Assess equipment suitability for rendering software and achieving desired effects 2.4 Plan rendering tasks in accordance with project requirements
3. Apply rendering functions	3.1 Select and apply image resolutions to meet project requirements 3.2 Select and apply ratios to meet project requirements 3.3 Adjust renderer attributes to obtain desired visual effects
4. Check render integrity and quality	4.1 Test and refine render integrity through critical evaluation 4.2 Identify and re-link missing images and textures to obtain required quality 4.3 Test render duration for optimising process 4.4 Test alpha channels and opacity matts 4.5 Test render layers and passes
5. Optimise images for render processes	5.1 Identify and complete relevant pre-rendering optimisations tasks 5.2 Adjust and refine renderer attributes to optimise render duration 5.3 Select appropriate file output format, file names and output destinations 5.4 Select appropriate file names and output destinations
6. Render model and extract selected views	6.1 Complete final rendering processes and review to ensure compliance with system and client requirements 6.2 Correctly format files for required print and digital presentation outputs 6.3 Store in accordance with system requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to MSFID6002 Apply 3-D visualisation techniques to represent interior designs.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFID6018 Apply 3D digital visualisation techniques to represent interior designs

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- used creative and critical thinking processes to render digital models for representation of interior design project intentions using digital software applications, and created rendered perspective views, including the creation of the following effects:
 - lighting
 - shading
 - rendering
 - furniture and fittings
 - reflections and translucency
 - foreground objects
 - integrating realistic background and views
 - accurate representation of materiality and texture
 - mood and atmosphere
 - simulated day and night-time effects
 - texturing.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- elements and principles of design
- ergonomics, anthropometrics, proxemics and aesthetic values
- mathematical procedures for estimation and measurement
- standards, requirements, policies and procedures for producing digital rendering
- types of digital rendering software packages, their features and capabilities, and how they are manipulated to achieve desired outcomes
- the digital rendering process and how it can be optimized
- equipment requirements and procedures for their safe use, operation and maintenance
- types of problems with digital rendering and how they can be resolved
- methods of storage for rendered components

- procedures for the recording, reporting and maintenance of digital rendering records and information
- applying rendering tasks using and refining render components for best performance
- techniques for visualising 2D notions into 3D space.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - completed designs in modelling software for extraction
 - digital hardware and software.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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