

BREAKDANCE FIGHTER

Functional Specs:

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Executive Summary:

Break Dance Fighter is a mobile game, written in J2ME, themed around break dancing and assimilated into the fighting genre. The player assumes the identity of Break Dance Fighter as he break dance fights his way through six different locations in Earth's gravitational field using a revolutionary new control



scheme. Fighting moves consist of regular attacks, combo moves, and taunts, all achieved through different button combinations.

The six stages include: in a barn, at a bar, in the streets, on a park basketball court, at a disco club, and finally on the moon.

In each stage, Break Dance Fighter must fight his way through two "goons" and one "boss." He is evaluated based on his fighting ability and style and earns Rep not

only for using combos but also for gaining crowd approval. He is rewarded by earning more Rep, which he can then spend on un-lockable content.



Menu Tree:

This is the menu tree for BreakDanceFighter. The menu screens that lead to game screens are indicated. You may read about the menu in more detail on the following two pages.



Menu Screens:

The **Main Menu** gives the following options:

Career—This is the main mode of play for BDF. Progress is stored to allow players to resume their game at a later time without losing progress. This choice takes the player to the "Select a Style" screen.

Special—Special games include a variety of play modes, some of which are un-lockable. Takes player to "Select a Style" screen.

Training—The training section is where a player customizes his character and practices his moves and combos. Takes player to "Training" screen.



Select a Style: Presents the player with a selection of three different styles, each of which has its own unique strengths and weaknesses.



1 Speed—Style 1 is extremely fast, but in order to achieve this speed, some strength is sacrificed.

2 Power—Style 2 is the slowest character, but it deals the most damage per hit of any playable character.

3 Balance—Style 3 is average in all respects. It is a well balanced style, good for beginners.

After the player has selected a style, if the game mode is normal, they will be taken to "Stage 1," else they will be taken to the "Select a Stage" screen.

Training: The training screen is the main hub for players to view their in game progress, buy new combos, and practice their moves. Upon reaching this screen the player is shown the following options:

Shop—Takes Screen containing 9 "cards" which contain combos available to buy for increasing amounts of "rep." The screens will initially start out with the 9 cheapest combos and as the player buys them, more expensive combos will fill in, until all combos and bonus items have been purchased.

Stats—Bulletin board screen contain player stats for playtime, wins, losses, damage, rep, bonuses, and progress.

Practice—Enters player into a special combat level where he takes no damage and can access his combos to view the button combinations.



Special Modes: Allows the player to select which special game type he'd like to compete in. All choices take the player to the same screen, but each stage can vary depending on the game type.

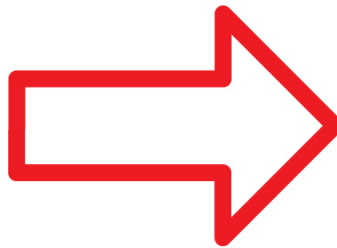


Select a Stage—Screen containing options for each of the 6 regular stages and 3 bonus stages. Each stage must be completed in "regular" mode in order to be accessed in "special" mode. Once the player makes his selection here, he is taken into combat.

Survival—Takes player to "Select a Stage" screen.

Boss Fights—Takes player to "Select a Stage" screen.

Shop: The shop, pictured on the left, contains all the combos and taunts currently available to the player to purchase. These bonus items are acquired through gaining rep, essentially BDF currency. Once a player has earned enough rep, he can come here to check out the available combos. After selecting the number of the desired combo, the player is taken to the shop-item screen, pictured on the right.



Select a Stage: This is the final screen the player sees before entering any special combat mode. He is presented with the six game stages and once he has chosen one by pressing the corresponding number on the phone, he is entered into combat.



Stages:

Stages consist of 3 fights each, two goons and a boss. The goons are weaker than the boss, and are fought individually. When a player enters a level, he is taken to the beginning of the stage. Here he is met with an opening fight with a goon. After beating the goon, the player advances to the next goon fight. The second goon is slightly more powerful than the first, but still substantially less powerful than the level boss. After defeating the level boss, the player is then transported to the the next level in normal mode, or back to the source menu screen in special modes.

The Training Stage is a smaller version of a normal stage. The player begins a fight where he cannot be injured to practice purchased combos.

The win state for the stage occurs when a player defeats the final boss of that stage. The player is then rewarded with "Rep" points as currency for purchasing combos, and is transported to the next stage. The loss state for the stage occurs when the fighter's health reaches zero. The player is then transported back to the beginning of the stage to begin again.

Combat System:

The combat system will be much like standard 2-D fighter games. Each fighter will have a lifebar at the top of the screen which displays the fighters remaining health. A fighter wins by bringing his opponent's health to zero. Collision detection will be calculated by the distance from the centerpoint of each fighter. Fighters will not be allowed to move through each other, but will be able to switch sides by jumping or using moves that transport the fighter.

In addition, each fighter will have a "Crowd-Meter," which displays their standing with the crowd. Using moves repetitively, over-using blocks, or not using combos will decrease the fighter's Crowd-Meter, while using impressive dance style will increase it. If the Crowd-Meter gets low enough, the crowd will start interfering with the fight, causing damage and/or stunning the fighter. If it gets high enough, the fighter will benefit from increased ability.

Control System:

BreakDanceFighter employs a novel control system designed specifically for cell phones, and to more closely emulate dancing than conventional 2-D fighter systems. Like the menus, all actions are performed using the 9 number keys on the phone keypad. In the BDF system, there is no distinction between attacks and movement – each button press both executes an attack and moves the fighter in the associated direction (See Figure 2). Just as in real-world breakdance competition, every movement on the dance floor is also a part of the dance exhibition.

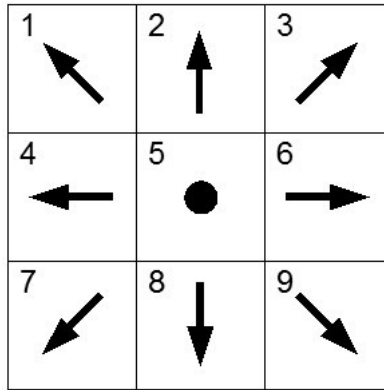


Figure 2. Attack/Movement Directions

There are 9 basic maneuvers in the game, including 6 attacks and 3 blocks. The top row of buttons will execute aerial moves, the middle row will do normal moves, and the bottom row will attack low to the ground. Depending on which side of the screen the fighter is standing, forward-facing movements will execute charging attacks, movements to the rear will block/dodge, and the middle column will attack without moving.

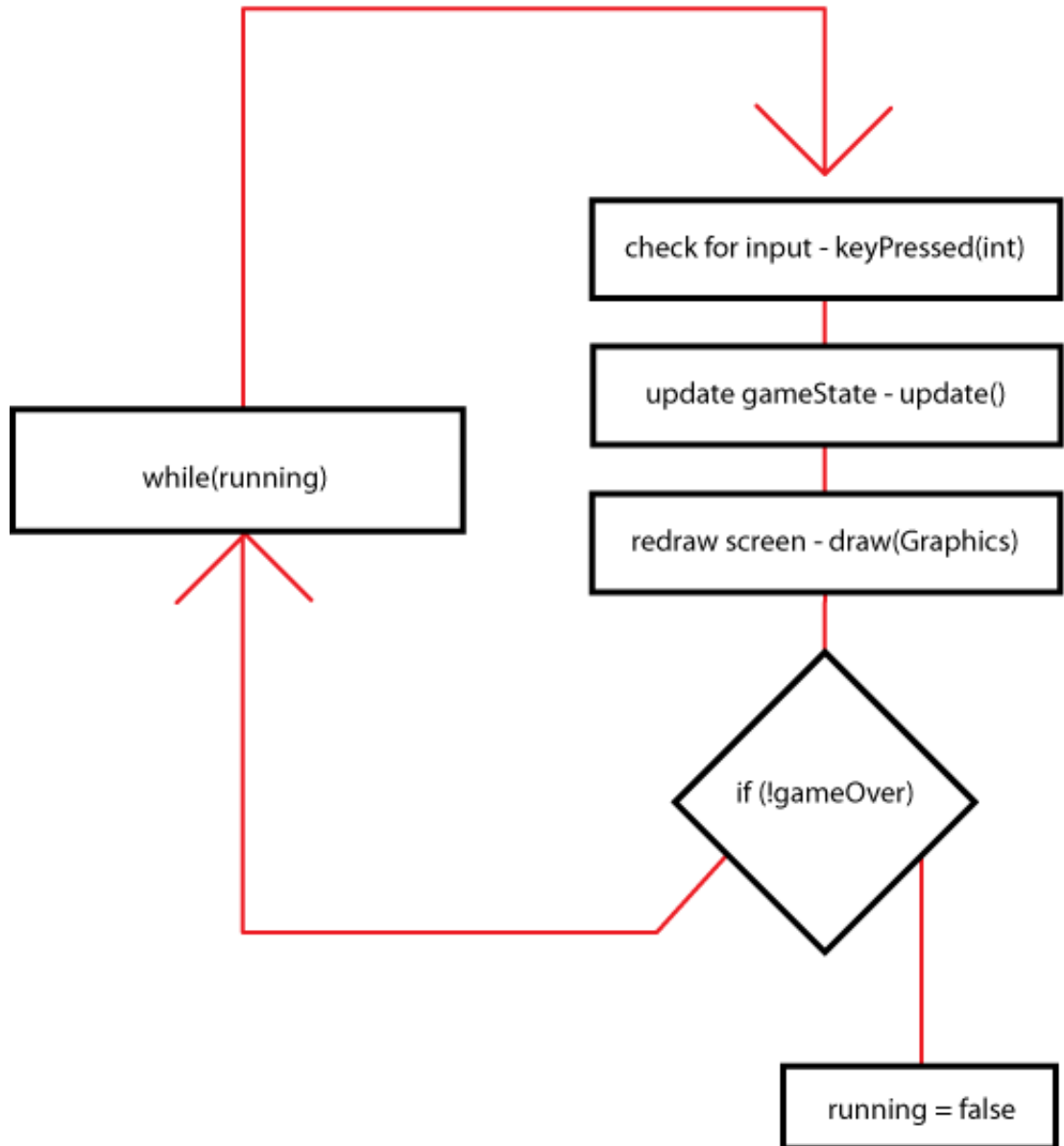
For example, if the fighter is facing to the right, 3 will execute advancing jump attack, 6 will execute a strong frontal attack and step, and 9 will execute a sliding kick attack. 2, 5, and 8, will control stationary attacks, high, middle, and low, respectively. 1, 4, and 7 will be defensive movements, causing the fighter to jump back, block without moving, or duck away from aerial attacks, respectively. Using 4 leaves the fighter more vulnerable, but more able to attack.

In addition, the player can use Combo Moves to do a great deal of damage, as well as to improve his standing with the crowd. These are executed by executing attacks in specific sequences, and are akin to special moves in traditional fighter games, but can be strung along to juggle the enemy as well. Some combos will do little or no damage, but will taunt the enemy and drastically improve crowd standing.

Technical Information:

BDF was written in the Java 2 Micro Edition, and was originally designed for the Motorola Razr V3. The BDF team picked a particularly difficult phone to develop for because we thought if we ever wanted to port this game, most of our memory restriction and file size issues would already have been taken care of. We implemented the GameCanvas class as our main game area. Since BDF has such a unique control structure, we needed to retain some methods related to input from the Canvas class. The main game loop runs as such:

BDF Main Game Loop



Contact Info:

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