

NATIONAL SKILLS COMPETITION

Competitions Sub-Committee

Office Software Application

(OSA#3)

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INTRODUCTION

WorldSkills Jamaica , by a resolution of the National Organizing Committee and in accordance with the Constitution, the Standing Orders and the Competition Rules, has adopted the following minimum requirements for this skill for the National Skills Competition.

The Technical Description consists of the following:

- Section 1 – Technical/Competition Description (TD)
- Section 2 – Project Design Criteria (PD)
- Section 3 – Skill Management Procedures (SM)
- Section 4 – Workshop Setup (WS)
- Section 5 – Infrastructure List (IL)
- Section 6 – Appendices

Effective 01.04.07

Grace Mclean (GM)

Chairman, Competition Committee

01.04.07

Daphne Simmonds

Co- chair

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The National Skills Competitions Sub-Committee has adopted the following minimum requirements for applicants' entry in the National Skills Competition.

The effective date will be that date on which this document is issued, and is subject to change by the National Skills Competition Organizing Committee.

- **Area A: Business Solutions Using MS Office (Word and Excel)**
 - **Area B: Web Page Design**
 - **Area C: Application Development**
-

Area A

1. NAME AND DESCRIPTION OF AREA

1.1 The name of the area is:

1.1.1. Information Technology – Office software applications

1.2 Format – Live Demonstration of Competence

1.1.1 No teamwork required. Applicants enter as individual contestants

1.1.2 Individuals will be assigned tasks that must be executed within the specified time frame.

1.3 This competition is designed to test specialist users of software applications.

The trade involves the ability to:

1.1.3 Undertake document processing

1.1.4 Create and use spreadsheets

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- 1.3.4 Create and edit application macros and make use of software customization facilities (the competitor should be able to choose the method of creation/editing – no question should be of the level that could only be resolved using programming tools e.g. VBA)

NB: This technical description must be known to every candidate.

2. ASSESSMENT

2.1 Schedule of Assessment

	Day 1	Day 2
AM	Office Software Applications	Office Software Applications
PM	Office Software Applications	

2.2 Sections Weighting

The sections are weighed as follows:

Spreadsheet 40%

Document Processing 40%

2.3 COMPETENCIES TO BE DEMONSTRATED

Office Software Applications (**Word and Excel**)

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Design, create and manipulate business documents to a given standard to meet a given requirement. Including:

2.3.1 Document Processing (MS Word)

2.3.2 Create informative and well presented reports comprising text and **multi-media**;

2.3.3 Merge data from spreadsheets into your documents.

2.3.4 Undertake mail merge operations;

2.3.5 Write and edit macros, templates and produce buttons to automate document-processing tasks;

2.3.6 Utilize forms for data input

2.3.7 The following could form part of the skills assessment:

- Headers and footers
- Use advanced features of document processing software to produce, format and edit documents, for example using tools such as indexes, tables of content, fields, track changes etc.

2.3.8 Spreadsheets (MS Excel)

2.3.9 Design and create a spreadsheet of up to 40 rows and 10 columns to solve a problem relating to the scenario provided.

2.3.10 undertake “what if” style reporting from the spreadsheet.

2.3.11 reduce the specified reports.

2.3.12 Undertake the following tasks:

- Enter data
- Edit data
- Append data

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- Produce graphs
- Print reports.
- Write macros and provide buttons to automate tasks
- Use conditional statements

2.3.13 The following could form part of the skills assessment:

- Entry of numbers, labels and formulas
- Different formats for number entry and printout
- Row and column arithmetic
- Modify the structure of a given spreadsheet
- Hide data columns or ranges
- Print numerical and graphical results
- Use functions to obtain mathematical solutions
- Manipulate multiple spreadsheets, for example linking and embedding data
- Naming of print ranges

3. SKILL MANAGEMENT PROCEDURES (SM)

3.1 DOCUMENTS REQUIRED

3.1.1 The Chief Expert will have available a current copy of all documents associated with this skill for the Competition.

3.1.2 The documents required are:

- Technical Description
- Competition Rules
- Health and Safety documents
- QAMS – all documents
- Any other documents referred to in the documents listed above.

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3.1.3 While it is understood that the Chief Expert will have a copy of these documents in there shall also be a complete set that is available for the experts and other competition workers.

3.1.4 The Chief Expert is expected to have a sound knowledge of the requirements and procedures specified in the documentation.

3.1.5 The Jury President is expected to have a thorough knowledge and understanding of the requirements and procedures specified in the documentation.

9.1 PRE-COMPETITION RESPONSIBILITIES

3.2.1 In the period between one National Skills Competition and the next, the elected Chief Expert is responsible to ensure that the requirements of Section 2 – Project Design Criteria are complied with.

9.2 SKILL MANAGEMENT PROCEDURES FOR THE CHIEF EXPERTS

The following speaks to the procedures prior to and during the Competition

3.3.1 The procedures specified below must be adhered to.

3.3.2 On arrival at the Competition site for the first time, the Chief Expert must:

- Welcome the experts and ensure introductions are made
- Inform them of their duties and responsibilities in terms of the Competition Rules and Standing Orders
- Ensure that the project is endorsed by all the experts and that a copy is signed by all the experts

3.3.3 The Chief Expert will then divide the experts into teams for the following activities:

- Verify that the material on site is appropriate and sufficient

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- Verify again that the quantities of material as specified on the material list is accurate
 - Develop a program for the competitors to complete the modules
 - Develop timetables for activities
 - Set up equipment
 - Confirm that the layout, work areas and equipment are in accordance with the workshop setup requirements
 - Confirm that all machinery/equipment is in a safe working order
 - Confirm that all workstations/machinery/equipment are in accordance with the plan, and that they are numbered
 - Confirm that there is sufficient illumination
 - Confirm that there is sufficient space for the competitors to work efficiently
 - Confirm that the barriers are far enough removed from the competitors to ensure that there will be no interference, and if they are not, set up a roster among the experts to police the area during the Competition
 - If necessary, set up duty rosters for activities during the Competition – e.g. keeping watch during lunch, preventing access of unauthorised persons, etc
- 3.3.4 The Chief Expert will then divide the experts into teams for purpose of marking and setting up marking schedules in accordance with the requirements.
- 3.3.5 Suggestions and comments for the revision and improvement of the Technical Description are to be provided to the Deputy Chief Expert in writing. The Deputy Chief Expert will reduce the information to a single typed document ready for discussion by all experts. Prior to leaving the

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- Competition site, the Chief Expert, the Deputy Chief Expert and the Jury President will facilitate the discussion and revision of the Technical Description.
- 3.3.6 At any time that a unanimous decision is not achieved within a reasonable time, the Chief Expert will put the matter under discussion to the vote. A majority will be 50% of the experts present plus one. This decision will be final. In the event that an expert is absent at the time that the vote takes place, he/she has the right to be informed of the decision but the matter will not be raised again or voted upon again. The exception to this majority rule will be in the case of approval of the changes to the Technical Description, where the majority of 80% is required.
- 3.3.7 In the event that an extension of time is requested for the Competition to exceed the allotted hours, the matter must be discussed with the Jury President. All possible alternative solutions must be investigated before approval of an extension of time is requested, or will be approved.
- 3.3.8 Prior to the end of the Competition, the Jury President will facilitate the selection of the Chief Expert and Deputy Chief Expert for the next national Skills Competition.
- 3.3.9 Experts are eligible for selection as a Chief Expert if they:
- Have attended the National Skills Competition at least twice before (if less than 4 experts have been to the National Skills Competition before, this criterion may be relaxed at the discretion of the Jury President)
 - Demonstrate a high degree of expertise in the skill
 - Demonstrate leadership qualities.
 - Are competent using a computer and the Internet – specifically to facilitate the Discussion Forum for their skill category.
- 3.3.10 The process by which selection will take place is by secret ballot and is as follows:

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- Each expert present will list their choice of three experts in order of preference • The Jury President will allocate a score of three (3) points to each experts first preference, two (2) points to the second preference and one (1) point to the third preference
 - The Jury President will then calculate total scores and announce the three highest scoring experts
 - The expert with the highest score will be appointed Chief Expert for the next National Skills Competition
 - If the first choice cannot attend, then the second choice will be Chief Expert
 - If the first and second choice cannot attend, then the third choice will attend
 - If none of the choices can attend, then the jury president will appoint, or facilitate the appointment of a Chief Expert
 - The names of the selected experts will be entered into the provided documentation and signed by the Jury President and returned to the co-chair of the competitions committee.
- 3.3.11 Changes to the method of Competition design or suggestions offered for the next Competition design process or tasks must be written down and signed by 80% of the experts.
- 3.3.12 The Deputy Chief Expert's primary role is to ensure that the Technical Description is updated to reflect the technological advances of the skill category and include overall improvements for the preparation and running of the Competition. He/she will ensure that all changes to the Technical Description are entered, that all experts sign it, and that it is delivered to the co-chair of the competitions committee as a hard copy and digitally.

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3.3.13 The Deputy Chief Expert also assists in the distribution and collection of the QAMS Audit Questionnaires and assists the Chief Expert where necessary.

9.3 HONESTY AND TRANSPARENCY

3.4.1 The competitors that attend the National Skills Competition have the right to expect fair and honest treatment during the Competition in terms of the following:

- Instructions that are clear and unambiguous
- Marking schedules that provide no advantage to an opposing competitor
- All necessary equipment and material specified within the skill documentation that are required to complete the Competition
- The assistance necessary from judges and officials to ensure that he is able to complete the project. (The assistance deemed necessary will be provided equally and at the same time to all competitors present)
- No undue interference by officials or spectators that may hinder them in the completion of their project

3.4.2 Every competitor has the right to expect and demand that no opposing competitors will receive undue or unfair assistance or intervention that may provide that opposing competitor with an unfair advantage.

3.4.3 All officials and judges present on the Competition site are expected to ensure that paragraphs 3.4.1 and 3.4.2 above are complied with and maintained.

3.4.4 It is the responsibility of the Chief Expert or his Deputy to ensure that all competitors, interpreters, officials and judges comply with and maintain the integrity of the Competition, and additionally ensure that all necessary steps are taken to ensure that:

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- Outside influences do not unduly improve or decrease competitors' abilities to provide a worthy performance.
- 3.4.5 A briefing will be provided to all experts and competitors on the requirements for integrity during the Competition.
- 3.4.6 Additionally, the Chief Expert is expected to identify these and any other factors that may exist on the Competition site that may result in the contravention of paragraphs 3.4.1 and 3.4.2 above, and reduce them to a checklist for continuous reference.
- 3.4.7 In the event that any competitor, judge, official, observer or competitor compatriot is found to be attempting to gain or provide assistance in any form that may result in an unfair advantage, the Chief Expert is to immediately refer the matter to the Jury President.
- 3.4.8 The Chief Expert will receive nominations and appoint a Security Officer whose responsibility it will be to ensure that these requirements are carried out.
- 3.4.9 It will be explained to all experts and competitors that nothing is to come in or out of the site unless specified by the Chief Expert as being allowed after being briefed on this topic.
- 3.4.10 Security checks will be carried out each day on experts and competitors (by experts and competitors) upon entry and exit to the site.

9.4 INFORMATION POLICY

- 3.9.1 During the competition a modified project plan without measurements is to be made available to the public.

4. MATERIALS

- 4.1 Each competitor will require access to:
- 4.1.1 Writing paper
 - 4.1.2 Pens, pencils, ruler, stapler, eraser and pencil sharpener

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- 4.1.3 Two personal competition envelopes (These would be used for the collection of competitors work)

(End of Area A)

Area B

5. NAME AND DESCRIPTION OF AREA

5.1 The name of the area is:

1.1.2. Information technology – Web Page Design

5.2 Format – Live Demonstration of Competence

5.2.1 No teamwork required. Applicants enter as individual contestants

5.2.2 Individuals will be assigned tasks that must be executed within the specified time frame.

5.2.3 The applicants will be provided with a set of graphics that they would require to use effectively in the web pages they design.

5.3 This competition is designed to test specialist users of software applications. The trade involves the ability to:

5.3.1 Create a web site using HTML

5.3.2 Incorporate simple graphics into the Web site

5.3.3 Conform to W3C standards

5.3.4 Use at least one scripting language to add interactivity

NB: This technical description must be known to every candidate.

6. ASSESSMENT

6.1 Schedule of Assessment

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	Day 1
AM	Web Design
PM	Web Design

6.2 Sections Weighting

The sections are weighed as follows:

- 6.2.1 Demonstration of Knowledge of the HTML Language 40%
- 6.2.2 Conformance with W3C Standards 30%
- 6.2.3 Effective Use of Graphics 10%
- 6.2.4 Scripting Component – 20%

1.1.3. Competencies to be demonstrated

7.1 Use web design software to create and publish a web site containing information from a variety of sources.

7.2 The following could form part of the skills assessment:

- Design and create a web site to publicize the products/services as defined in the scenario provided.
- Create, edit and modify items such as text, tables, frames, forms and multi-media
- Integrate a database
- Selecting and applying appropriate formats to ensure efficient web site usage
- Applying animations
- Create and add navigation buttons
- Create, apply and edit templates

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- Create and modify JavaScript or other suitable scripting language
- Minimize load time by optimizing graphic sizes

Note: Students are required to use HTML programming (without the use of an Authoring tool such as FrontPage)

7. MATERIALS

8.1 Each competitor will require access to:

- Writing paper
- Pens, pencils, ruler, stapler, eraser and pencil sharpener
- Two personal competition envelopes (These would be used for the collection of competitors work)

(End of Area B)

Area C

8. NAME AND DESCRIPTION OF AREA

9.1 The name of the area is:

1.1.4. Information technology – Application Development

9.2 Format – Teams of students are encouraged to design and implement computer-based solutions that are of benefit to Jamaica. Teams are free to choose their own project as long as the published guidelines are followed.

9.2.1 Teamwork is highly recommended

9.2.2 The ten top entries will be selected by evaluating reports submitted by the teams participating in the competition. These reports must conform to the outline specified in section. **Please**

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Note that failure to conform to the report outline may result in your report being rejected.

9. REPORT SPECIFICATION

10.1 Text should be 12-pt and single-spaced, on single-sided 8½ by 11” page format, using 1” margins all around.

10.2 There should a Title page (1 page). It should include title of the project, team members, and school.

10.3 The Abstract should not be more than one page

10.4 The System Overview should be no more than three pages. This should include:

10.4.1 A detailed description of the system.

10.4.2 A description of what the system’s hardware and software is meant to accomplish.

10.4.3 A summary of the design methodology used and why it was selected.

10.4.4 Feasibility summary indicating how the project is valuable and to whom.

10.4.5 Explanation of what is unique and innovative about your project.

10.4.6 Any novel ideas that the design includes.

10.5 System design documents should include:

10.5.1 High-level conceptual diagram

10.5.2 Diagrams of the main system modules

10.5.3 Diagram indicating database/design

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10.6 The References should be no more than one page.

9.1 SUBMISSION

11.1 Reports must be submitted to the following address by August 4, 2003.

Vocational Training Development Institute

Gordon Town Rd.

P.O. Box 179, Kingston 6.

11.2 From the reports, the best ten will be selected.

11.3 These applicants will be expected to complete software development by the day of the competition.

9.2 PRESENTATION

12.1 Although developing an innovative product is noteworthy, this is usually not enough in today's world. The product must be sold. Consequently, presentation is a significant component of this competition. The top ten teams will be required to present their projects in front of a judging panel, which will weigh the project report, the demonstration of the actual operational prototype, and the team's presentation in determining the winning teams. Presentations must be of a high standard.

(End of Area C)

1.1.5. Sections 13 to 16 only applies to Areas A and B above.

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10. WORKSHOP INSTALLATIONS

13.1 Each competitor will be provided with a working area with a desk and specified equipments.

13.2 The following machines and equipment will be made available to each competitor:

- Pentium IV or current equivalent processor
- 256 MB of RAM (Memory) or current equivalent
- Standard computer hard drive (greater than 10GB)
- Color monitor capable of 1024 x 768 dpi (minimum size = 15in)
- Removable media for competitor storage (eg. Floppy disk drive or Zip disk)
- Sound card and speakers with headphones
- Color printer
- Color scanner capable of 1200 dpi

13.3 Each competitor will bring with them the necessary hand-tools of the area required to complete the project.

13.4 The following equipment will be made available to experts:

13.4.1 A separate enclosed area for confidential marking

13.4.2 A minimum of two (2) computer systems as detailed below:

Pentium IV or equivalent processor

256 MB of RAM (Memory) or equivalent

Standard computer hard drive (greater than 10GB)

Colour monitor capable of 1024 x 768 dpi (minimum size = 15in)

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Removable media for storage (eg. Floppy disks drive or Zip disk)

Sound card and speakers with headphones

Colour printer

Colour scanner capable of 1200 dpi

System compatible mouse and relevant software

Electronic device for reading competitor instructions electronically

Network capabilities of 100MBPS

13.4.3 Stationery – pens, pencils, cellotape, stapler, paper clips, etc.

13.5 The following equipment will be required for general use within the competition:

13.5.1 Large lockable cupboard for storage of files, personal computer equipment and other confidential and sensitive material

13.5.2 Lockable cupboards for storage for competitors personal equipment not required in the competition

13.5.3 High turnover networked Laser printer (minimum resolution of 600dpi)

13.5.4 Projection system with large screen to enable PowerPoint presentations completed by competitors prior to the competition to be displayed to the public

13.5.5 CD Rom burner or Zip drive.

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13.6 Software

The software used by competitors will be a representative of widely accepted International software and may represent several software producers. One important aspect will be integration potential between the various types of software. This will require a careful check but software of the following kind will be required for each computer system:

Minimum Requirements:

- Secured OS and GUI (Preferably Windows that is capable of running the required software)
- Document Processing (Microsoft Word or equivalent)
- Web Page design (Microsoft Word, Internet Explorer, Netscape Composer, PhotoShop,
- Paint-Shop-Pro or equivalent, Animation Shop or equivalent)
- Personal relational database (Microsoft Access or equivalent)
- Spreadsheet (Microsoft Excel or equivalent)
- Web Browser (Internet Explorer, Netscape Navigator or equivalent. At least two browsers are required)
- Graphics (Coreldraw, Photoshop or equivalent)
- Presentation Software (Microsoft PowerPoint or equivalent)
- Necessary software to view competitor instructions electronically
- Necessary device drivers, for all equipment provided

13.7 A secure network environment for:

Individual network storage of competitors work for each section

13.7.2 Secure area for experts marking of competitors work.

Competitors work must be separated by folder usage but grouped for easy access expert to access work

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13.7.3 A separate read-only area for storage of section data required by competitors

7.3 Support

The support required will be quite extensive and a full simulation of all equipment used for the competition **must be** tried out prior to presentation to the competitors. The simulation may require the installation of complex and sensitive equipment.

11. COMPETITION PROCEDURE

7.3.1.1 Modules will be completed on each day for all competitors so that the progressive marking can take place, and for results to be made available each day.

7.3.1.2 Competitors will have time at their disposal to familiarize themselves with material and processes. Where processes are particularly difficult, assigned personnel will demonstrate the process and the competitors will be given the opportunity to practice.

7.3.1.3 The competitors will be given all competition documents including the marking criteria prior to the commencement of the competition so that they may study the requirements

7.3.1.4 Prior to the start of the competition, each competitor will receive a detailed timetable reflecting the timing for completion of modules.

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12. JUDGING PROCEDURAL REQUIREMENTS

7.3.1.4.1.1 The experts that attend the completion will be divided into marking groups to deal with each section of the marking criteria.

7.3.1.4.1.2 Every completed module will be marked the same day on which it was completed.

13. GENERAL SAFETY REQUIREMENTS

All competitors must use ergonomic equipment when:

16.1.1 seated and working at their workstations

16.1.2 reading any relevant documentation

16.2 Competitors must keep their workspace clear of obstacles and the floor space clean of materials and equipments – any items likely to cause the competitor to trip, slip or fall.

16.3 Failure by the competitor to comply with safety directions or instructions may incur a reprimanding from the experts group.