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Underwater hockey system

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Problem / opportunity statement:

The structure of the systems for managing competitions was ill defined, cumbersome, time consuming, labour intensive and liable to human error in calculations made under competition conditions. The opportunities that could be provided by a successful solution were: more efficiently run and therefore satisfying competitions, enhanced public image, improve player perception of the administration, possible growth in the sport and specifically assist underwater Hockey New Zealand succeed in its bit to attract the world championships in the next 2 to 4 years.

Project description:

Currently, Underwater Hockey NZ uses a number of informal and 'on the fly' type systems for managing competitions. Timing and scoring of games, and recording results during competitions, are done using pen and paper. Scores are displayed on small flip charts or white boards. There are also a number of different techniques used for the compilation of the competition draws, both prior to the start of the event for the 'round robin' games, and subsequently in the seeding and finals rounds. These loose arrangements draw heavily on volunteer time, and place great pressure on those who agree to undertake organisation of competitions are held, exacerbate the problems experienced by the national committee when making arrangements for competitions in centres with which there are not familiar.

Project Aim

To create a software-based system capable of timing games, keeping scores and recording competition results, and to provide a system that adheres to all of the game's rules and standards relating to clock stoppages and all other aspects of timing, yet which is completely flexibly in respect of duration of play periods to allow for competition run under "Local Rules". The interface for the system is intended to be very easy to understand and simple to use as volunteers unfamiliar with the program will often be called upon to run it. To achieve this it will be designed so that a minimal amount of input and/or computer knowledge s required to correctly use the program. This will in turn minimize user error and the need for error recovery procedures. The complexities of the game include optional timeout periods for teams and the possibility of referees calling for a stoppage of timed play due to injury or other special circumstances. In addition players may be penalised for a period of two for five minutes for foul play or dismissed for the remainder of the game in serious cases.

Project Objectives

This project will develop an innovative information technology system that will lead to growth in the sport, more efficient running of competitions, be cost effective and present a better public image.

Feedback from Ray Dolman, Underwater Hockey, New Zealand:

"The product they have presented us with exceeds our expectations in every way and is already proving to be a huge advantage to Underwater Hockey New Zealand. Control of our competitions is now much more effective and easier to manage as promised, and consequently the stress and strain on our volunteers, who organise and administer competitions, has greatly reduced. I have now seen the software operational at five of our major tournaments, and have been most impressed with how easy it has been for our people to learn to operate and the level of accuracy they have been able to achieve effortlessly. Players and coaches are now able to strategise much more effectively due to the accurate display of game time remaining. In addition, spectators seem to be becoming much more aware of the significance of time, and are intensifying the ambient poolside excitement, cheering on their teams. I believe this must be good for our sport."