



V International Forum on Elite Sport



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Beijing Sport University



IAHPSTC
International Association
High Performance Sports
Training Centers

International Forum
on Elite Sport



Sant Cugat High Performance Sport Training Center of Barcelona & www.mundoentrenador.com



Technological tools for daily needs – CAR Innovation - Mundoentrenador

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1- The Spanish National Team of Water polo



1.1 A new cycle, a new challenge

After the Olympics games of Atenas, The Spanish National Team of Water polo bet for players deep renovation to replace the gold generation of the Spanish Water polo, with a number of titles difficult to overcome.

Rafael Aguilar was selected to built the new team. He developed a methodology base on the use of the technology to reach as fast as possible the technical and tactical goals.

The new team has already got the classification to the Beijing Olympic Games and got the Bronze medal at the last World Cup In Melbourne and the Gold in the Mediterranean Games of Almeria.

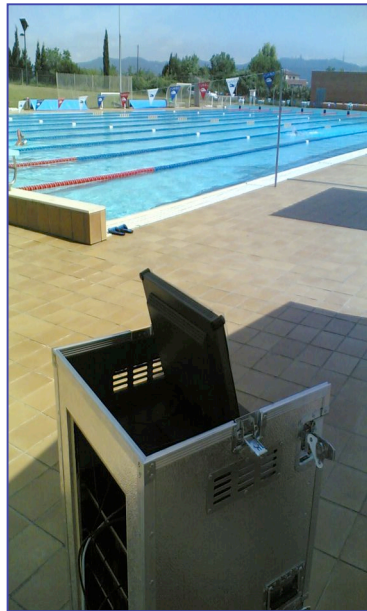
The Spanish media said “ the evolution of the young team is surprisingly fast”.





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1- The Spanish National Team of Water polo



1.2 Needs demanded by the National coach: Rafael Aguilar

- Systems of permanent recording for both training and friendly matches at the Sant Cugat High Performance Sport Training Center of Barcelona.
- Systems of real time statistics for competitions.
- Systems of match analysis based on video.
- Systems of analysis and presentation with maximum portability.
- Systems of visualization of the own work during the training.
- Systems of visualization of rival teams during the competition.





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1- The Spanish National Team of Water polo



1.3 Technological answers to the needs.

- Systems of permanent recording in the CAR, both of trainings and of friendly matches: **ROBOTIC EYE**
- Real Time Match statistics: **Mundoentrenador ERIC 2.0**
- Systems of match analysis based on video for competition.
Mundoentrenador SCOUTING SOFTWARE
- Systems of analysis and presentation with maximum portability.
COACH CKECK IN KIT
- Systems of visualization of rival teams during the competition:
ARCHOS and other VIDEO PLAYER SYSTEMS





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2.0- Technological tools at the Sant Cugat HPSTC of Barcelona



2.1 The Permanent Scouting System: ROBOTIC EYE:

Automated System of permanent recording: it consists of a robotic camera controlled from a control point by a joystick and a button list of predefined views selected by the trainers.

The video is sent to the control point where it can be:

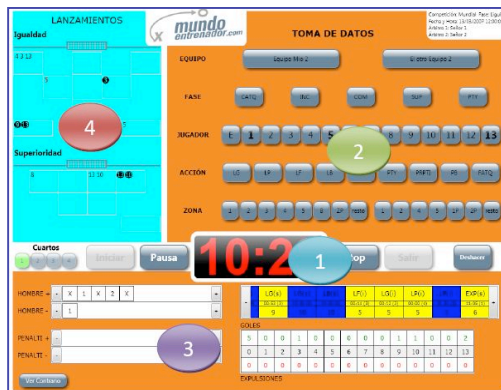
- Mixed with other available cameras,
- Digitalized in a computer for it use by the software of analysis,
- Transferred to real time screens,
- Upload en in database,
- Copied to DVD, etc.





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2.0- Technological tools at the Sant Cugat HPSTC of Barcelona



2.2 Real Time Match statistics ERIC 2.0:

Hardware (tablet pc) and software system for real time statistical game annotations. It contains an automatic generator of alarms to help the team staff to take decisions during the match.

It was specifically designed for the water polo but it can be used in others sports by changing just the front display of annotations.

[Video demo](#)



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2.3 Mundoentrenador Scouting Software:

Mundoentrenador Nac and Eric Scouting software solutions are based on video and allow easy real time annotations of the skills and tactical movements selected by the coach to be analyzed.

After the capture of information the edition of sequences of video is simple and quick. In a short time it is possible:

- To visualize the most important plays in the intervals of the match,
- To edit a video to be presented to the players after the match,
- To edit videos of rivals players and teams in order the national team players can watch them in their rest times.





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2.0- Technological tools at the Sant Cugat HPSTC of Barcelona



- Tablet PC with software
- Video camera and tripod
- Multimedia Player
- Portable Projector



2.4 Systems of analysis and presentation with maximum portability: The Coach check in Kit.

A comfortable suitcase with dimensions allowed in the cabin of a plane containing:

- A Tablet PC with the scouting and statistical software for analysis during competitions.
- A video camera with tripod for recording matches.
- A ultra portable projector to present analysis to the team.
- Multimedia player for individual visualization of skills and tactics analyzed.

The Coach check in kit allows the team staff to work everywhere at anytime.



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2.0- Technological tools at the Sant Cugat HPSTC of Barcelona



2.5 Systems of visualization of rival teams during the competition :

The Water polo Spanish team works with Archos multimedia player to let the players watch the skills and tactical movements selected by the staff during both training and rest times.



As with Archos, other multimedia players can be use for the same needs as:

- Ipod
- PSP
- Iphones



“A short video can explain to the player much more information than hours of oral instructions.”



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3.0. How these tools can be integrated

The presented tools can be integrated in a DAM (Multimedia Asset Directory) so all the users can store the videos and metadata obtained from cameras and annotation applications.

Moreover, any user depending on his permissions is capable of acceding both to the files of video and to the metadata to realize the analyses and reports needed.

The tools of analysis and statistical information that we have presented can work with different types of files of video. That means, any video located in developments as the Japanese commented in the previous presentation can be used by these tools to be analyzed and to edit reports.





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