



2024

BRICS SKILLS COMPETITION

(BRICS FUTURE SKILLS & TECHNOLOGY CHALLENGE)

Digital Media Interaction Design

BRICS-FS-34

Technical Description

(International Final)

August, 2024



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1 Introduction

1.1 Name and description of the skill competition

1.1.1 Name of the skill competition

2024 BRICS Vocational Skills Competition (BRICS Future Skills and Technology Challenge) Digital Media Interaction Design (Digital Media Interaction Design). Event number: BRICS-FS-34.

1.1.2 Description of the skill competition

This competition is designed around the development trend of digital media technology and the typical job skills in the application of digital media technology in related industries.

This competition intends to add the relevant content of new knowledge, new technology and new skills based on the main work tasks of the digital media interaction design technicians and the professional skills specifications of the digital media interaction design industry, and combining with the practical work requirements of the digital media interaction designers. To promote learning, training, evaluation, and construction, we will provide a solid foundation for comprehensively improving the skills of relevant employees and promoting high-quality economic development, foster a social trend of glorious labor, valuable skills, and great creation, and provide a strong talent guarantee for the development of the new generation of information technology in the BRICS countries.

1.2 Relevance and importance of this document

This document contains information on the criteria required for the skills competition, as well as the evaluation principles, methods and procedures for managing the competition.

Each expert and contestant must understand and understand this technical description.

If there is any conflict between the technical instructions of the different languages, the Chinese version shall prevail.

1.3 Participants

This event takes the form of a team, and the competitors need to complete all the competition modules within the specified time.

Each team is composed of 3 players, and each team can be equipped with 1-2 guidance experts.

2 Skills standard

2.1 General description of the skill standards

Skills standards define knowledge, understanding, and specific skills that are best international practices in technical and professional performance. It will reflect a global global consensus on what the relevant job role or profession is represented in industry and business.

The skill competition is designed to reflect the international best practices described by the skill standard and the extent to which it can reach. Therefore, the standard is a guide to the training and preparation required for skills competitions.

The standard is divided into different sections with the title and reference numbers.

Each fraction was assigned a percentage of the total score to indicate its relative importance in the criteria. This is often referred to as the "weights". The sum score for all percentages is 100. The weights determine the allocation of the scores in the scoring criteria.

Through the competition questions, the scoring scheme only evaluates the skills listed in the standard. They will reflect the standards as fully as possible under the constraints of the skills competition.

The scoring scheme will be within the actual possible range to the scores assigned in the criteria. A 5% change is allowed, but the weight assigned by the standard specification shall not be changed.

2.2 Skill standards

Related requirements

1	Digital media material processing
	<p>Theories (should know):</p> <ul style="list-style-type: none"> – Basic use ability of graphics and image processing software; – Audio and video non-editing software basic use ability.
	<p>Working skills (yes):</p> <ul style="list-style-type: none"> – Use graphics images, software to adjust the color, layer style, mixed mode, filter and other operations; – Use audio and video non-editing software for audio and video material cutting, merging and other processing, material MG animation production, post-packaging and other special effects added;
2	Digital media content production
	<p>Theories (should know):</p> <ul style="list-style-type: none"> – Operation skills and basic use ability of the all-media platform.
	<p>Working skills (yes):</p> <ul style="list-style-type: none"> – Ability to analyze submirror scripts; – Master the use method of visual H5 editing tool, can set functional components, controls (attribute control), animation (frame animation, original animation, preset animation, etc.), interaction (trigger condition setting), logic (judgment), etc.
3	Digital media aggregation release
	<p>Theories (should know):</p> <ul style="list-style-type: none"> – Operation skills and basic use ability of the all-media platform; – Basic knowledge of digital media copywriting and typesetting; – Need to master the user operation, activity operation, manuscripts and other knowledge.
	<p>Working skills (yes):</p> <ul style="list-style-type: none"> – Master relevant operation skills; present new media channels with text, pictures or videos; – Use the platform editing tools to beautify the text, pictures, videos, illustrations, and finally release the works and other operations.

3 Of the scoring scheme

3.1 Scoring method

The scoring of this competition will be scored by the referee group offline, and all experts will be graded in the form of groups under the organization of the chief expert. Implement the principles of fairness, justice and openness of the competition. The score is based on the achievements of the players in the practical task, and the results of the competition through the scoring referee, and takes into account the comprehensive evaluation of teamwork spirit and professional quality.

If the player cheor other violations during the competition, the referee will deal with it according to the violation of the player, and if the case is serious, the result will be cancelled.

3.2 Scoring rules

1. The scoring method is step by step score and accumulated total score. Regardless of the individual scores of the contestants, only the team score is recorded.

2. The participating team shall not submit any further operation after the completion of the competition task or the termination of the competition time. Otherwise, it will be considered as cheating in the competition.

3. In the course of the competition, if the contestant does not obey the referee's ruling, disturb the order of the competition field, or engage in fraud, the chief referee will deduct the corresponding points according to the regulations. If the circumstances are serious, the contestant will be disqualified, the result of the competition will be recorded as 0 points, and the players will withdraw from the competition site.

4. Participants are not allowed to mark the information of the team on the result of the competition. If found, the qualification of the award will be cancelled.

3.3 Evaluation basis

In the process of competition design, the choice of criteria and evaluation methods will be determined through the scoring scheme and competition questions.

Evaluation basis, including but not limited to: industry knowledge application, computer (key, mouse, etc.) and the operation of office software, competition platform and the basic operation of related software, interactive animation parameters attributes, interaction, logic setting skills, graphics, video clips related

software basic operation, the effect of the final rendering, etc.

4 Competition questions

4.1 Common Precautions

Whether it is a single module or a series of independent or associated modules, the competition questions can evaluate the application of knowledge, skills, and behavior defined in the standard (Skill Specification).

Combined with the scoring scheme, the purpose of the competition questions is to provide comprehensive, balanced and real opportunities for standard evaluation and scoring. The relationship between the criteria and the criteria will be a key indicator of quality, just as is the relationship between the criteria and actual performance.

The competition questions do not include aspects other than the criteria and do not affect the balance of scores within the criteria.

The evaluation of knowledge and understanding is only conducted through its application in practical work.

4.2 Format / frame of the competition questions

The competition questions are composed of three relatively independent and connected modules:

Module A: Digital media material processing

Module B: Digital media content production

Module C: Digital media aggregation and release

4.3 Time allocation and score weight of competition questions

Module	Duration (min)	Score value weight (%)
Module A: Digital media material processing	100	40
Module B: Digital media content production	120	50

Module	Duration (min)	Score value weight (%)
Module C: Digital media aggregation and release	20	10
Amount to	240	100

4.4 Content and assessment points of each module

The content of the competition focuses on the definition of the occupation and the main work content, combined with the actual situation of the industry, appropriately adds the relevant content of new knowledge, new technology, new equipment, and new skills, and comprehensively examines the comprehensive ability of the contestants in the industry application.

Module number	Module name	Skills assessment point
A	Digital media material processing	The assessment players process the materials, mainly including: word processing, processing audio materials, processing image materials, processing graphics materials, processing animation materials, processing video materials. Assess the operation of Photoshop digital drawing software, graphics and image processing capability; assess the operation of Premiere, After Effect and other software, video and audio materials and various graphics, special effects, scenes, animation models, application templates and other elements to complete the rapid production of digital media video.
B	Digital media, and content production	Investigate the ability of the contestants to operate the competition system platform, design and complete the digital media interactive production works. It mainly includes: the production of key frames, progress, curve deformation, mask and other animations, the operation ability of timeline and layer, and no code logic interaction ability.
C	Digital media,	According to the requirements of the task book,

	the aggregate release	contestants should accurately manage their time and be familiar with the operation process, edit text, pictures, audio and video, visual interactive content and interactive interface content, form a complete digital media works, and publish the completed digital media works.
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4.5 Competition sample questions are announced

The sample questions will be available through the website (<http://www.brskills.com/jzzy/productjs.html>) promulgate.

5. Skill management and communication

5.1 And the expert panel

The skill expert group is composed of the chief expert, deputy chief expert and expert members, who are responsible for jointly further revising the technical documents of the competition and the daily skill management.

5.2 Pre-race answer

Online communication will be conducted using instant messaging tools or online meetings, and the Chinese organization will release the meeting time uniformly.

6 Safety requirements

6.1 Organizational structure

1. Set up the competition safety guarantee group, and the team leader shall be the director of the competition executive Committee. Members are the persons responsible for the safety of each field. A safety responsible person shall be established in the field, which shall take full responsibility for the safety of the field. It shall be responsible for mobilizing rescue teams and professional rescue personnel to arrange the evacuation of personnel in the field.

2. Establish a coordination mechanism with public security, fire protection, judicial administration, transportation, health, food, quality inspection and other

relevant departments to ensure the safety of the competition, formulate emergency plans, and timely deal with emergencies. Set up a special line of contact for medical personnel, fire personnel and security personnel, determine the contact person, and contact by the person in charge of the site security. The competition venue layout and the use of equipment shall be carried out in strict accordance with the safety construction regulations. The site is divided into areas, and evacuation channels are set according to safety requirements.

6.2 Competition safety management

1. The installation of competition equipment and facilities shall be constructed in strict accordance with the safety construction standards, and the power wiring and electrical installation shall be constructed according to the specifications.

2. Arrange fire extinguishers according to fire safety requirements and designate the responsible person to use them in emergency.

3. The norms, regulations and qualification certificate requirements of the national (or industry) related occupational post safety are specified in the competition procedures.

4. The executive committee shall conduct safety training for all the referees and staff of the competition before the competition. According to the Labor Law of the People's Republic of China and other laws and regulations, a sound safety accident prevention system shall be established, and the players shall be trained before the competition to avoid personal injury accidents.

5. The executive committee will establish a special plan to ensure the safety of the process of competition proposition, storage, distribution, recycling and evaluation.

6.3 Safety management of the competition environment

1. Before the competition, the executive committee shall organize special personnel to inspect the competition site, accommodation place and transportation guarantee, and put forward clear requirements for safety work. The layout of the stadium, the equipment and equipment in the stadium shall comply with the relevant national safety regulations. And carry out the field simulation test, find, record and solve the possible problems. The organizer shall eliminate the potential safety risks before the competition according to the requirements of the competition executive committee.

2. A police cordon shall be set up around the stadium to prevent irrelevant personnel from entering and causing accidents. Provide necessary labor protection for the players in the competition site according to the requirements of relevant

professional positions. In the dangerous operation link, the referee should strictly prevent the players from making mistakes.

3. In order to ensure the smooth progress of the competition, the organizer established the corresponding security system during the competition, and at the same time by the security, campus environment and health and medical security group implementation.

(1) During the competition, all vehicles and personnel entering the competition area need vouchers to enter and show them to the staff voluntarily.

(2) The referee shall supervise the whole inspection process of hardware and software equipment, and remind and stop the hidden dangers in time.

(3) During the competition, the players should save the plate in time when the application of the equipment to avoid data loss caused by sudden power failure.

(4) All kinds of personnel shall strictly abide by the rules of the competition field, and uniformly arrange the hardware and software environment required for the competition field. Players are not allowed to bring any mobile storage, auxiliary tools or mobile communication into the stadium without permission.

(5) If there are safety problems, under the command of the security personnel, quickly evacuate the scene according to the emergency evacuation route.

4. In the areas where the competition venue should set up complete instruction signs and increase the guiding personnel, the executive committee and the organizers shall open up standby channels.

5. During the competition, the competition organizers will increase their strength in key positions and establish a safety management log.

6. In the players into the position, the referee staff into the workplace, the undertaking unit shall remind and supervise the contestants, the referee staff is forbidden to carry communication, photographic recording equipment, it is forbidden to carry without permission record equipment, and security equipment, to enter the important area for security.

6.4 Guarantee of living conditions

1. During the competition, in principle, the competition organizers will uniformly arrange the accommodation of the contestants and the instructors. The undertaking unit shall respect the religious beliefs and cultural customs of the minority participants, and arrange the food and living of the minority participants and teachers according to the relevant national ethnic and religious policies.

2. The accommodation place arranged during the competition must have the qualification of hotel and accommodation business license.

3. During the competition, the competition area executive committee is responsible for the traffic safety of the organized visit and observation activities.

4. In addition to necessary security isolation measures, strictly abide by relevant national laws and regulations to protect personal privacy and personal freedom.

6.5 Team Responsibilities

1. When organizing the team, each participant shall arrange to purchase personal accident insurance for the competitors during the competition.

2. After the formation of each unit team, relevant management systems shall be formulated, and safety education shall be conducted for all the contestants and instructors.

3. All participating teams shall strengthen the safety management of the participants and connect with the safety management of the venue.

6.6 Emergency treatment

In case of an accident during the competition, the discoverer shall report to the executive committee at the first time and take measures to avoid the expansion of the situation. The competition executive committee shall immediately start the plan to solve the problem. Events with major safety problems shall be suspended by the regional executive committee. After the event, the executive committee of the competition area shall issue a detailed report.

6.7 Punishment measures

1. In case of a major safety accident in the event, the undertaking qualification of the undertaking unit shall be suspended.

2. If a major safety accident is caused due to the participating team, the applicant shall be disqualified.

3. If the participating team has a serious safety accident and the prompt and warning of the stadium staff is invalid, it will be disqualified to continue the competition.

4. If the event staff violates the rules, they shall be investigated for responsibility according to the corresponding system. If the circumstances are bad and such a major safety accident is caused, the judicial organ shall investigate the corresponding legal responsibility.

7 Materials and equipment

7.1 Technology platform

This competition adopts the "North Test- -all-media comprehensive practical training and competition system platform"

7.2 List of competition equipment

1. Participants will install the following tool software

Device name	Quantity	Remarks
PC	One set for each contestant	Chassis: CPU: Intel i5 9400 and above Memory capacity: 16GB and above Hard disk: Above 200GB Graphics card: 6G alone or above Fittings of a machine: LCD: 22 inches (resolution 1920 * 1080) and above Keyboard, mouse, and headset (1 set)
U tray	One for each team	32GB or above (3.0 interface, downward compatibility 2.0)

2. The contestant PC installed the following software platform

Software type	Software	Remarks
Operating system	Windows 10 64 Bit OS	Professional edition
Typewriting	QQ pinyin, QQ five-pen input method	Chinese version
Browser	Google Chrome Browser	Chinese version
Digital media platform	All-media comprehensive practical training and competition system V1.0	Beijing North Test Digital Technology Co., LTD
Support software	Office 2016	Chinese version
	Photoshop CC 2017	Chinese version

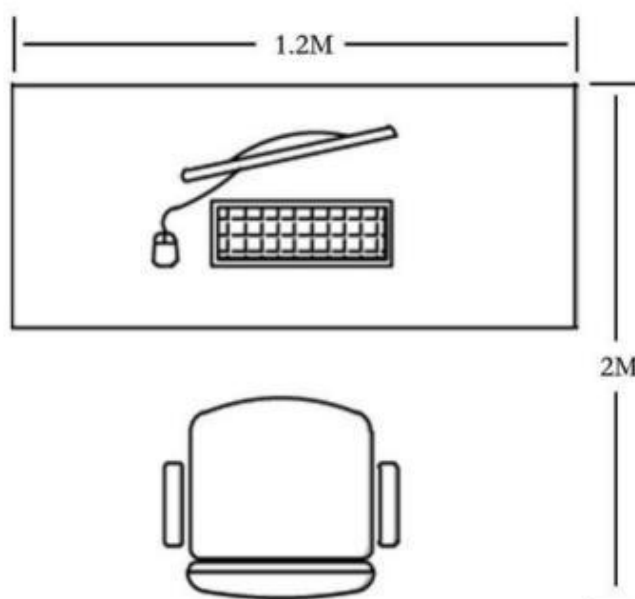
	Premiere CC 2017	Chinese version
	After Effects CC 2017	Chinese version
	Format Factory	Chinese version
	Potplayer	Chinese version

7.3 Materials and equipment prohibited in the skill area

This event does not need to carry any tools and materials. Any materials and equipment carried by other personnel shall be declared (presented) to the expert. Experts may prohibit the use of any item unrelated to the performance of the task or that may confer an unfair advantage on a competitor.

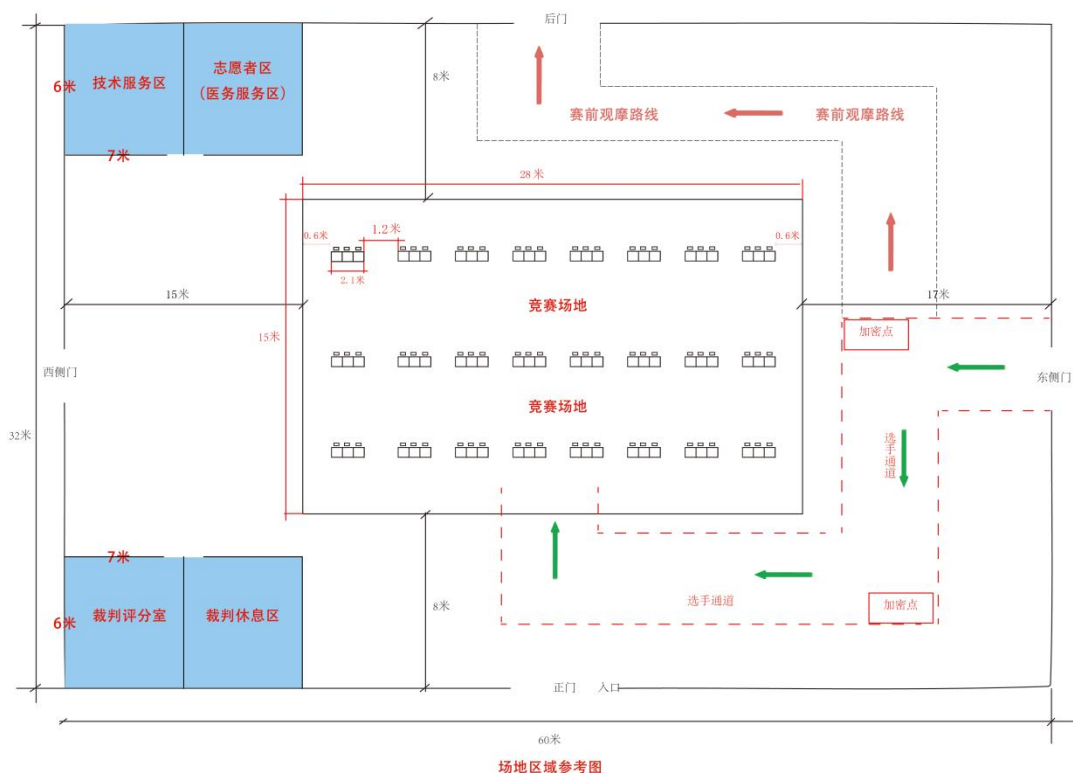
7.4 The proposed station layout and regional layout

1. Station diagram, and provide the station layout diagram with clear specifications (length, width).For instance:



2. Field map.For instance:

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