Ultra Score Data Out Protocol (for Swimming)

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. Realtime Data (Sort by lane number)

Item		Length	
Head		2 BYTES	0xFF 0xFE
ID		2 BYTES	0x61 0x06 for real time data
System ID		1 BYTE	Identify each system in one stadium. 0x01 by default.
Length		2 BYTES	0xD8 0x00 (Length=216)
Event Number		1 BYTE	Current Event. Ex: 0x01 means event number 1
Heat		1 BYTE	Current Heat. Ex: 0x01 means heat 1
Total Laps		2 BYTES	Total Laps of current heat.
Match Time		12 BYTES	Time in ASCII format. Ex: 0x30 0x30 0x3A 0x30 0x31 0x3A 0x33 0x35 0x2E 0x32 0x31 0x33 for "00:01:35.213"
Athlete 1	Lane	1 BYTE	Ex: 0x00 means lane number 0. 0x01 means lane number 1. 0xFF means no athlete on this lane.
	Laps	2 BYTES	Ex: 0x01 means 1st lap. 0xFF 0xFF means the last lap (final result)
	Time	12 BYTES	Result in ASCII format.
	IRM	3 BYTES	DNS / DSQ
	Rank	2 BYTES	Rank in ASCII format. Ex: 0x31 0x00 for "1". 0x00 0x00 for no rank.
Athlete 2	Lane	1 BYTE	
	Laps	2 BYTES	
	Time	12 BYTES	
	IRM	3 BYTES	
	Rank	2 BYTES	
…		…	
Athlete 10	Lane	1 BYTE	
	Laps	2 BYTES	

	Time	12 BYTES	
	IRM	3 BYTES	
	Rank	2 BYTES	
Foot		2 BYTES	0xFD 0xFC

Each time an athlete touched the touch panel, his split time will be appearing into the "Time" part of that lane, as well as the rank information. This information will keep display for 8 seconds. When an athlete finished his game, the time and rank will be display, and keep until a new game started.

2. Heat Result Data (Sort by rank)

Item		**Length**	
Head		2 BYTES	0xFF 0xFE
ID		2 BYTES	0x62 0x06 for heat result
System ID		1 BYTE	Identify each system in one stadium. 0x01 by default.
Length		2 BYTES	0xB6 0x00 (Length=182)
Event Number		1 BYTE	Current Event. Ex: 0x01 means event number 1
Heat		1 BYTE	Current Heat. Ex: 0x01 means heat 1
Athlete 1	Lane	1 BYTE	Ex: 0x01 means lane 1.
	Time	12 BYTES	Result in ASCII format.
	IRM	3 BYTES	DNS / DSQ
	Rank	2 BYTES	Rank in ASCII format. Ex: 0x31 0x00 for "1". 0x00 0x00 for no rank.
Athlete 2	Lane	1 BYTE	
	Time	12 BYTES	
	IRM	3 BYTES	
	Rank	2 BYTE	
…		…	
Athlete 10	Lane	1 BYTE	
	Time	12 BYTES	
	IRM	3 BYTES	
	Rank	2 BYTES	
Foot		2 BYTES	0xFD 0xFC

3. Result Data for whole Event (Sort by rank)

Item	**Length**	
Head	2 BYTES	0xFF 0xFE
ID	2 BYTES	0x63 0x06 for result data
System ID	1 BYTE	Identify each system in one stadium. 0x01

			by default.
Length		2 BYTES	0xE9 0x03 (Length=1001)
Event Number		1 BYTE	Current Event. Ex: 0x01 means event number 1
Athlete 1	Heat	1 BYTE	Ex: 0x01 means heat 1
	Lane	1 BYTE	Ex: 0x01 means lane 1.
	Time	12 BYTES	Result in ASCII format.
	IRM	3 BYTES	DNS / DSQ
	Rank	3 BYTES	Rank in ASCII format. Ex: 0x31 0x00 0x00 for “1”. 0x00 0x00 for no rank.
Athlete 2	Heat	1 BYTE	
	Lane	1 BYTE	
	Time	12 BYTES	
	IRM	3 BYTES	
	Rank	3 BYTES	
…		…	
Athlete 50	Heat	1 BYTE	
	Lane	1 BYTE	
	Time	12 BYTES	
	IRM	3 BYTES	
	Rank	3 BYTES	
Foot		2 BYTES	0xFD 0xFC