

Competency Profile

ENTERTAINMENT RIGGERS

A Competency Analysis

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Recommended Skills for

Entertainment Riggers

COMPETENCY PROFILE

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Canada



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INTRODUCTION

This document presents the outcomes of an occupational analysis (1) for **ENTERTAINMENT RIGGERS**. It identifies the combined competencies that make up the work of Entertainment Riggers.

This exercise has been initiated and coordinated by the Cultural Human Resources Council (CHRC) thanks to the financial support of the Government of Canada's Sector Council Program.

The Cultural Human Resources Council (www.culturalhrc.ca) is a national organization dedicated to strengthening Canada's cultural workforce and improving the HR environment within the cultural sector. It strives to be at the centre of vision and forward thinking in the area of cultural human resources development. CHRC members include self-employed artists, cultural workers and arts organizations from the many disciplines which comprise the sector.

BACKGROUND

Entertainment Riggers work in various fields (performing arts, live performances, cinema and special events), organizational environments (small, medium and large organizations), contexts and working conditions (i.e. in interior and exterior as well as in permanent and temporary settings). The scope of this analysis has therefore been defined to take into account and to reflect these differences and variations.

The primary tasks of entertainment riggers are "to install rigging equipment that will be used to attach or fasten the stage and acrobatic equipment required by the show; the rigger is also responsible for installing and operating safety devices for people working at height, such as performers, technicians, properties people, etc.; (...) in circus work, riggers are also in charge of installing acrobatic apparatus." (2)

The **Competency Profile** is to be used in conjunction with the **Chart of Competencies for ENTERTAINMENT RIGGERS**.

The **Competency Chart** and **Profile** can be used by individuals to evaluate their own skills and to determine areas where they should pursue additional training. On a corporate level, this material can be applied in developing competency-based professional development programs, negotiating and customizing training programs, developing/reviewing career planning programs, recruitment profiles and individual position descriptions

- (1) The expressions 'occupational analysis' and 'competency profile' are used interchangeably in this document
- (2) Montreal School Board. Rigger. Work Status Analysis Report. February 2004. P.1

METHODOLOGY

The Cultural Human Resources Council has chosen the DACUM (Developing A CURriculum) model to conduct this analysis. One of the key features of DACUM is to rely on a group of expert practitioners to review all the competencies required to function effectively in a given occupation.

The combined **Chart of Competencies** and **Profile** present four levels of analysis:

1. A series of **General Areas of Competence**, more commonly called **GACs**. A GAC describes a major function or responsibility of a particular profession, trade or position. There are two types of GACs: **General Areas of Professional Competence** (GACs A to I inclusively) and **General Areas of General Competence** (GACs J and K).
2. Each GAC is further defined into **skills** (competencies). The skills, as well as the GACs, are identified in behavioral terms and thus begin with an action verb depicting the applied behavior.
3. Each skill is further analyzed into **subskills**. A subskill is an intermediate step between the whole skill and the detailed actions associated with practicing the skill.
4. A (non-exhaustive) series of **important actions** and **key general competencies** has been identified; these may be used as performance indicators, providing the criteria by which competence can be assessed.

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SUMMARY – CHART OF COMPETENCIES

A RIGGER MUST BE ABLE TO:

PROFESSIONAL COMPETENCIES

A. PLAN THE RIGGING WORK

1. Analyse plans, technical documents and drawings
2. Assess feasibility of task
3. Determine loads and forces
4. Identify rigging requirements
5. Identify access requirements
6. Generate a rigging plot
7. Identify health and safety requirements
8. Determine required equipment
9. Estimate resources, time and costs
10. Identify organisational structure and chain of command
11. Identify and report problems

B. PREPARE RIGGING EQUIPMENT AND SYSTEMS

1. Load/unload equipment (for transport)
2. Perform layout
3. Fabricate components
4. Assign tasks
5. Inspect equipment
6. Assemble rigging equipment

C. INSTALL RIGGING EQUIPMENT

1. Inspect safety equipment
2. Install fall protection equipment
3. Access work station
4. Check and install anchors
5. Raise rigging equipment
6. Attach and secure rigging equipment
7. Inspect and verify installation
8. Perform/run tests
9. Make required adjustments
10. Install grids/catwalks
11. Install/operate motorized systems
12. Install/operate counter-weight systems
13. Install/operate manual systems

D. INSTALL PRODUCTION ELEMENTS

1. Assemble, adjust and check structure supporting production elements
2. Attach production elements
3. Fly production elements
4. Set/mark trims
5. Stabilise production elements

E. INSTALL AND OPERATE PERFORMANCE/PERFORMER APPARATUS

1. Install and check performer safety devices
2. Attach performer apparatus
3. Position and level performer aerial apparatus
4. Test apparatus
5. Collaborate with other departments to meet the needs of production
6. Mark settings for operation (spike marks)
7. Perform final inspection and secure/lock out all rigging components
8. Operate performer apparatus during rehearsals and performance

F. INSPECT AND MAINTAIN RIGGING EQUIPMENT AND SYSTEMS

1. Determine and follow inspection schedule
2. Determine inspection/maintenance requirements
3. Ensure compliance of rigging equipment and systems within load capacities
4. Perform sensory inspection
5. Perform operational inspection
6. Replace/repair parts
7. Readjust components
8. Document inspection and maintenance

G. STRIKE RIGGING EQUIPMENT AND SYSTEMS

1. Plan/organise strike
2. Remove production elements
3. Remove rigging equipment
4. Remove safety equipment
5. Store rigging/safety equipment

H. UTILIZE RIGGING MATERIAL, EQUIPMENT, INSTRUMENTS AND TOOLS

1. Utilise wire rope
2. Utilise rope and cordage
3. Utilise chains
4. Utilise hoisting devices
5. Utilise tensioning devices
6. Utilise pulleys/blocks
7. Utilise anchors/fasteners
8. Utilise connecting hardware
9. Utilise slings
10. Utilise pneumatic tools
11. Utilise electric tools
12. Utilise hand tools
13. Utilise load measuring devices
14. Utilise measuring tools
15. Utilise anemometers
16. Utilise laser tools
17. Utilise electrical testing equipment
18. Utilise safety equipment
19. Utilise specialised rigging tools
20. Utilise elevating work platform
21. Utilise cargo handling machinery and equipment
22. Utilise rope access equipment/system
23. Utilise communication devices
24. Utilise scaffolds
25. Utilise ladders
26. Utilise swing stage/work platforms

I. COMPLY WITH PERTINENT LAWS, REGULATIONS, STANDARDS AND BEST PRACTICES

1. Ensure safe work environment
2. Execute emergency procedures
3. Comply with fire code
4. Comply with electrical code
5. Comply with WHMIS
6. Comply with compressed gas regulations
7. Comply with occupational health and safety laws and regulations
8. Comply with employment standards and contracts
9. Comply with HR policies
10. Comply with regulations relative to overhead lifting
11. Comply with manufacturers' specifications
12. Comply with fall protection regulations
13. Follow industry best practices

GENERAL COMPETENCIES

J. DEMONSTRATE COMMUNICATION AND INTERPERSONAL SKILLS

1. Demonstrate teamwork skills
2. Communicate verbally in a clear and concise manner
3. Utilise industry terminology
4. Adapt language to recipient
5. Practice active listening
6. Display tact and diplomacy
7. Demonstrate sensitivity to other people's needs
8. Exercise patience and tolerance
9. Use computers and e-communication tools
10. Use hand signals
11. Communicate graphically

K. DEMONSTRATE PERSONAL SKILLS

1. Demonstrate thoroughness and attention to details
2. Work methodically
3. Demonstrate analytical skills
4. Adapt to changes
5. Handle urgent situations with calm
6. Work under pressure
7. Meet deadlines
8. Demonstrate planning and organisational skills
9. Update one's skills
10. Make decisions
11. Anticipate situations
12. See the "big picture"
13. Demonstrate a sense of responsibility
14. Recognise limits of abilities and competencies
15. Follow instructions
16. Work efficiently
17. Maintain focus
18. Demonstrate health and safety awareness
19. Demonstrate problem solving skills
20. Demonstrate hand-eye coordination
21. Work at heights
22. Work in confined areas
23. Demonstrate mechanical aptitude

Please refer to the chart of competencies with rankings: www.culturalhrc.ca/minisites/Live_performing_arts/e/PDFs/CHRC_Entertainment_Riggers_Chart_Rankings-en.pdf

COMPETENCY PROFILE

AN ENTERTAINMENT RIGGER
MUST BE ABLE TO...

A RIGGER must be able to: **A. PLAN THE RIGGING WORK**

SKILLS	SUBSKILLS	IMPORTANT ACTIONS	GENERAL COMPETENCIES
1. Analyse plans, technical documents and drawings	1.1 Confirm latest approved version 1.2 Verify accuracy 1.3 Interpret scale and orientation	<ul style="list-style-type: none"> • Track revisions • Confer with parties involved • Compare with known data • Identify discrepancies • Utilise scale bar • Utilise drawing scale • Utilise direction indicator • Utilise polar or Cartesian coordinates 	Most critical interpersonal and/or personal skills associated with the competency as a whole: <ul style="list-style-type: none"> • DEMONSTRATE ANALYTICAL SKILLS (K3) • DEMONSTRATE THOROUGHNESS AND ATTENTION TO DETAILS (K1)
2. Assess feasibility of task	2.1 Assess physical feasibility 2.2 Assess technical feasibility	<ul style="list-style-type: none"> • Survey/inspect site • Identify physical limitations • Determine structural capacity of venue • Interpret facility specs and drawings 	
3. Determine loads and forces	3.1 Evaluate geometry of elements 3.2 Determine suspension geometry 3.3 Determine loads	<ul style="list-style-type: none"> • Measure size of elements • Determine weight of elements • Analyse position of loads • Analyse sling length and forces • Determine hoisting procedures • Determine all UDLs (uniformly distributed loads) • Determine all point loads • Determine required number of picks points on hanging elements • Analyse tilting of a 2-point object. • Determine shock and dynamic loads • Estimate loads/forces acting on ground anchors • Estimate environmental loads 	<ul style="list-style-type: none"> • DEMONSTRATE THOROUGHNESS AND ATTENTION TO DETAILS (K1) • DEMONSTRATE ANALYTICAL SKILLS (K3)