

BILLBOARD MULTILINGUAL ONLINE SYSTEM (BMOS)

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ABSTRACT

Billboard Multilingual Online System is a system that sends an instant update message about games in a stadium to other computer into various type of language. This system operates using switch and router to connect to another language billboard. The main computer which is the default language will be controlled by an administrator to send the update result of the game such as current score, current match time and home and name of the team in the game. This scoreboard system can translate language into another language simultaneously during the games event.

ABSTRAK

Billboard Multilingual Online System (BMOS) adalah sistem yang menghantar mesej update segera tentang permainan di stadium ke komputer lain ke dalam pelbagai jenis bahasa. Sistem ini beroperasi menggunakan switch dan router untuk menyambung ke bahasa lain billboard. Komputer utama yang merupakan bahasa asasnya ialah bahasa Inggeris akan dikawal oleh admin untuk menghantar keputusan semasa perlawanan seperti skor, waktu perlawanan di dalam sesuatu permainan. Sistem papan skor boleh menterjemah bahasa kepada bahasa yang lain secara serentak semasa acara dilangsungkan.

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CHAPTER I

INTRODUCTION

1.1 Background

A billboard or scoreboard is a large board for publicly displaying the score in a game or match. Most levels of sport from high school and above use at least one scoreboard for keeping score, measuring time, and displaying statistics. Scoreboards in the past used a mechanical clock and numeral cards to display the score. When a point was made, a person would put the appropriate digits on a hook. Most modern scoreboards use electromechanical or electronic means of displaying the score. In these, digits are often composed of large dot-matrix or seven-segment displays made of incandescent bulbs, light-emitting diodes, or electromechanical flip segments. An official or neutral person will operate this scoreboard system, using a control panel. This scoreboard system will show the score for the home and away team, as well as the current match time. A board displaying the current stoppage time is usually held up

up by one of the match officials towards the end of the first and second half. The same board is also used to denote the jersey numbers of players coming in and leaving the game during a substitution, with the substitute's number appearing in green, while the leaving player is denoted in red.

System came from the Latin word, which mean that is a set of interacting or interdependent entities, real or abstract, forming an integrated whole. The concept of an integrated whole can also be stated as a set of relationships which are differentiated from relationships of the set to other elements, and from relationships between an element of the set and elements not a part of the relational regime.

Multilingual is an ability of someone or something that can communicate into more than one language fluently. Billboard Multilingual Online System is a system that sends an instant update message about games in a stadium to other computer into various type of language. This system operates using switch and router to connect to another language billboard. The main computer which is the default language will be controlled by an administrator to send the update result of the game such as current score, current match time and home and name of the team in the game. This scoreboard system can translate language into another language simultaneously during the games event.

1.2 Problem Statement

- i) There are no scoreboard system can translate language simultaneously during the games into various language.
- ii) It is costly to hire Multilanguage translator to translate the result.
- iii) It is taking time and hard to the translator and the broadcaster to broadcast the result.

1.3 Project Objective

The primary objectives to be implementing in this project are:

- i) To create a system that can translate and tell the broadcaster simultaneously the current result of the game.
- ii) To save and low the cost in hiring the translator to translate the current result for the broadcaster to broadcast the current result to their language.
- iii) To ease and reduce the use of time of the broadcaster to broadcast the current result to the spectators and the fans.

1.4 Project Scope

The scopes of this project are:

- i) This system can use to know the current result until the game is over simultaneously.
- ii) Uses computer as a simulator to represent the scoreboard in the stadium during the game.
- iii) The broadcaster, spectators and the fans can use this system to know easily the current result of the game due to this system built using the easy and short worldwide language.
- iv) This system automatically translates the default language which is English language to another language such as French, mandarin, Hebrew, Malay, Italian and German.

1.5 TESIS ORGANIZATION

This thesis consists of 6 chapters. Chapter 1 will discuss about the Introduction to the System. These first chapters briefly explain about the objective of the system, problem statement and project scopes. Chapter 2 and 3 are about the Literature Review and Methodology of the project. Chapter 2 and 3 will discuss about the methods that will be used, elaborating the sources from the research, and deciding the best tools that will be used to build the system. Chapter 4, Implementation; it is about the documentation of the processes during the development of the system, including any modification that been plan and made. While the last, Chapter 5 Result and Discussion and Chapter 6 Conclusion. Chapter 5 will explain about the result that have collected from the analysis and tests of the system along with the constraints and suggestion to enhance the system performance. Conclusion and overall summary of the system, data, methodology, implementation, and the suggestions are in the matter of the discussion on of the Chapter 6.

CHAPTER 2

LITERATURE REVIEW

2.1 The Term of Online

In general, when a machine is "online," it is turned on and connected to other devices. For example, when a network printer is online, computers connected to that network can print from it. Other devices, such as scanners, video cameras, audio interfaces, and others are said to be online when they are running and connected to a computer system.

Recently, however, the term "online" usually means being connected to the Internet. The connection can be through a phone line, using a dial-up or DSL modem, a cable line via a cable modem, or through a wireless connection. A computer can also be online via a connection to a computer network. Technically, computers that are on a network are online even if they are not connected to the internet.

There is one function in Microsoft Word 2007 to change from English language to other language. Figure below is the tutorial on how to activate this function:

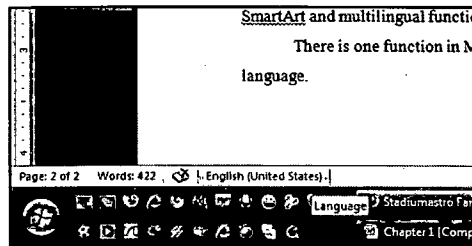


Figure 2.1

- i) Point your mouse at the English (United States) bar and click it

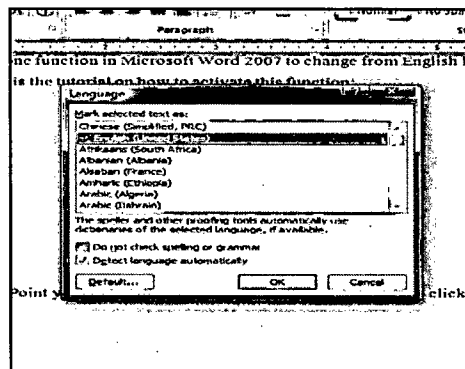


Figure 2.2

- ii) After that there is one box appear to ask the user to choose any language and you can choose any language you want and click ok. Then Microsoft Word 2007 will change into the chosen language.

2.2.2 Mozilla Firefox

Mozilla Firefox is a free and open source web browser descended from the Mozilla Application Suite and managed by Mozilla Corporation. Firefox had 22.47% of the recorded usage share of web browsers as of July 2009, making it the second most popular browser in terms of current use worldwide, after Microsoft's Internet Explorer. Latest Firefox features include tabbed browsing, spell checking, incremental find, live bookmarking, a download manager, private browsing, location-aware browsing and a language bar. Functions can be added through add-ons, created by third-party developers, of which there is a wide selection, a feature that has attracted many of Firefox's users.

We can use Firefox in various type of language such as, Mandarin, French, Spain and Dutch. If we want to use this various type of Firefox, we must download its installer. For example, if a Spain user wants to use Firefox in his or her language, he or her need to download the Spain version of Firefox at <http://www.mozilla.com/en-US/firefox/all.html> and install it in your system.

2.3 Billboard

2.3.1 Brief Definition

A billboard or scoreboard is a large board for publicly displaying the score in a game or match. Most levels of sport from high school and above use at least one scoreboard for keeping score, measuring time, and displaying statistics. Scoreboards in the past used a mechanical clock and numeral cards to display the score. When a point was made, a person would put the appropriate digits on a hook.

Most modern scoreboards use electromechanical or electronic means of displaying the score. In these, digits are often composed of large dot-matrix or seven-segment displays made of incandescent bulbs, light-emitting diodes, or electromechanical flip segments.

An official or neutral person will operate this scoreboard system, using a control panel. This scoreboard system will show the score for the home and away team, as well as the current match time. A board displaying the current stoppage time is usually held up by one of the match officials towards the end of the first and second half. The same board is also used to denote the jersey numbers of players coming in and leaving the game during a substitution, with the substitute's number appearing in green, while the leaving player is denoted in red.

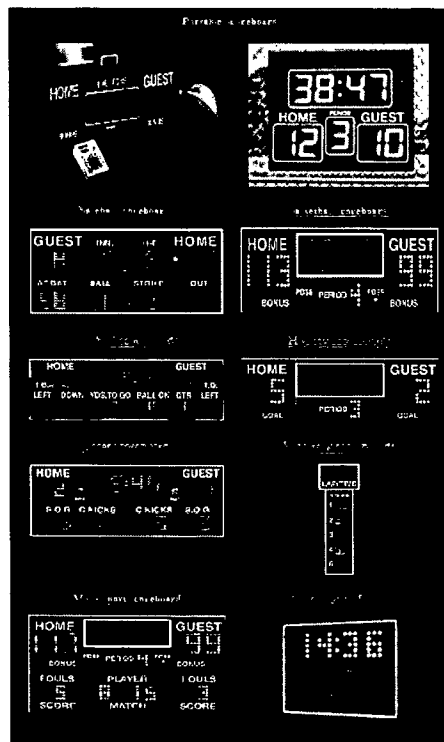


Figure 2.3: Type of Scoreboard / Billboard

2.3.2 Technology

Prior to the 1980s most electronic scoreboards were electro-mechanical. They contained relays or stepping switches controlling digits consisting of incandescent light bulbs. Beginning in the 1980s, advances in solid state electronics permitted major improvements in scoreboard technology. High power semiconductors such as thyristors and transistors replaced mechanical relays, light-emitting diodes first replaced light bulbs for indoor scoreboards and then, as their brightness increased, outdoor scoreboards. Light-emitting diodes last many times as long as light bulbs, are not subject to breakage, and are much more efficient at converting electrical energy to light. The newest light emitting diodes can last up to 100,000 hours before having to be replaced.

Advances in large scale integrated circuits permitted the introduction of computer control. This also made it cost effective to send the signals that control the operation of the scoreboard either through the existing AC wires providing power to the scoreboard or through the air. Powerline modems permit the digital control signals to be sent over the AC power lines. The most common method of sending digital data over power lines at rates less than 2400 bits per second is called frequency shift keying (FSK). Two radio frequencies represent binary 0 and 1. Radio transmission such as FSK sends data digitally. Until recently radio transmission was subject to short range and interference by other radio sources. A fairly recent technology called spread spectrum permits much more robust radio control of scoreboards.

2.3.3 Types of Scoreboard @ Billboard

The use of scoreboard or billboard has rapidly expanded and being used in many types of sports. Below are the examples of billboards:

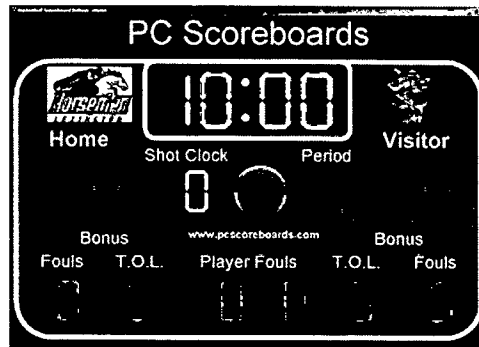


Figure 2.4: Basketball scoreboard

A basketball scoreboard will at the minimum display the time left in the period and both team's scores. The last minute of each quarter is usually displayed with tenths of a second, which is required in FIBA, NBA (since 1989), and NCAA (since 2001). Most high school scoreboards also include a display of the number of team fouls, the number of the last player to commit a personal foul (with the total number of personal fouls for that player), the period, and indicators of which team is in the team foul penalty situation (not used in FIBA play), and possession (with a separate possession arrow display at half-court). College basketball scoreboards include shot clocks and the number of time outs left for each team. Larger scoreboards include statistics on the players in the game. Basketball scoreboards must include a horn or buzzer to signal the end of a period, fouls, and substitutions.



Figure 2.5: Soccer scoreboard

A football scoreboard usually shows the score for the home and away team, as well as the current match time. A board displaying the current stoppage time is usually held up by one of the match officials towards the end of the first and second half. The same board is also used to denote the jersey numbers of players coming in and leaving the game during a substitution, with the substitute's number appearing in green, while the leaving player is denoted in red.

Some amateur and youth levels will have the clock count down. Some American venues will use a multi-purpose gridiron/soccer venue type scoreboard where various statistics are shown. Such may include either total fouls, corner kicks, shots on goal, or other important statistics for spectators to learn their team's overall performance.

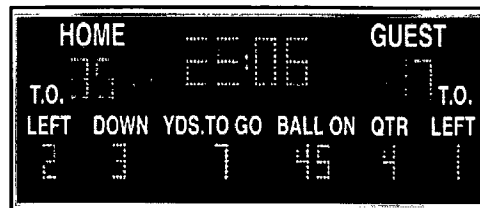


Figure 2.6: Baseball scoreboard

For baseball the scoreboard will at a minimum show both teams' scores, as well as the current inning. In addition the number of balls, strikes and outs is represented by digits or individual lights. Larger scoreboards offer an inning-by-inning breakdown of the scores, hits, errors, and the time of day. There may also be another display either separate or combined with the scoreboard listing the radar gun reading of the last pitch thrown in miles per hour. Almost all Major League facilities have a video board as a scoreboard or a matrix display. Usually these scoreboards are controlled via programs that keep statistics and not just the score. Usually the official scorer will operate this program. Then all the information the official scorer enters will automatically be output to the scoreboard.

2.4 The Term Of System

System came from the Latin word, which mean that is a set of interacting or interdependent entities, real or abstract, forming an integrated whole. The concept of an integrated whole can also be stated as a set of relationships which are differentiated from relationships of the set to other elements, and from relationships between an element of the set and elements not a part of the relational regime.

The scientific research field which is engaged in the study of the general properties of systems includes systems theory, systems science, systemic and

systems engineering. They investigate the abstract properties of the matter and organization, searching concepts and principles which are independent of the specific domain, substance, type, or temporal scales of existence.

Most systems share common characteristics, including:

- Systems have structure, defined by parts and their composition;
- Systems have behavior, which involves inputs, processing and outputs of material, energy or information; /
- Systems have interconnectivity: the various parts of a system have functional as well as structural relationships between each other.

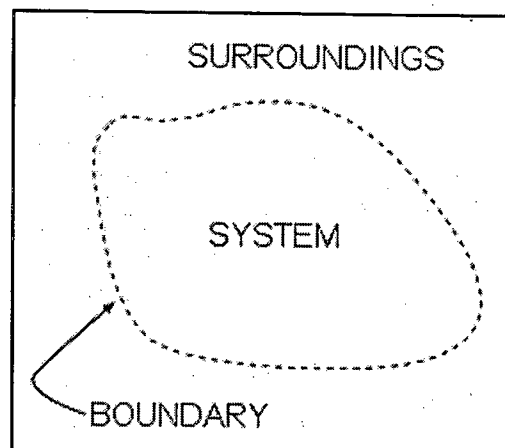


Figure 2.7: A schematic representation of a closed system and its boundary

CHAPTER 3

METHODOLOGY

3.1 Introduction

Methodology is a codified set of recommended practices, sometimes accompanied by training materials, formal educational programs, worksheets, and diagramming tool. It documented a set of procedures and guidelines for one or more phases of the software life cycle, such as analysis or design. Many methodologies include a diagramming notation for documenting the results of the procedure and an objective.

Basically, this chapter will discuss about the methodology that will be used for designing and implementing the Billboard Multilingual Online System (BMOS). This chapter also explains about the justification of methodology used and hardware and software necessity.