

# Computer Game & Simulation Programming

*Interactive computer games and simulations have achieved broad acceptance and implementation in a wide variety of business and educational disciplines. Buried within many of these programs is a message that advances the player's experience from simple entertainment to edutainment. This event tests the programmer's skill in designing a functional interactive simulation/game that will both entertain and educate/inform the player.*

## 2012 National Topic

The program to be developed in this presentation and used for competition at the 2012 NLC will be:  
*Develop an entertaining simulation/game that will incorporate training or skill development for financial literacy. Genre and format of game is open to imagination and innovation of the design team. Quiz show, RPG, shopping, and more are all acceptable. Gear the game to high school students.*

## Competencies

This event consists of two (2) parts: a prejudged program and a performance component. Participants are required to complete both parts to be eligible to win an award. The program must address the topic given. Performances should describe the program completed. Specifically, the performance should address the program creation, processes used, and results of the program. All participants will compete in a preliminary performance.

**Copyright and Fair Use Information:** It is the policy of Nevada FBLA to comply with state and federal copyright laws. You may use the following web sites as a reference:

- Copyright and Fair Use Guidelines for Teachers at <http://www.mediafestival.org/copyrightchart.html>
- U. S. Copyright Office at <http://www.copyright.gov/> or <http://www.copyright.gov/title17/circ92.pdf>

## Business Education Curriculum Standards:

Business, Management and Administration; Information Technology

## Eligibility

Each chapter may submit up to five (5) entries. Entries may be created by an individual. Participants must be members who are on record in the FBLA-PBL Online Membership System as having paid dues by the officially published deadline for the current school year.

## Regulations

**Note:** Please refer to the Eligibility Guidelines at the beginning of this section for additional information.

1. Student members, not advisers, must prepare presentations. Local advisers should serve as consultants to ensure that the presentations are well organized, contain substantiated statements, and are developed in an acceptable business style.
2. Presentations should be clearly labeled using a felt-tip marker with the name of the student participants. And their school name, city, and state.

# Comp. Game & Simulation Programming continued...

## Procedure

### *Prejudged Program*

1. Any programming language or game/animation engine may be used to create the game.
2. The program must contain a minimum of five mission/tasks/levels and allow for at least two player perspectives such as First Person, Third Person, Top-Down, Side-Scrolling, etc.
3. There must be a quit command programmed to the escape key if the player wants to end the game before completing it.
4. The game must be graphical in nature and not text based.
5. It must run on Windows XP or higher, using the keyboard and mouse for controls, and run on a range of 1024 x 780 or higher.
6. It must have a title page with the game title, user interface control instructions, and active buttons for Play and Quit.
7. The game must be free of viruses/malware. Any entry with contaminated data will be disqualified.
8. Two (2) DVDs or USB thumb drive copies of program must be sent to the state office and received by the published deadline along with a Statement of Assurance and Readme file.
9. The Readme file must additionally be submitted as a hard copy and sent in with the DVDs or flash drives. The file is a statement noting the name of the participant, school and state, software program(s) used, and instructions on how to run the program and install the executable.
10. All data and programs should be contained in a master folder named STATE\_SCHOOL. Outside of the master folder, create a shortcut to the executable. If the program requires a runtime player, also create a shortcut to launch the runtime player installer.

### *Preliminary Performance*

The top ten (10) individuals—or an equal number from each group—will be scheduled for a final presentation. The participant must provide all equipment for the presentation, including a copy of the program.

Five minutes (5) will be allowed to set up and remove equipment or presentation items. The individual has seven (7) minutes to present. The judges will interact with the participant during the presentation. A timekeeper will stand at six (6) minutes and again at seven (7) minutes.

Visual aids related to the project may be used; however, no items may be left with the judges. Preliminary performances are not open to conference attendees.

### *Final Performance*

The final guidelines are the same as the preliminary guidelines. The final performance is open to conference attendees who are not performing participants of this event.



# Computer Game & Simulation Programming Production Rating Sheet

Evaluation Item	Not Demonstrated	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations	Points Earned
<b>Program Readability and Support</b>					
Storage media, uploaded folder and shortcuts formatted properly	0	1 – 2	3 – 4	5	
Source code or ANSI flowchart identifies core programming with adequate commenting to identify intent of programming blocks	0	1 – 3	4 – 7	8 – 10	
Instructions clear and executable launches from shortcut without modification	0	1 – 2	3 – 4	5	
<b>Program Structure and Game Play</b>					
Program addresses the topic	0	1 – 3	4 – 7	8 – 10	
Required information is effectively communicated and is appropriate for the audience	0	1 – 3	4 – 7	8 – 10	
User interface is intuitive and responsive to program operations	0	1 – 3	4 – 7	8 – 10	
Navigation is logical and designed to lead the player to the intended objective	0	1 – 5	6 – 10	11 - 15	
Game play incorporates both entertainment and edutainment play within topic specifications	0	1 – 2	3 – 4	5	
Game world graphics, text treatment, and special effects show creativity and cohesiveness of design	0	1 – 3	4 – 7	8 – 10	
Artistry, character, overall layout, color choice and design is creative and appealing to the target audience	0	1 – 3	4 – 7	8 – 10	
Program contains some element of skill, chance, competition or random actions that will inspire replay more than once	0	1 – 3	4 – 7	8 – 10	
Player interactions with other characters, objects, obstacles and iconic graphics are appropriate to the topic and create a feeling of immersion within the game world	0	1 – 5	6 – 10	11 - 15	
Storyline is sufficient to engage player and communicate a clear thought process and an intended, planned direction with formulation and execution of a firm idea	0	1 – 5	6 – 10	11 - 15	
Player tasks are non-trivial and receive appropriate rewards	0	1 – 5	6 – 10	11 - 15	
<b>Program Implementation and Tuning</b>					
Program demonstrates a finished and well tuned product free of errors, artifacts and glitches	0	1 – 3	4 – 7	8 – 10	
The program handled user and/or data input errors well	0	1 – 3	4 – 7	8 – 10	
Appropriate logic and data types used	0	1 – 3	4 – 7	8 – 10	
Algorithms reliable and straightforward Unusual approaches should be well documented	0	1 – 3	4 – 7	8 – 10	
Resulting outputs, screens, and messages were useful	0	1 – 3	4 – 7	8 – 10	
<b>Subtotal</b>					<b>/200 max.</b>
<b>Penalty Points</b> Deduct five (5) points for not adhering to Guidelines (maximum of fifteen [15] points). <input type="checkbox"/> 2 copies of media not received <input type="checkbox"/> Statement of Assurance not received <input type="checkbox"/> media labeled incorrectly <input type="checkbox"/> no readme file					
<b>Total Points</b>					<b>/200 max.</b>

School: \_\_\_\_\_

Judge's Name: \_\_\_\_\_

Judge's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Judge's Comments:



# Computer Game & Simulation Programming Performance Rating Sheet

Preliminary Round

Final Round

Evaluation Item	Not Demonstrated	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations	Points Earned
<b>Content</b>					
Description of the problem	0	1-2	3-4	5	
Description of the planning process used to design the program	0	1 – 3	4 – 7	8 – 10	
Description of program documentation	0	1 – 3	4 – 7	8 – 10	
Description of input/output and program parameters	0	1 – 5	6 – 10	11 - 15	
Description of how the program flows	0	1 – 7	8 – 14	15 - 20	
Description of program structures	0	1 – 5	6 – 10	11 - 15	
Description of the usefulness of the program	0	1-2	3-4	5	
<b>Delivery</b>					
Thoughts and statements are well-organized and clearly stated; appropriate business language used	0	1-2	3-4	5	
Participant(s) demonstrate self-confidence, poise, and good voice projection	0	1-2	3-4	5	
Demonstrated the ability to effectively answer questions	0	1 – 3	4 – 7	8 – 10	
<b>Subtotal</b>					<b>/100 max.</b>
<b>Time Penalty</b> Deduct five (5) points for presentation over seven (7) minutes. Time:					
<b>Dress Code Penalty</b> Deduct five (5) points when dress code is not followed.					
<b>Production</b>					<b>/200 max.</b>
<b>Total Points</b>					<b>/300 max.</b>

School: \_\_\_\_\_

Judge's Name: \_\_\_\_\_

Judge's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Judge's Comments: