

Ultra Score Data Out Protocol (for Waterpolo)

The Data Out function of Ultra Score program can export the real time timing and scoring data with UDP broadcast.

The broadcast is on port **2800**. Any software in the same network as Ultra Score can listen on this port to receive the real time data.

1. General Data

Item	Length	
Head	2 BYTES	0xFF 0xFE
ID	2 BYTES	0x91 0x01 for general data
System ID	1 BYTE	Identify each system in one stadium. 0x01 by default.
Length	2 BYTES	0x18 0x00 (Length=24)
Period	1 BYTE	1 st Period = 0x01, 2 nd Period=0x02
Match Timer Status	1 BYTE	This data composed by following flags: Match Timer=0x10, Break Timer=0x20 Timing=0x01, not start yet or paused=0x02 Ex: Match Timer is timing: 0x11, Break Timer paused: 0x22
Match Timer	3 BYTES	Minute part + second part + 1/10 second part. Ex: 0x0B 0x3B 0x05 when match timer is 11:59.5 0xFF 0xFF 0xFF means the match timer be closed (not display)
Shot Clock	2 BYTES	Second part + 1/10 second part. Ex: 0x17 0x09 when shot clock is 23.9. This data be used for Basketball (Shot Clock), American-football (Play Clock), Field-hockey (40'' or 8'' count down), Water-polo (Shot Clock) 0xFF 0xFF means the shot clock be closed (not display)
Timeout	1 BYTE	Ex: 0x3C when timeout 60 seconds 0xFF means no available timeout.
Team A Score	1 BYTE	
Team B Score	1 BYTE	
Team A Period 1 Score	1 BYTE	
Team B Period 1 Score	1 BYTE	
Team A Period 2 Score	1 BYTE	

Team B Period 2 Score	1 BYTE	
Team A Period 3 Score	1 BYTE	
Team B Period 3 Score	1 BYTE	
Team A Overtime Time 1 Score	1 BYTE	
Team B Overtime Time 1 Score	1 BYTE	
Team A Overtime Time 2 Score	1 BYTE	
Team B Overtime Time 2 Score	1 BYTE	
Team A Shootout Score	1 BYTE	
Team B Shootout Score	1 BYTE	
Team A Timeout times	1 BYTE	
Team B Timeout times	1 BYTE	
Foot	2 BYTES	0xFD 0xFC

2. Player Data

Item		Length	
Head		2 BYTES	0xFF 0xFE
ID		2 BYTES	0x92 0x01 for team A, 0x93 0x01 for team B
System ID		1 BYTE	Identify each system in one stadium. 0x01 by default.
Length		2 BYTES	0x78 0x00 (Length=120)
Player 1	Number	3 BYTES	Player number in ASCII mode. 0x31 0x35 0x00 when player number is 15. 0x00 0x00 0x00 when no player available.
	Score	1 BYTE	0x20 when player score is 32
	Personal Foul	1 BYTE	0x01 when player personal foul is 1
	Out of Water	1 BYTE	0x01 when player out of water
Player 2	Number	3 BYTES	
	Score	1 BYTE	
	Personal Foul	1 BYTE	
	Out of Water	1 BYTE	
...	
Player 20	Number	3 BYTES	
	Score	1 BYTE	
	Personal Foul	1 BYTE	
	Out of Water	1 BYTE	
Foot		2 BYTES	0xFD 0xFC

3. Penalty

Item		Length	
Head		2 BYTES	0xFF 0xFE
ID		2 BYTES	0x94 0x01 for team A, 0x95 0x01 for team B
System ID		1 BYTE	Identify each system in one stadium. 0x01 by

			default.
Length		2 BYTES	0x0F 0x00 (Length=15)
Penalty Info 1	Player Number	3 BYTES	Player number in ASCII mode. 0x31 0x35 0x00 when player number is 15.
	Penalty Time	2 BYTES	Minute part + second part 0x01 0x3B when penalty time is 119 second (01:59)
Penalty Info 2	Player Number	3 BYTES	
	Penalty Time	2 BYTES	
Penalty Info 3	Player Number	3 BYTES	
	Penalty Time	2 BYTES	
Foot		2 BYTES	0xFD 0xFC

4. Player on Court Data

Item		Length	
Head		2 BYTES	0xFF 0xFE
ID		2 BYTES	0x96 0x01 for team A, 0x97 0x01 for team B
System ID		1 BYTE	Identify each system in one stadium. 0x01 by default.
Length		2 BYTES	0x50 0x00 (Length=80)
Player 1	Number	3 BYTES	Player number in ASCII mode. 0x31 0x35 0x00 when player number is 15.
	On Court State	1 BYTE	0x01 when player on the court
Player 2	Number	3 BYTES	
	On Court State	1 BYTE	
...	
Player 20	Number	3 BYTES	
	On Court State	1 BYTE	
Foot		2 BYTES	0xFD 0xFC