Design Document and Application Use Cases
March 8, 2010

IdanCE is an application built for the iPhone that targets spectators of figure skating. Using this app, audience members and fans across the world will be able to understand the moves, elements, techniques, and scoring methods of Ice Dance programs. In some ways, this program is like an encyclopedia for the sport of Ice Dance that allows a layman to learn all about the sport and become an expert within minutes. To illustrate the functionality of this application, I examine a variety of use cases in detail. In addition to detailing the basic features of each case, I also comment on additional features that may be added if time allows.

1. The spectator would like to learn about how the scoring system works for this sport.
2. The spectator observes a position that the ice skaters are holding on the ice and would like to look up the details.
3. The spectator observes a lift that the ice skaters perform and would like to learn about the lift.
   a. The spectator observes the path that the skates made on the ice and would like to learn about that specific type of lift.
   b. The spectator observes the details of the lift and would like to learn about the particular features that were displayed.
   c. The spectator observes a lift and would like to learn about the different levels of difficulty for such lifts.

Welcome to Ice Dance!

What is Ice Dance?
Ice Dance is one of the four disciplines of figure skating in which a male and female dance together on the ice...

Features of this App:
- Detailed information on both the WRS and US scoring systems
- Explanations of different moves including types, levels and features
- Descriptions and photos of various Ice Dance positions

... [more information]

This is the welcome page to the application. When the user opens the application, this is the first page she will come to.

From here, I will proceed through each of the four use cases detailed above.
Use Case #1:
The spectator would like to learn about how the scoring system works for this sport.

First, the user must select the “Scoring” tab on the bottom of the screen.

When that tab is selected, the user will come to a page on the World Ranking System (WRS). This page will have detailed information about this scoring system and how it works.

If the user would like to learn about the International Judging System (IJS), the user may select the tab at the top of the screen, and will come to the following screen:

Additional features:
- The IJS screen may have links that allow the user to jump directly to individual information pages about each of the individual elements that detail how scoring works.

... Include tables, formulas and charts.
Use Case #2:
The spectator observes a position that the ice skaters are holding on the ice and would like to look up the details.

First, the user must select the “Positions” tab on the bottom of the screen.

When the tab is selected, a menu will appear on the screen that shows a list of all possible positions including the name, a picture, and a short description of the position.

Furthermore, the user may select a particular position and when the user clicks on that rectangle, a new screen will appear that discusses, more specifically, the position. For example, if the user selects “Reverse Killian,” the following screen would appear.

This information page would also include one extra button (back), which allows the user to return to the menu of Positions.

Additional features:
- The information pages could contain links to the original “Scoring” pages.
- The information pages could also include a video of a pair holding that position and discussing the different ways in which this position could be used.
Use Case #3:
The spectator observes a lift that the ice skaters perform and would like to learn about the lift.

First, the user must select the “Moves” tab at the bottom of the screen.

When the tab is selected, a menu will appear that allows the user to select a category of moves. A brief description may describe the differences between the categories.

The user may then select a category and proceed the home page for that category. For example, in this case, the user is looking for information on a specific type of lift. Here is the screen that will appear when the user touches the “Lifts” button:

The homepage of the “Lifts” category will simply provide an overview of what a lift is, how many different types, levels and features there are and how those three are related. There may also be a picture on this page.

To learn the details of a specific type, level or feature of the lift, the user would have to select a button from the top of the screen. The following three sub-use cases detail the screens the user would see upon looking for this information.

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There are four major categories of moves in Ice Dance. Each category encompasses a variety of types, levels and features. Please select a category below:

In Ice Dance, a Lift is when... [description]

There are 7 different types of lifts. The “type” describes the path that the skater takes when doing the lift.

In addition to types, there are 4 levels of lifts. These levels are determined by a set of requirements.

The requirements are made up of features.

For example,....
Use Case #3a:
The spectator observes the path that the skates made on the ice and would like to learn about that specific type of lift.

Once the user selects the “Types” button at the top of the previous screen, this screen appears. It is much like the menu that appears for the different positions. It simply contains a diagram of the path that the lift must take to be considered that type of lift along with the name and a brief description.

The user may then touch any of these boxes to proceed to an information page with a much more detailed description of that particular type of move. For example, if the user selects the Curve Lift, the following screen will appear:

This information page would also include one extra button (back), which allows the user to return to the menu of Types of Lifts.

Additional features:
- The information pages could contain links to the original “Scoring” pages.
- The information pages could also include a video of a pair performing a lift along this particular path, although it is not really necessary since the diagram should be sufficient.
Use Case #3b:
The spectator observes the details of the lift and would like to learn about the particular features that were displayed.

When the “Features” tab is selected, a menu will appear that allows the user to select a category of features. A brief description may describe the differences between the categories.

Once the user selects a category, the following screen will appear, which allows the user to select a particular feature to learn more about.

After the user selects a particular feature by clicking on the menu, an information page will appear like the one shown to the left here.
Use case #3c:
The spectator observes a lift and would like to learn about the different levels of difficulty for such lifts.

<table>
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<th>Overview</th>
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<tr>
<td># Features</td>
<td>Other Comments</td>
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Level 1:

Level 2:

Level 3:

Level 4:

When the user selects the “Levels” menu, a screen with a table like the one shown here will appear. The table will display the number of features that are required for each level as well as some brief comments. In addition, each level will have an arrow button that allows the user to touch and proceed to a screen with more details about that particular level. For example, if the user would like to see what is required of the most basic level (Level 1 Lift), the application would take the user to the following screen:

Additional features:
- The Level One Lift information page could also contain links to the other levels so that the user does not have to go back to the menu page.
- The information page could also contain links to the overview of scoring pages so that the user may jump directly to that information.