

Window Control

```
////////////////////////////////////  
//  
// printDerby  
//  
// prints the current state of the derby (board) to  
// the screen along with current number of Bots  
// Note: could be modified to only rewrite changes  
//  
////////////////////////////////////  
void SumoBotDerby::printDerby(void){  
    for(int r=0; r < ARENA_L; r++){  
        for(int c=0; c < ARENA_W; c++){  
            // NOTE: position switch due to setCursorPosition orientation x,y --> c,r  
            setCursorPosition(c, r);  
            if(arena[r][c] == nullptr)  
                cout << " ";  
            else if(arena[r][c]->getType() == '_')  
                cout << "-";  
            . . .  
        }  
        cout << "Time Step: " << time_step << "   Johnson Bots: " << getJbotCount()  
            << "   Widder Bots: " << getWbotCount() << endl;  
    }  
}
```

```
////////////////////////////////////  
//  
//setCursorPosition  
//  
// Routine to hold the display still and rewrite each cycle  
// Sets the cursor location for drawing  
//  
// NOTE: x,y here translates to column,row in an array  
//  
////////////////////////////////////  
void SumoBotDerby::setCursorPosition(int x, int y){  
    static const HANDLE hOut = GetStdHandle(STD_OUTPUT_HANDLE);  
    std::cout.flush();  
    COORD coord = { (SHORT)x, (SHORT)y };  
    SetConsoleCursorPosition(hOut, coord);  
}
```

