

# 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.

## PROJECT COMPETENCIES

- program addresses the topic and is appropriate for the audience
- required information is effectively communicated
- user interface is intuitive and responsive to program operations
- navigation is logical and designed to lead the player to the intended objective
- program demonstrates a finished and well tuned product free of artifacts and glitches
- gameplay incorporates both entertainment and edutainment play within topic specifications
- game world graphics, text treatment, and special effects show creativity and cohesiveness of design
- artistry, character, overall layout, color choice and design is creative and appealing to the target audience
- program contains some element of skill, chance, competition, or random actions that will inspire replay more than once
- player interactions with other characters, object, obstacles, and iconic graphics are appropriate to the topic and create a feeling of immersion within the game world
- 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
- player tasks are non-trivial and receive appropriate rewards
- copyright laws are followed

## PERFORMANCE COMPETENCIES

- explanation of the program is logical and systematic
- understanding of the programming logic and coding is evident
- design process is effectively communicated
- tips, techniques, and tools used are presented including identifying the most difficult programming task(s) completed and explanation of the scenario/logic used to overcome and implement these tasks
- presentation is professionally presented
- self-confidence apparent through knowledge of content and articulation of ideas
- questions are effectively answered

## NBEA STANDARDS REINFORCED BY EVENT

Information Technology: computer architecture; operating systems, environments, and utilities; systems analysis and design; communications and networking infrastructures; network applications  
Management: technology and information management

**CAREER CLUSTER(S):** *Information Technology*

## ELIGIBILITY

All local chapters may enter one (1) entry created by an individual or team of two (2) or three (3) members. No more than one (1) team member may have won first place in this event at a previous State Business Leadership Conference nor competed in this event at a prior conference.

1. Participants must be members of an active local chapter and on record in the FBLA state and national offices as having paid dues by February 15.
2. Participants must be selected in accordance with the regulations of the local chapter and the state association.
3. Participants must not have won first place at a previous State Business Leadership Conference nor entered this event at a previous National Leadership Conference.
4. Participants failing to report on time for the event will not be permitted to compete.
5. Participants failing to submit materials for receipt in the State Office by March 5 will be disqualified.
6. Participants must adhere to the dress code established by the Board of Directors, or they will not be permitted to participate in the competitive event.

## OVERVIEW

This event consists of two (2) parts: a prejudged program and a performance component. Participants are required to complete both parts to be eligible. 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.

## **2012 SBLC TOPIC**

The topic to be developed in this presentation and submitted for competition at the 2012 State Business Leadership Conference 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.**

The presentation will be developed prior to the SBLC and will be used when giving the business presentation. The same topic will be used at the National Leadership Conference.

## **GUIDELINES**

### **Prejudged Program**

1. The participant may choose any programming language or game/animation engine to create a stand alone executable program that will display creativity, programming skill, and convey the message of the topic.
2. Two (2) copies of the program along with a "Statement of Assurance" form must be sent to the state office to be received by March 5 for judging.
3. The program must contain minimally the following:
  - a. Minimum of five missions/tasks/levels to be completed before winning or completing the game.
  - b. Must be graphical in nature, not text based.
  - c. An initial title page with the game title, user interface control instructions, and active buttons for Play and Quit.
  - d. A quit command programmed to the escape key. This is needed if the player wants to end the game before completing.
4. Two (2) DVDs or USB flash drives containing the executable object, data or support files needed to run the executable file, and files showing the programming code (can be text or flowchart files that can be opened using Microsoft Office 2007), must be received by the state office for judging by March 5 along with a Statement of Assurance. Label the media with the school, participant name, state, and event.
5. All data and programs should be contained in a master folder name STATE\_SCHOOL where your state and school are listed in that folder name format. Outside of the master folder, create a shortcut to the executable file. If the program requires a runtime player, create a shortcut outside the master folder to launch the runtime player installer.
6. Program must run on Windows XP or higher computer.
7. Data must be free of viruses/malware. Any entry with contaminated data will not be judged.
8. Program produced for this event must be prepared by the participants without help.

### **Performance**

1. Up to fifteen (15) finalists scoring highest on the prejudged program will proceed to the oral presentation.
2. The participant must provide all equipment for the presentation, including a copy of the program. A screen will be provided.
3. Five (5) minutes will be allowed to set up and remove equipment or presentation items.
4. The individual or team has seven (7) minutes to present the program.
5. A timekeeper will stand at six (6) minutes and again at seven (7) minutes. When the presentation is finished, the timekeeper will announce the time used. Judges will note a deduction of five (5) points for any time over seven (7) minutes.
6. Following each presentation, judges will conduct a three (3) minute question-answer period.
7. Visual aids related to the project may be used; however, no items may be left with the judges or audience.
8. Performances are open to conference attendees except performing participants of this event.

### **JUDGING**

Programs will be reviewed by a panel of judges to determine if chapters have complied with event eligibility and regulations. The judges will then select the winners. A panel of judges will evaluate the oral presentations. Final rank is determined by totaling the written program scores and the oral presentation scores. The program score will be used to break a tie. All decisions of the judges are final.

### **STATE AWARDS**

The number of awards presented at the State Business Leadership Conference is determined by judges and/or number of entries. The maximum number will be five (5).

### **NATIONAL ENTRIES**

Washington State may enter two (2) state winners in national competition.



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## Production Rating Sheet

Evaluation Item	Not Demonstrated	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations	Points Earned
<b>Program Usability and Support</b>					
Storage media, uploaded folder, and shortcuts formatted properly	0	1-3	4-7	8-10	
Instructions clear and executable launches from shortcut without modification	0	1-3	4-7	8-10	
<b>Game Play Evaluation</b>					
Quality of Rules—rules presented well and player knows what to do	0	1-3	4-7	8-10	
User Interface—game controls are easy to use without much explanation	0	1-3	4-7	8-10	
Navigation—the player can get to the end of game and knows how to get there	0	1-3	4-7	8-10	
Performance—no errors, bugs, or glitches	0	1-3	4-7	8-10	
Play—game is challenging, the game can be completed	0	1-3	4-7	8-10	
Artistry—color, backgrounds, characters, sounds are attractive and visible	0	1-3	4-7	8-10	
Player Interactions—player participates in the story and the actions are consistent with the concept	0	1-3	4-7	8-10	
Plot Complexity—game tells the story, player is guided to find a resolution to the problem at the beginning of the game	0	1-3	4-7	8-10	
Rewards—player is rewarded properly for taking game risks	0	1-3	4-7	8-10	
<b>Game Concept &amp; Design Evaluation</b>					
Fully addresses concept and topic	0	1-5	6-10	11-15	
Game play and graphics appropriate for concept and age group	0	1-3	4-7	8-10	
Incorporates entertainment and education elements	0	1-3	4-7	8-10	
Title slide is attractive with working direction, quit, and start buttons	0	1-3	4-7	8-10	
Contains all levels required	0	1-3	4-7	8-10	
Errors did not crash game or prevent continuing game play	0	1-3	4-7	8-10	
Code is well written and logically designed	0	1-5	6-10	11-15	
Code or game engine events are well commented to explain logic used and reason for a block of code	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              _____					
<b>Total Points</b>					<b>/200 max.</b>

Student Name(s):						
School:						
Judge's Signature:				Date:		

Judge's Comments:

VERIFICATION  
(scores checked)  
 Administrator



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## 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. <b>Time:</b>					
<b>Dress Code Penalty</b> Deduct five (5) points when dress code is not followed.					
<b>Penalty</b> Deduct five (5) points for failure to follow guidelines.					
<b>Total Points</b>					
<b>Prejudged Score</b>	<b>/200 max.</b>				
<b>Final Score</b> (add total points and prejudged score)	<b>/300 max.</b>				

Student Name(s):					
School:					
Judge's Signature:		Date:			

Judge's Comments:

VERIFICATION  
(scores checked)  
 Administrator