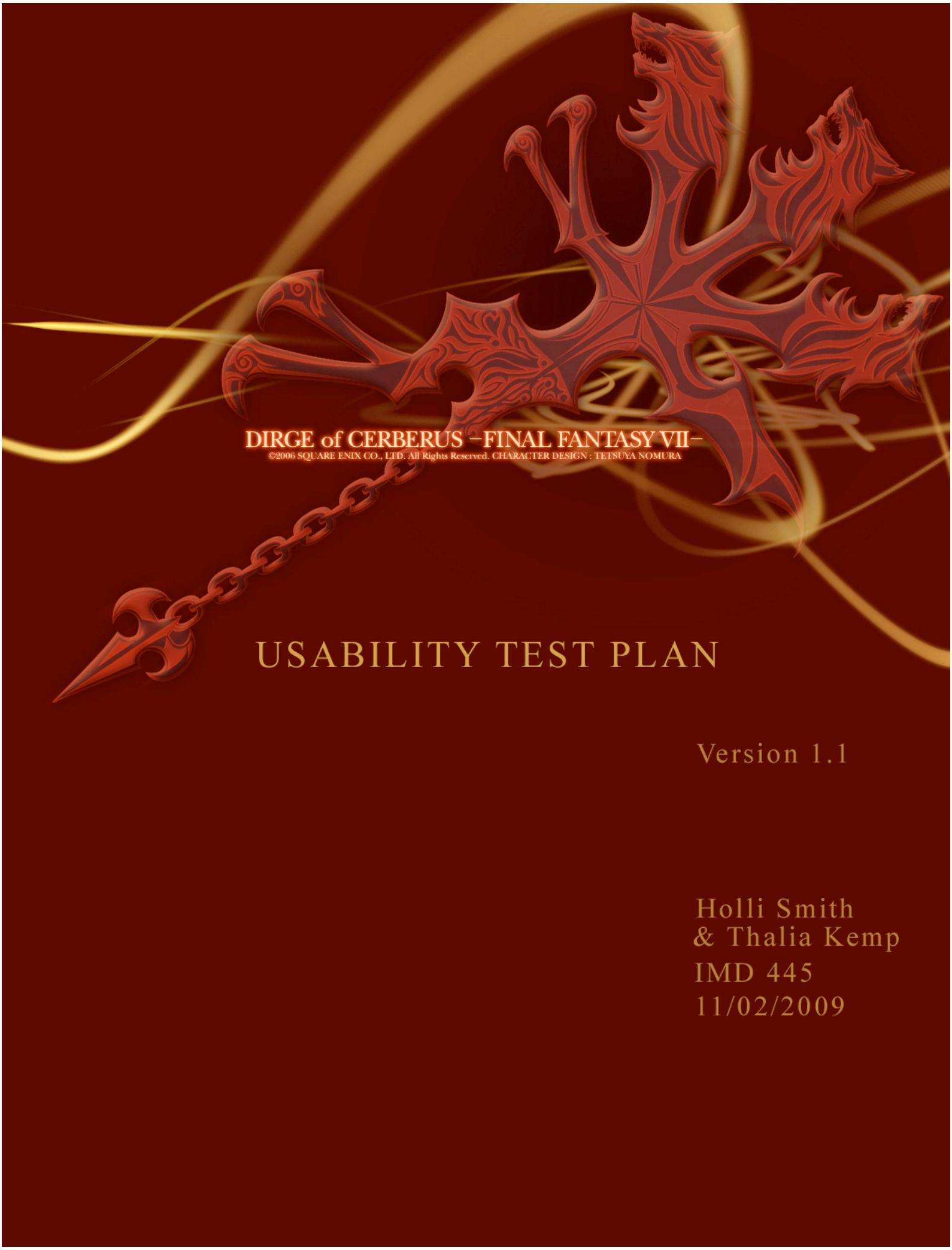

USABILITY TEST PLAN

Version 1.1

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IMD 445

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1.0 Document Overview

This document describes a test plan for conducting a summative usability test of the video game "Dirge of Cerberus". The goals of usability testing include establishing a baseline of user performance, establishing and validating user performance measures, and identifying potential design concerns to be addressed in order to improve the efficiency, productivity, and end-user satisfaction for future game development.

1.1 Introduction

"Dirge of Cerberus" Is a game based on FFVII, it is unique in the sense that is is the first Final Fantasy game that is not a traditional role playing game. "Dirge of Cerberus" is the first, first person shooter game in the final fantasy collection. Because of the uniqueness of this game this usability study is being conducted to assist in future video game development.

1.1 User Goals

User goals explain why the user is using the product and what they are trying to accomplish. It is important to establish user goals at the beginning of a usability test, in order to shape the test.

Dirge of Cerberus is a video game based on Final Fantasy VII designed for the Playstation 2. Users use this game primarily for entertainment purposes. The game should be challenging, aesthetically pleasing and have an interface that is easy to use.

The user goal is broke up into three parts. The user needs to learn how to use the game in order to play the game in the future.

To fully understand how to play the game the user needs to know:

- What the controller buttons do.
- How to use the menu system.
- How to navigate through the level using the mapping system.

1.2 Testing Goals

- Determine problem areas in controller set up, menu system and mapping system. Error sources may include:
  - Menu errors – failure to locate essential game functions, excessive clicks or button presses to complete a function, failure to follow the ideal menu flow.
  - Presentation errors – failure to locate information due to vague terminology.
  - Control usage problems – improper use of buttons on the controller.
- Exercise the game under controlled test conditions with representative users. Data will be used to access whether usability goals regarding an effective, efficient, and well-received user interface have been achieved.
- Establish baseline user performance and user-satisfaction levels of the user interface for future usability evaluations, of similar products.

Source: Usability.gov 1

2.0 Testing Facilities and Time

The testing will take place in person, at the Art Institute of Atlanta's usability testing facilities in early November 2009. We will allot 15 minutes per a user for the test. This should be adequate time to conduct the test, give the facilitator enough time to conduct probing and still leave the user time to fill out all questionnaires. There will be a facilitator and note taker present to monitor the test. To receive suffecient data, 6 – 10 users will be used for this study, so 3 hours will be alloted for the testing. The full testing schedule Is as fallows.

Activity	**Resource Time**
Planning and creating evaluation documents	3
Running the evaluation	1
Analyzing data collected	3
Preperation of report and presentation	4
Peer review of presentation	1
Final presentation	1
Total	**13 days**

3.0 Roles

3.1 Facilitator

- Describes the product and the purposes of the test to the participant.
- Explains to the participant what usability testing is and why usability test are conducted.
- Responds to questions or concerns that the participant may have, when appropriate.
- Conduct the test, guiding the user through each task.
- Administers questionnaires

3.2 Data Logger

- Tracks the completion rate of each test.
- Logs the users Time on Task
- Records the user answers for task questions.
- Notes users comments and physical reactions to the test

3.3 Ethics

All people involved with this usability study must adhere to the ethics guidelines listed below.

- Individuals' names cannot be used outside of the test session.
- The individuals test results cannot be discussed with the individual's employers and/or manager.
- The video's made during the course of the project can only be viewed outside of the testing team if the user opts in to the public video agreement in the video consent form.

4.0 Demographic & Recruitment

This section describes the user demographic, they types of users who will be recruited for the test and how we plan to recruit users

4.1 Demographic

The demographic for "Dirge or Cerberus" is men age 12- 36, they are most likely a fan of the final fantasy series or, fans of the first person shooter genre or, both. They most likely are casual or experienced gamers.

4.2 Recruitment Plan

6 – 10 users will be needed for this usability test. The majority will be students recruited from the Art Institute of Atlanta. Flyers will be posted in the café and other popular areas of the school. Because this is a usability test for a video game, we hope to recruit some entry-level game design students from the school. Friends and family of the team will be allowed to participate as users in order to acquire a wider demographic of test subjects but someone who does not know the user will have to facilitate the test.

4.3 Recruitment Incentives

Incentives are an important aspect of the recruitment process. Even though this test is low budget we have a couple of options for incentives. We can ask local businesses for coupons, this will bring them new business and give users a reason to participate in the test. The second option is to offer food as an incentive; since most of the testers are student's pizza and/or candy can be incentive enough to participate in the test.

4.4 Recruitment Screener

The recruitment screener gives us information on the users selected for the study. Not only does it help us pick users based on the correct demographic, it gives us insight into their technical skills, this gives us the ability to make coorelation between their level of expertise and their ability to use the system. We have chosen to use an online survey for our screener rather than a paper based survey. Screeners will be sent to users before the test, or they will be filled out immediately before the test in the usability lab. Users who have played Dirge of Cerberus before are not be allowed to participate in the study. The Screener is available for viewing here: http://www.surveygizmo.com/s/198014/video-game-survey .

AI Atlanta, has an upcoming study regarding video games that you may be interested in attending. We will respond to survey respondents on a first come, first serve basis until the study is fully booked.

Study Date:

Compensation:

If you would like to participate, fill out the survey.

Thank you for any assistance you can give us!

Questions marked with an asterisk (*) are mandatory.

1. Please provide your contact information. *

Name
Email
Phone

2. Have you participated in a individual or group research discussion about video games? *

- Never
- More than 6 months ago
- Less than 6 months ago

3. Are you employed in any of the following: *

- Marketing or Market Research
- Ad Agency
- Internet Industry
- Software Development
- None of the above

4. What is your gender? *

- Male
- Female

5. Which of the following includes your age? *

- 14-18 years
- 19-24 years
- 25-36 years

6. How would you rate your video game skill level? *

Novice ○ ○ ○ ○ ○ ○ ○ ○ ○ Expert

7. Which game consoles have you played before? *

- Computer
- GameCube
- PlayStation 2
- PlayStation 3
- Wii
- Xbox
- Xbox 360

8. What kind of game genre(s) do you like to play? *

- Role Playing Games
- First Person Shooter
- Real Time Strategy Games
- Puzzle Games
- Platformer Games
- I don't know

9. Which of the following games have you played? *

- DOOM
- Final Fantasy
- Gears of War
- Halo
- Legend of Zelda
- Super Mario Bros.
- Super Metroid
- None of the above

5.0 Testing Scenarios

Testing scenarios give users an idea of what their motivation is in using the product. Giving users context in how they are using the system makes them use the game in a way that they would in the real world. We have chosen to use two different scenarios for this test, one for users who have played the Final Fantasy games and one for users who are unfamiliar with the sub-genre.

5.1 Experienced Users

For the purpose of the user scenarios, experienced users are defined as users who have played any Final Fantasy game before. This is important because even though Dirge of Cerberus is a Final Fantasy game it is not played the same way most Final Fantasy games are played. This will give us insight into the perspective of the fans of the sub – genre.

" You are a fan of the game Final Fantasy VII. You find out a new game is being released that fills in the story of the mysterious character Vincent Valentine. So you go to your favorite video game store and pre - order a copy of the game. It arrives one week later and you have just picked up your copy, and are about to start playing. Before you play though you would like to learn how to use the game. You don't feel like going through the tutorial process so you are just experimenting on your own."

5.1 Inexperienced Users

For the purpose of the user scenarios, inexperienced users are defined as users who have never played any Final Fantasy games. Even if they have played a playstation 2 video game before, if they have never played a Final Fantasy game they will be given this scenario.

"Your friend tells you about a game called Dirge of Cerberus. You think it sounds like it would be fun to play so you ask them if you can barrow it. You finally have some free time to sit down and play the game. You want to figure out how to use it before you start playing, but your not one to use instructions and you aren't patient enough to use tutorials. Since your friend gave you his memory card you use one of his save files to experiment and figure out how everything works, before playing."

6.0 Methodology

6-10 participants will be used for the purpose of this usability study. Users will be selected randomly from different user groups. The test will be taken on a playstation 2 with a third party controller. Two memory cards will be used for the test, because of the save system used by "Dirge of Cerberus" the original game file must be copied to the memory card the participant uses to play prior to every test. The test will take place in the Art Institute of Atlanta's usability lab and is expected to last for 3 – 4 hours over the span of one day.

6.1 Procedure

Participants will take part in the usability test at The Art Institute of Atlanta in Atlanta, GA. A playstation 2 with the game and associated accessories will be used in a typical office environment. The facilitator seated in the same office will monitor the participant's interaction with the game. A note taker/data logger will monitor the sessions in observation room, through a one-way mirror and connected by video camera feed. The test sessions will be videotaped.

The facilitator will brief the participants on the game instruct the participant that they are evaluating the application, rather than the facilitator evaluating the participant. Participants will sign an video consent that acknowledges: the participation is voluntary, that participation can cease at any time, and that the session will be videotaped but their privacy of identification will be safeguarded. The participant will be given the option to opt-in if they choose to have their video used in student portfolios. The facilitator will ask the participant if they have any questions.

Participants will complete a screening survey and a pre-test questionnaire. The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behavior outside the task flow should not occur until after task completion. Before each task begins the user will be given a pre-task questionnaire that will ask them to give their expectations for that particular task. At the start of each task, the participant will read aloud the task description, and task questions from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task.

The facilitator will instruct the participant to 'think aloud' so that a verbal record exists of their interaction with the game. The facilitator will observe and enter user behavior, user comments, and system actions on the task observation forms. Once the task is completed the user needs to be instructed not to press buttons or do anything until the facilitator gives them further instructions.

After each task, the participant will complete the post-task questionnaire and elaborate on the task session with the facilitator. After all task scenarios are attempted, if enough time is left the participant will be given the opportunity to explore the game on their own. Once the user has had a game over or time allotted for the test has expired the user will complete the post-test satisfaction questionnaire.

Source: Usability.gov 1

7.0 Usability Tasks

The usability task are based on the testing scenarios. Participants will only be available for a short time, so the task that are chosen test the most important functionality of game, and are limited to testing only the menu system, mapping system and controller functionality. Each participant will be given the same task to complete in the same order.

Because this is a summative development is 100 % complete and users will be given a working, final version of the game. The time on task might be impacted slightly by the time it takes for user to answer questions that are given to them, to make sure they are completing the task.

The task description need to be reviewed by the project sponsor, to ensure that the content, presentation, and format represent realistic use and evaluate the most important aspects of the game. Acceptance must be documented prior to the usability test.

7.1 Task One – Configuration Menu

Task one is designed to test the users ability to find the contoller settings. This is an important aspect of th game's menu system because it is not only the place the user can look at to discover what button functions are, it is also the menu where the user is able to customize the controllers function. The user will be asekd three different questions for this test. One about the system settings and two about button settings that will be refrenced later on in the test, to measure the contoller's learnability.

7.2 Task Two – Heads Up Display

The heads up display gives the user vital information while playing the game, The information on the heads up display is available at all times. It is important for the user to understand the information on the heads up display so that they know when to retreat and use items, and when to reload their weapons. This task is designed to test the users understanding of iconography and terminology on the heads up display. The user will be asked to answer two questions during the test one about the players health and one about the amount of ammunition in the gun. This test also gives us a good understanding of intuitive the back/exit button is because the user must exit out of the menu screen during this test.

7.3 Task Three – Customization menu

The customization menu is used to customize and equip weapons. This task is designed to test the users abiilty to recognize which guns are available, which one is equiped and how to customize the weapon. This task also test the learnability of the controller and the menu system. The user must open the menu and navigate to the customization menu to accomplish this task. The user is asked to answer three questions to complete this task, each one test a different aspect of the menu. One determines if the user can tell which weapon is equiped, one determines if the user can navigate to other weapons and the third is not a question but instructions to customize a weapon.

7.4 Task Four – Inventory Menu

The inventory menu is essential to the game. The user can access items in this menu and use them to renue health, magic points and give them special, temporary abilities. This task is designed to test the navigation system. The user will be given one question and two sets of instructions to complete the task. The question determines if the user can tell which items are in inventory, the instructions test the easness of using an item and the intuitiveness of the back/exit button.

7.5 Task Five – Map

The map function is used to give the user a layout of the current level and helps point them in the direction they need to go to progress in the game. In this task the user is asked to open the map and navigate to the area they believe they need to go to next in order to proceed in the game.

7.6 Task Six – Default Controller Configuration

Controller configurations are a vital part of creating an enjoyable game playing experience. It is important that controllers are intuitivly configured by default, because if users have to change the controller settings they may find it more difficult to use the games functions. This task it designed to test the intuitiveness of the controller. The user is given five actions to perform, each action has to be performed in less than four button pushes to be graded as complete. More experienced users will have an advantage in this task because most playstation 2 games have a similar controller configuration.

8 Usability Metrics

Usability metrics refers to user performance measured against specific performance goals necessary to satisfy usability requirements. Task completion success rates, error rates, Time on task, user expectations and subjective evaluations will be used.

8.1 Task Completion

Each task either has questions that the user must answer correctly to complete the task and/or instructions with pre-defined end points that the user must follow to complete the task. Users are told to say, "done" when they feel they have completed the task, at this time the task will be considered complete, incomplete or complete with the use of instructions. If the user cannot complete the task with use of the instructions this task will be graded as a critical error.

Task Completion Scale:

- 0 - Incomplete
- 0.5 – Complete with the use of instructions
- 1 – Complete without the use of instructions or guidance.

8.2 Critical Errors

There are two different forms of critical errors. Errors that cause the user to answer the questions incorrectly, in this case users may not even be aware that the have not completed the task. The second form of a critical error, is an error made that makes it impossible to complete the task.

8.3 Non-Critical Errors

Non-critical errors can be recovered from, the user may not realize they are errors but they may cause the user to become impatient and/or frustrated with the game. The error can be procedural meaning the user does not use the optimal way of completing the task, this form of error will most likely show in the time on task. Non – critical errors do not make it impossible to complete the scenario. Exploratory behavior such as opening a wrong menu screen will only count as non-critical errors if it happens consecutively twice during the testing session.

8.4 Time on Task

The time on task begins after the user reads the instructions and all the questions out loud. Once the user says, "done" the time will be stopped. Time on task will help measure the intuitive of the interface with users of different skill levels.

8.5 User Expectations

Participants will be given a survey to fill out before and after each task. The pre-task survey will ask the user how easy or difficult the task will be. Once they have completed the task the participant will be asked to fill out a survey that gives information on how easy/difficult the task actually was to complete. The questionnaires will utilize ratings and free-form responses.

8.6 Subjective Evaluations

Subjective evaluations will take place at the end of each task. The user will be asked about the issues they had with the game, and the ease of use in a debriefing session.

Source: Usability.gov 1

9 Usability Goals

This section describes the usability goals for "Dirge of Cerberus".

9.1 Completion rate

Completion rate is defined as the number test participants who successfully complete the task without, critical errors, giving incorrect feedback or incomplete outcomes. If a user ask for assistance to complete the task, and can complete it with the instructions included with the game than en the task will be scored as partially complete.

A completion rate of 100% is the goal for each task in the usability test.

9.2 Error Free Rate

The percentage of users who complete the task without any critical or non-critical errors is the error-free rate.

A completion rate of 75% is the goal for each task in the usability test.

9.3 Time on Task

The time on task is the time it takes for the user to complete the task. The time is measured from the start of the task till the users signals that they have completed the task. Each task has a different time goal, these goals are based on expert times and the pilot test.

- **Task 1: 2 minutes**
- **Task 2: 30 seconds**
- **Task 3: 30 seconds**
- **Task 4: 1 minute**
- **Task 5: 4 minutes**
- **Task 6: 6 minutes and 30 seconds**

9.4 User Expectations

User expectations are measured by how easy/difficult the user thought the task would be compared to how easy/difficult the task actually was.

The goal for user expectations are that the user's expectations are met at least 60% of the time, exceeded at least 35% of the time.

9.5 Subjective Measures

At the end of each task and the end of the test users will be asked to give their opinions about the task and the game overall. At the end the users will be given a questionnaire and will be asked to rate their overall satisfaction with the game. These data will be compared with their interview and debriefing to assess their attitude and technical level.

10 Problem Severity

In order to prioritize the recommendations made in the report the, problems will be classified by their severity based on the data collected during the usability study. Problems severity will be measured based on the number of participants who experience the problem and the impact of the problem.

10.1 Impact

The impact of the problem can be defined in three levels

- **High Impact –** A critical error that prevents the user from completing the task or an error that makes them believe the task is completed when it is not.
- **Moderate Impact –** A non-critical error that causes the user frustration but the task is still completed.
- **Low Impact –** A non-critical error that does not significantly affect the task completion but is noted by the user during the test.

10.2 Frequency

Frequency is the number of participants who experience a particular problem during the test.

- **High** - 51% or more of the users experience the problem
- **Moderate** - 17% - 50% of the users experience the problem
- **Low** - 16% or fewer participants experience the problem

Source: Usability.gov 1

11 Reporting Results

After the usability test is conducted the results will be compiled into a report and a presentation. It will evaluate metrics against the pre-approved usability goals, subjective evaluation, user expectations and specific usability problems. Recommendations will be made in the form of narratives, and with the use of visual aids, such as wireframes and/or visual design compositions.

12 Observation Forms and Questionnaires

Below are all of the resources needed to conduct the test including, consent forms, observation forms and questionnaires.

User #	

Participant Screener

AI Atlanta, has an upcoming study regarding video games that you may be interested in attending. We will respond to survey respondents on a first come, first serve basis until the study is fully booked.

Study Date:

Compensation:

If you would like to participate, fill out the survey.

Thank you for any assistance you can give us!

Questions marked with an asterisk (*) are mandatory.

1. Please provide your contact information. *

Name

Email

Phone

2. Have you participated in a individual or group research discussion about video games? *

☐ Never

☐ More than 6 months ago

☐ Less than 6 months ago

User #	

Participant Screener

3. Are you employed in any of the following: *

☐ Marketing or Market Research

☐ Ad Agency

☐ Internet Industry

☐ Software Development

☐ None of the above

4. What is your gender? *

☐ Male

☐ Female

5. Which of the following includes your age? *

☐ 14-18 years

☐ 19-24 years

☐ 25-36 years

6. How would you rate your video game skill level? *

Novice ☐ ☐ ☐ ☐ ☐ ☐ ☐ Expert

User #	

Participant Screener

7. Which game consoles have you played before? *

☐ Computer

☐ GameCube

☐ PlayStation 2

☐ PlayStation 3

☐ Wii

☐ Xbox

☐ Xbox 360

8. What kind of game genre(s) do you like to play? *

☐ Role Playing Games

☐ First Person Shooter

☐ Real Time Strategy Games

☐ Puzzle Games

☐ Platformer Games

☐ I don't know

User #	

Participant Screener

9. Which of the following games have you played? *

☐ DOOM

☐ Final Fantasy

☐ Gears of War

☐ Halo

☐ Legend of Zelda

☐ Super Mario Bros.

☐ Super Metroid

☐ None of the above

User #	

Video Consent From

I agree to participate in the study conducted and videotaped by the Art Institute of Atlanta.

Choose and Initial, one of the following options:

_____I understand and consent to the use and release of the videotape by the Art Institute of Atlanta. I understand that the information and videotape is for research purposes only and that my name and image will not be used for any other purpose. I relinquish any rights to the videotape and understand the videotape may be copied and used by the Art Institute of Atlanta without further permission.

_____I understand and consent to the use and release of the videotape by the Art Institute of Atlanta. I understand that the information and videotape is for research purposes and **also give permission for my name and image to be used for student portfolio purposes**. I relinquish any rights to the videotape and understand the videotape may be copied and used by the Art Institute of Atlanta without further permission.

I understand that I can leave at any time.

I agree to immediately raise any concerns or areas of discomfort with the study administrator.

Your signature:_____

Date:_____

Please print your name: _____

Thank you!

We appreciate your participation.

Source: Usability.gov 2

User #	

Pre-Test Survey:

On a scale from 1 – 5 (5 being the highest level of confidence), please rate the following questions:

1. How confident are you that you will not need to use a manual to play a video game?_____

2. How confident are you that the interface will provide information to get started to play? _____

3. How confident are you that the menu options will be intuitive? _____

4. How confident are you that your actions will result in feedback? _____

5. How confident are you that the user interface will be consistent (in control, color, typography, and dialog design)? _____

6. How confident are you that the interface will be non-intrusive? _____

7. How confident are you that the menu layers will be organized? _____

8. How confident are you that the sounds from the game will provide meaningful feedback or invoke a particular emotion? _____

9. How confident are you the art will be recognizable and speak to its function? _____

User #	

Task 1: Observation form

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Find the answer for each of the questions below. Say the answer aloud when you find it. Say, "done" when you are finished.

The purpose of Task 1 is to test the users ability to explore the controller configuration, find out what buttons perform certain functions and retain that information.

ANSWER SHEET

1) What is the vibration setting set to?

Answer : on	User Answer:

2) Imagine you are going to update the controller settings. Go to the menu you would use to do this. What is the first button on the list? What does it do?

Answer: The Triangle Button ; it opens the menu	User Answer:

3) Imagine you are going to update the controller settings. Go to the menu you would use to do this. What is the last button on the list? What does it do?

Answer: **(a)** The up button ; it opens the map	User Answer:

Time on Task	
Task Issues	
# of Task Errors	

User #	

Task 1: Pre-Task Survey

On a scale of 1-5 (5 being most confident) rate the following:

1. What is your expectation to complete the overall task?

User #	

Task 1: Post-Task Survey

Answer the questions below honestly:

1. Did your outcome meet or exceed your expectation?

a. Did not meet expectation

b. Meets expectation

c. Exceeds expectation

Explain:

Task 1: User Sheet

Find the answer for each of the questions below. Say the answer aloud when you find it. Say, "done" when you are finished.

1) What is the vibration setting set to?

2) Imagine you are going to update the controller settings. Go to the menu you would use to do this. What is the first button on the list? What does it do?

3) Imagine you are going to update the controller settings. Go to the menu you would use to do this. What is the last button on the list? What does it do?

User #	

Task 2: Observation form

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Exit the menu completely. On the main screen find the answer for each of the questions below. Say the answer aloud when you find it. Say, "done" when you are finished.

The purpose of Task 2 is the test how intuitive the back button or exit button is. It is also designed to test how well iconography and terminology is used on the heads up display, and if the user understands what it means.

ANSWER SHEET

1) What is the characters current HP or health at? What is the maximum HP?

Answer: 1225 / 1340	User Answer:

2) How much ammunition does the equipped gun have? What is the maximum amount of ammunition the gun can hold?

Answer: 40 / 40	User Answer:

Time on Task	
Task Issues	
# of Task Errors	

User #	

Task 2: Pre-Task Survey

On a scale of 1-5 (5 being most confident) rate the following:

1. What is your expectation to complete the overall task?

User #	

Task 2: Post-Task Survey

Answer the questions below honestly:

1. Did your outcome meet or exceed your expectation?

a. Did not meet expectation

b. Meets expectation

c. Exceeds expectation

Explain:

Task 2: User Sheet

Exit the menu completely. On the main screen find the answer for each of the questions below. Say the answer aloud when you find it. Say, "done" when you are finished.

ANSWER SHEET

1) What is the characters current HP or health at? What is the maximum HP?

2) How much ammunition does the equipped gun have? What is the maximum amount of ammunition the gun can hold?

Task 3: Observation form

User #	

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Find the answer for each of the questions below, say the answer aloud when you find it and follow the directions below. Say, "done" when you are finished.

The Purpose of Task 3 is to test the users ability to navigate through the gun customization menu and customize a weapon. It also tests the controller's learnability because the user must open the menu to find the information they are looking for. The user should not be told to open the menu screen in order for us to test how evident it is where you would go to accomplish this task.

ANSWER SHEET

What type of gun is weapon 1?

Answer : Griffon II	User Answer:

What other gun(s) are available?

Answer : weapon 2 / Griffon II Answer : weapon 3/ Cerberus	User Answer:

Equip the long barrel onto the Griffon II.

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Time on Task	
Task Issues	
# of Task Errors	

User #	

Task 3: Pre-Task Survey

On a scale of 1-5 (5 being most confident) rate the following:

1. What is your expectation to complete the overall task?

User #	

Task 3: Post-Task Survey

Answer the questions below honestly:

1. Did your outcome meet or exceed your expectation?

a. Did not meet expectation

b. Meets expectation

c. Exceeds expectation

Explain:

Task 3: User Sheet

Find the answer for each of the questions below, say the answer aloud when you find it and follow the directions below. Say, "done" when you are finished.

1) What type of gun is weapon 1?

2) What other gun(s) are available?

3) *Equip the long barrel onto the Griffon II.*

Task 4: Observation form

User #	

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Find the answer for each of the questions below, say the answer aloud when you find it and follow the directions below. Say, "done" when you are finished.

The Purpose of Task 4 is to find out how easy it is to find the menu that contains the users items. If using an item is intuitive and how intuitive it is to exit a menu or "go back".

ANSWER SHEET

1) How many potions are in your inventory?

Answer: 3	User Answer:

2) Use a red ether

Complete when there is one less red ether in inventory

1 - completed no help 0.5 – completed with instructions 0 - incomplete

3) Exit The Menu Screen completely.

The user must exit both the inventory menu and the menu screen.

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Task 4: Observation form Cont..

User #	

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Time on Task	
Task Issues	
# of Task Errors	

User #	

Task 4: Pre-Task Survey

On a scale of 1-5 (5 being most confident) rate the following:

1. What is your expectation to complete the overall task?

User #	

Task 4: Post-Task Survey

Answer the questions below honestly:

1. Did your outcome meet or exceed your expectation?

a. Did not meet expectation

b. Meets expectation

c. Exceeds expectation

Explain:

Task 4: User Sheet

Find the answer for each of the questions below, say the answer aloud when you find it and follow the directions below. Say, "done" when you are finished.

1) How many potions are in your inventory?

2) Use a red ether

3) Exit The Menu Screen completely.

User #	

Task 5: Observation form

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Open the map. Point on the map to where you think you need to go in order to complete the level. Move to this point and say, "done" when you get there.

The Purpose of Task 5 is to test the mapping system. Is it easy for users to figure out where they are supposed to go? Do they understand what the different map icons mean? Do they recognize they have the ability to leave the map open when navigation around the level. Ultimately do users know where they are supposed to go and does the map help them get there efficiently.

ANSWER SHEET

1	0.5	0

If the user points to the blue spot on the map and gets to the point where they can see the blue electric fence they completed the task correctly. **Score as 1.**

If the user points to any other spot on the map and gets to that point they completed the task incorrectly. **Score as .5**

If the user does not get to the place they pointed to on the screen they did not complete the task. **Score as 0.**

Time on Task	
Task Issues	
# of Task Errors	

User #	

Task 5: Pre-Task Survey

On a scale of 1-5 (5 being most confident) rate the following:

1. What is your expectation to complete the overall task?

User #	

Task 5: Post-Task Survey

Answer the questions below honestly:

1. Did your outcome meet or exceed your expectation?

a. Did not meet expectation

b. Meets expectation

c. Exceeds expectation

Explain:

Task 5: User Sheet

Open the map. Point on the map to where you think you should go next. Move to this point and say, "done" when you get there.

User #	

Task 6: Observation form

1 - completed no help 0.5 – completed with instructions 0 - incomplete

Below is a list of actions. Perform each one using the buttons on the controller. Read the action aloud, and then perform it. Say, "done" after you perform each action. Wait for the moderator to tell you to proceed with the next action.

The purpose of Task 6 is to find out how intuitive the controller set up is. Do the buttons perform the actions that users expect them to? Are they intuitive to use?

ANSWER SHEET

These will be scored based on how many buttons they push before finding the correct button. Please note these numbers below.

If the user completes each action using less than 4 buttons each rate this task a 1 for completed. If it takes the user more than 4 buttons on any action below rated this task as 0 for incomplete.

1) Jump

Time on Task	
# of buttons pressed	
Task Issues	
Task Completed	1 - completed no help 0.5 – completed with instructions 0 - incomplete

Task 6: Observation form cont…

User #	

1 - completed no help 0.5 – completed with instructions 0 - incomplete

2) Crouch

Time on Task	
# of buttons pressed	
Task Issues	
Task Completed	1 - completed no help 0.5 – completed with instructions 0 - incomplete

3) Shoot: R1 button

Time on Task	
# of buttons pressed	
Task Issues	
Task Completed	1 - completed no help 0.5 – completed with instructions 0 - incomplete

Task 6: Observation form cont…

User #	

1 - completed no help 0.5 – completed with instructions 0 - incomplete

4) Reload The Gun : R2 Button

Time on Task	
# of buttons pressed	
Task Issues	
Task Completed	1 - completed no help 0.5 – completed with instructions 0 - incomplete

5) Perform a Melee Attack

Time on Task	
# of buttons pressed	
Task Issues	
Task Completed	1 - completed no help 0.5 – completed with instructions 0 - incomplete

Task 6: User Sheet

Below is a list of actions. Perform each one using the buttons on the controller. Read the action aloud, and then perform it. Say, "done" after you perform each action. Wait for the moderator to tell you to proceed with the next action.

1) Jump

2) Crouch

3) Shoot

4) Reload The Gun

5) Perform a Melee attack (a physical attack)

User #	

Task 6: Pre-Task Survey

On a scale of 1-5 (5 being most confident) rate the following:

1. What is your expectation to complete the overall task?

User #	

Task 6: Post-Task Survey

Answer the questions below honestly:

1. Did your outcome meet or exceed your expectation?

a. Did not meet expectation

b. Meets expectation

c. Exceeds expectation

Explain:

User #	

Post-Test Survey

On a scale from 1 – 5 (5 being the highest), please rate the following questions:

2. Upon initially viewing the interface how satisfied were you with the information to get started to play?

3. How satisfied were you with the intuitiveness of the menu options?

4. How satisfied were you with the menu as a part of the game?

5. How satisfied were you with the feedback for your actions?

6. How satisfied were you with the consistency of the user interface (in control, color, Typography, and dialog design)?

7. How satisfied were you that the interface was non-intrusive?

8. How satisfied were you with the organization of the menu layers?

9. How satisfied were you with context sensitive help?

10. How satisfied were you with the sounds from the game to provide meaningful feedback or arouse a particular emotion?

11. How satisfied were you that the art was recognizable and speaks to its function?

User #	

System Usability Scale

	Strongly disagree				Strongly agree
1. I think that I would like to use this video game frequently	1	2	3	4	5
2. I found the video game unnecessarily complex	1	2	3	4	5
3. I thought the video game was easy to use	1	2	3	4	5
4. I think that I would need the support of a technical person to be able to use this video game	1	2	3	4	5
5. I found the various functions in this video game were well integrated	1	2	3	4	5
6. I thought there was too much inconsistency in this video game	1	2	3	4	5
7. I would imagine that most people would learn to use this video game very quickly	1	2	3	4	5
8. I found the video game very difficult to use	1	2	3	4	5
9. I felt very confident using the video game	1	2	3	4	5
10. I needed to learn a lot of things before I could get going with this video game	1	2	3	4	5

12 Facilitator Guide

12. 1 Welcome and Purpose

Thank you for agreeing to participate in this video game evaluation. Today we are asking you to serve as an evaluator of this video game and to complete a set of tasks. Our goal is to see how easy or difficult you find the interface to use. We will record your reactions and opinions; so, we may ask you to clarify statements that you make from time to time.

12.2 Test Facilitator's Role

I'm here to record your reactions and comments of the video game site you'll view. In a conference room nearby we have a few people who also will observe your interaction with the site. During this session I will not be able to offer any suggestions or hints. There may be times, however, when I'll ask you to explain why you said or did something.

12.3 Test Participant's Role

I will ask you to search for information in this video game in order to help you learn how to use it. We'll do this by giving you scenarios or tasks to complete in the game. You also will be asked a series of questions about your experience at the end of this session.

12.4 Things to Keep in Mind

Here are some things that you should know about your participation:

- This is not a test of you; you're testing the video game. So don't worry about making mistakes.
- There is no right or wrong answer. We really just want to know if we designed the interface well for you.
- If you ever feel that you are lost or cannot complete a scenario with the information that you have been given, please let me know. I'll ask you what you might do in a real-world setting and then either put you on the right track or move you on to the next scenario.
- We will be video recording this session for further study if needed. The data and findings from this evaluation will be used according to your concurrence on the video release form.
- As you use the video game, please do so as you would at home. I do ask that when looking for information, you do so as quickly and as accurately as you can.
- Finally, be sure to think out loud as you are using the game.

Do you have any questions before we begin?

Source: Usability.gov 1

13 Pilot Test

The Pilot test subject (participant # 0) was a male age 20. He has experience with all video game system on the screener except for the playstation 3. When asked to rate his game skill level he picked 5 on a 9-point scale from novice to expert. He is a fan of the Final Fantasy games and has never played "Dirge of Cerberus". The pilot test gave important data and helped identify errors in instruction terminology and the testing procedure. It was discovered in the pilot test that once a saved game is loaded it is deleted, so to have a consistent test a second memory card had to be purchased so the original game can be copied on to the memory card the participant is using to play. The pilot test also gave insight into some instructions that were not entirely clear, particularly task 5, the instructions stated that the user "go to the place on the map where they felt the needed to go next" the user followed the instructions but that led the user to the next room. The instructions were changed to "go to the place on the map you would need to go to complete the level". The Pilot test also gave a better indication of what the usability goals should be particularly the time on task. Because an expert can go through the game much faster than a moderately experienced user participant 0 became a good average example of how much time it should take to complete tasks.

Based on the Pilot Test observation and feedback it was discovered that, the heads up display (HUD), a very important interface on the game was not being tested. Task No.2 was modified in the test plan to measure the intuitiveness, effectiveness and learnability of this aspect of the interface.

When the user filled out the pre-task surveys they felt that the survey gave them negative connotation and negative expectations for the game. The wording of the survey was changed in order to make the instructions and questions more neutral.

The pilot test was essential to ensuing that the usability test plan's instructions were easy to understand by participants, the usability test fully tested all the functionality of the game and that the test overall runs smoothly.

ACCESSIBILITY AUDIT

Version 1.0

Holli Smith
IMD 445
10/07/2009

Accessibility in Video Games

Accessibility in video games is often not prioritized but is becoming more and more important in the game industry for several reasons. The first reason being that the game market is mostly limited to men age 18-35, many video game publishers have been trying to find ways to get interest outside of this market by marketing to young girls or by creating games that grandma and grandpa might like to play with their grandkids. 62% of computer users have a mild or severe disability or impairment many of these users want to play video games desperately and can't because they are not designed to have basic accessibility features, this market of disabled gamers will only grow as the video gaming generation ages. Accessibility in video games will not allow for publishers to expand their market to disabled gamers but will also benefit current gamers who perhaps are affected temporarily by disabilities or their environment, for example playing a video game while in a loud room. This report examines Dirge of Cerberus and gives recommendations on how to improve the game play for disabled gamers.

Low Vision and Vision Impairment

While it is difficult to create a game that a completely blind person can play, it is possible to improve the playing experience for players who have low vision or who are visually impaired. It is important that video games give a significant amount of audio feedback to make games usable by blind, low vision and illiterate users or users with cognitive disabilities.

Subtitles and Menu Text

Users need to have the ability to resize the menu text, captions and subtitles. This is important not only to people with severe blindness but also to people with minor vision issues, because console gamers typically are sitting 10 feet away from the screen instead of 2 feet away like PC gamers.

The color of the menu display and the subtitles should be customizable so that users with colorblindness or users with televisions that have low color contrast can adjust the color of the subtitles, menus and heads up display to suit their needs.

Low Vision and Vision Impairment Continued

Voiceovers

While voiceovers are not an issue for in game subtitles and video sequences, it would be beneficial to have optional voiceovers for menu items. Also at the beginning of each quest an objective is given in text on the screen, it would enhance the user experience for low-vision players if voiceovers were available for important things like objectives, and the users status at the end of each level. The user should have the option to change the speed, pitch, volume and gender of the voice over for non-conversational voiceovers, so that the voiceovers can be heard over in game sounds such as, music, sound effects and roll over effects.

Images of Text enlarged in the menus

Even in this document you can see that enlarged text is easier for anyone to read, and the empty space below the menu gives room for people who want the option to enlarge the text to enlarge it significantly.

Before

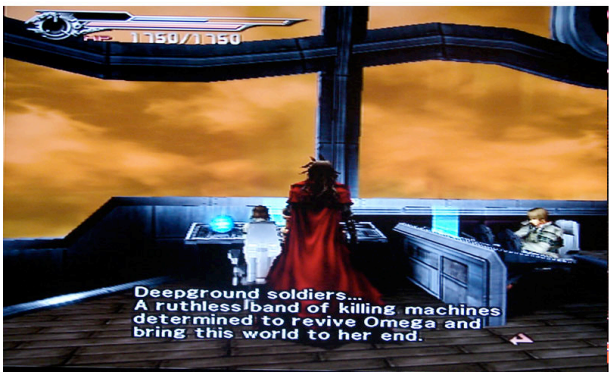
After

Low Vision and Vision Impairment Continued

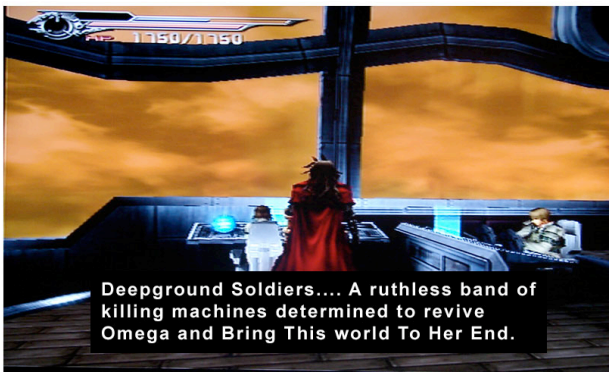
High contrast and enlarged text in subtitles/captioning.

While high contrast captioning does interfere with the aesthetics of the game slightly it improved the experience greatly for users with vision impairments, and the larger and more spaced out text will also be easy to read for users with low vision. This could be an option in the game instead of a default setting.

Before



After



Hearing Impairment

Even though hearing impairments are typically associated with age there is a good percentage of the population that is hearing impaired. According to the National Institute of Deafness and Other Communication Disorders, 2 to 3 out of every 1,000 children are born deaf or hard-of-hearing, and about 15% of Americans between the age of 20 to 69 have high frequency hearing loss due to exposure to loud sounds at work or In leisure activities. So it is important to consider this when developing games.

The Dirge of Cerberus developers have already taken some great steps in making this game playable for deaf users. DeafGamers.com gave Dirge of Cerberus a "C" Rating . The explanation for this rating is shown below.

Some games aren't perfect in their provision for deaf gamers but they still allow deaf gamers to play the game without any real difficulty. Games that aren't fully subtitled (the cutscenes might not be subtitled for example but the rest of the game would provide subtitles) but don't cause any problems, except for the fact that the deaf gamer might miss out on the games story, are probably going to earn a C grade. Sports games that don't have their commentary subtitled are another example of a game that can have omissions and yet still cause no real problems for deaf gamers and as such would earn a C.

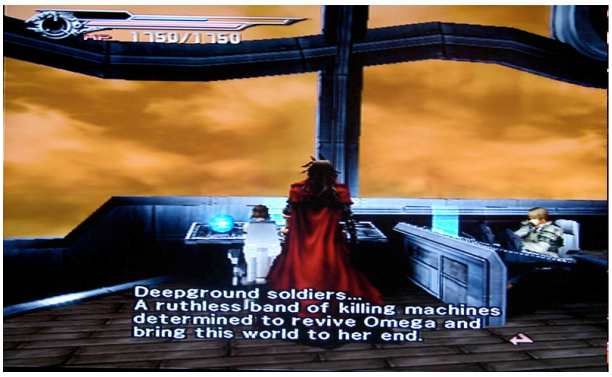
In Game Captioning/Subtitles

Important conversations during game play are subtitles but there could be improvement. In-game conversations do not have profiles associated with them so it is not easy for a deaf user to tell who is speaking this can be easily remedied by adding the name of the person who is speaking before the subtitle. Also only conversations are subtitles the game could benefit from full captioning. A user that can hear can tell when an enemy is in the room because they can hear them walking or they might hear them yell commands but there is no captioning for these specific sounds. The solution for this is to implement full captioning as an option in the settings menu.

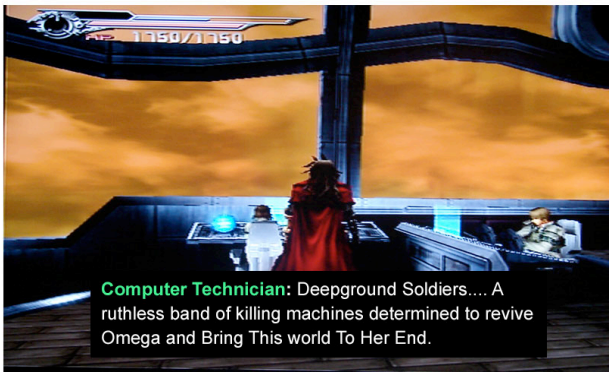
Hearing Impairment Continued

Example of in game conversation with a profile assigned to the text.

Before



After



Example of an action scene with full captioning

Before

After

Cut scene Subtitling

While cut scenes do not have subtitles turned on by default it is an option in the settings, it even allows profiles so you can tell who is saying what. The problem is that these settings are not turned on by default and they are not covered in manual so it isn't evident that you even have the option to turn subtitles on during the cut scenes. Another problem is that you have to actually be in game play before you can change the settings and there is a 10-minute cut scene at the very beginning of the game, so deaf users will miss that conversations in this first cut scene before they are able to turn on captioning. Captioning also isn't consistent, for example in the very first cut scene of the game if you have the subtitles turned on a phone rings and there is not indication that it is ringing, also there is a reporter on the TV talking but there are no subtitles for what she is saying.

Hearing Impairment Continued

Subtitles should be turned on by default, this will help deaf users who are playing the game but it will also help users who have the volume turned down. Then they have the option to turn the subtitles off if the choose to do so. There should also be a game settings button on the main screen so that users can change these settings before they begin playing the game. And subtitling needs to be consistent, this includes subtitling sound effects that are important to the context of the story.

Game Start menu with Game Setting options available

Before

After

This is an example of how sound effects should be presented during cut scenes

Before

After

Hearing Impairment Continued

This reporter on the television is not originally subtitled, even when subtitles are turned on, this is very frustrating for deaf users.

Before

After

Music

Music is an often-overlooked aspect of the game when it comes to accessibility. Game designers and developers use music to indicate danger. A deaf gamer playing this game is given a disadvantage because they are never quite as sure when they are going to be walking into a dangerous area. A simple solution for this is to use a danger meter that changes colors based on how dangerous the area is. For example it's green when no one is around, it's yellow when someone is in the room, it's orange when someone see's you and it is red when an enemy is attacking or shooting at you.

Hearing Impairment Continued

Below is an example of the danger meter, it is yellow because there is an enemy in the room but he hasn't seen the player yet.

Before

After

Radar and Enemy Position

The position of the enemy is another issue that deaf users have to overcome. The developers of Dirge of Cerberus have already addressed this issue by including an assault radar, when an enemy shoots at the player a circle is shown around the player that points in the direction of the shooter. The problem is that is only seems to work when an enemy is shooting at the player, if there is an enemy around that only performs physical attacks this radar is useless, which is actually OK for users who can hear, because they can hear these enemies from a distance. It would greatly enhance the experience for deaf gamers if this radar showed the location of enemies when they were in the players shooting range, instead of only when the enemy is shooting at the player.

Recommendations

1. Resizable text for the menus, captions and subtitles
2. Profiles for in game conversations so the user knows exactly who is speaking
3. Customizable colors for the menu display, subtitles and captions
4. Optional voiceovers for menu items, objectives and other important on screen text
5. The optional voiceovers need to have options so the user can customize the gender, speed, pitch and volume of the voice
6. In-game conversations should have profiles associated with them
7. The game should have optional full captioning; this includes captioning conversations, peripheral speech, and sound effects
8. An option to set up the game settings should be available on the start screen, this way users don't have to wait to start playing the game to set up the subtitling options
9. Subtitles during cut scenes need to be consistent both peripheral speech and sound effects should be captioned
10. A danger meter should be available on the Heads up display so deaf users are aware of the current danger in the area they are in
11. The assault radar should be available whenever there is an enemy present that is in attacking distance, not just when an enemy is shooting at the player