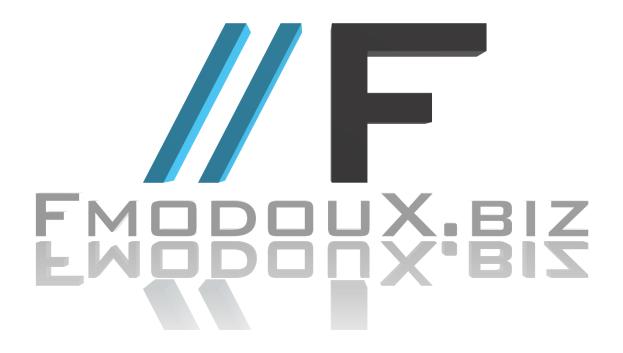# LIVE TV REAL TIME UDP PROTOCOL

3 characters based with semi-colon and delimiters, ultra-short content, request on demand, udp protocol.

Each packet MUST be folowed by a Carriage Return (hex 13) and Line Feed (hex 10) {"\r\n"}

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FXprotocol 2k22

STREAM DESCRIPTION	STREAM w/o ''	REQUIRED ARGUMENT(S)	OPTIONAL ARGUMENT(S)	SPORT	REQUEST
CLOCK	'clk;'	1	1	UWW / WT	"clock"
BREAK	'brk;	1	0	UWW / WT	"break"
PERIOD	'prd;'	1	0	WT	"period"
POINTS	'pt1;' / 'pt2;'	1	0	WT	
SCORE	'sc1;'	2	0	UWW / WT	"scores"
WARNINGS / GAM-JEOM	'wg1;'	2	0	UWW / WT	"warnings" / "gam-jeom"
CAUTIONS	'ct1;'	2	0	UWW	"cautions"
MATCH	'mch;'	14	0	UWW / WT	"informations"
ATHLETES	'at1;'	6	0	UWW / WT	"athletes"
AVANTAGE	'avt;'	1	0	UWW	"avantage"
INJURY	'ij1;' / 'ij2;'	1	1	UWW / WT	"ij1" / "ij2"
ACTIVITY	'ac1;' / 'ac2;'	1	1	UWW	"ac1" / "ac2"
WINNER	'wmh;'	2	0	UWW / WT	"winmatch"
IDENTIFICATION	'mat;'	3	0	UWW	"identification"
CHALLENGE / IVR	'ch1;'	1	1	UWW / WT	
REFEREES	'ref;'	2	x	UWW / WT	"referees"
PRELOAD	'pre;'	0	1	UWW / WT	
READY	'rdy;'	0	1	UWW / WT	
TIMEOUT	'to1;' / 'to2;'	1	1	WT	
HELLO / BYBYE	'hel;' / 'bye'	0	0	UWW / WT	

CLOCK

UWW / WT

Stream broadcasted when clock change, operator start, correct or stop the clock, or when period is finished

MAIN STREAM	clk;	
REQUIRED ARGUMENT	1:23	*Scoreboard clock*
OPTIONAL ARGUMENT	;start	*Operator action : starting the clock*
	;stop	*Operator action : stopping the clock*
	;corr	*Operator action : correcting the clock*
	;stopEnd	*Automatic action : end of period / match*

EXAMPLES w/o ''   *'clk;1:59;start' / 'clk;1:58' / 'clk;1:57;stop' / 'clk;0:00;stopEnd'*

BREAK

UWW / WT

<u>Stream broadcasted during the breaking time (inter-periods)</u>

MAIN STREAM   brk;

REQUIRED ARGUMENT   59   *Scoreboard break {ss}*

                                 0:59   *Scoreboard break {m:ss}*

EXAMPLES w/o ''   'brk;0:59' / 'brk;58' / 'brk;0:00;stopEnd' / 'brk;0;stopEnd'

PERIOD

WT

<u>Stream broadcasted when period (round) changes</u>

MAIN STREAM   prd;

REQUIRED ARGUMENT   1   *Period number 1*

                                                2   *Period number 2*

                                                3   *Period number 3*

                                                4   *Period number 4*

EXAMPLES w/o ''   'prd;1' / 'prd;2' / 'prd;3' / 'prd;4'

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POINTS

Stream broadcasted when points are added

MAIN STREAM	pt1;	Main stream for athlete 1
	pt2;	Main stream for athlete 2
REQUIRED ARGUMENT	1	*Punch point*
	2	*Body point*
	3	*Head point*

EXAMPLES w/o ''   'pt1;1' / 'pt1;2' / 'pt1;3' / 'pt2;1' / 'pt2;2' / 'pt2;3'

FXprotocol 2k22

SCORE

UWW / WT

Stream broadcasted when score changes

MAIN STREAM sc1;

REQUIRED ARGUMENTS 1 *score of athlete 1*

;sc2; *delimiter for athlete 2*

2 *score of athlete 2*

EXAMPLES w/o '' *'sc1;1sc2;2' / 'sc1;18;sc2;24'*

WARNINGS / GAM-JEOM

UWW / WT

Stream broadcasted when warnings / gam-jeom changes

MAIN STREAM   wg1;

REQUIRED ARGUMENTS   1   *warning / gam-jeom of athlete 1*

                                        ;wg2;   *delimiter for athlete 2*

                                        2   *warning / gam-jeom of athlete 2*

EXAMPLES w/o ''   'wg1;1;wg2;2' / 'wg1;4;wg2;3'

CAUTIONS

Stream broadcasted when cautions changes

MAIN STREAM ct1;

REQUIRED ARGUMENTS 1 *Cautions of athlete 1*

;ct2; *delimiter for athlete 2*

2 *Cautions of athlete 2*

EXAMPLES w/o '' *'ct1;1;ct2;2' / 'ct1;4;ct2;3'*

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MATCH

UWW / WT

Stream broadcasted when match is loaded

MAIN STREAM	mch;	
REQUIRED ARGUMENTS	1234	*Match number*
	;1/8 final	*Round / Phase*
	;Men -59Kg	*Sport / Discipline*
	;1	*Mat / Court*
	;#000000	*Color Athlete 1*
	;#FFFFFF	Text Color Athlete 1
	;#000000	*Color Athlete 2*
	;#FFFFFF	Text Color Athlete 2
	;a14ddd5c	GUID
	;Senior	Age category / Division
	;2	Number of periods
	;120	Period duration
	;cntDown	Count up or count down clock
	;3	Hit level

EXAMPLE w/o '' 'mch;1234;1/8 final;Men -59Kg;1;#000000;#FFFFFF;#000000;#FFFFFF;a14ddd5c;Senior;2;120;cntDown;3'

ATHLETES

UWW / WT

<u>Stream broadcasted when match is loaded or when names or country changes</u>

MAIN STREAM   at1;

REQUIRED ARGUMENTS   F.MODOUX   *Short name athlete 1*

                               ;Frederic MODOUX   *Long name athlete 1*

                               ;SUI   *Team athlete 1*

                               ;at2;   *Delimiter for athlete 2*

                               F.MODOUX   *Short name athlete 2*

                               ;Frederic MODOUX   *Long name athlete 2*

                               ;SUI   *Team athlete 2*

EXAMPLE w/o ''   *'at1;F.Modoux;Frederic MODOUX;SUI;at2;F.MODOUX;Frederic MODOUX;SUI'*

AVANTAGE

UWW

Stream broadcasted when score is equal and advantage changes

MAIN STREAM   avt;

REQUIRED ARGUMENT   1   *Athlete number having avantage (0 if none)*

EXAMPLES w/o ''   *'avt;1' / 'avt;2' / 'avt;0'*

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INJURY

UWW / WT

<u>Stream broadcasted when injury time is running</u>

MAIN STREAM	ij1;	Main stream for athlete 1
	ij2;	Main stream for athlete 2
	ij0;	Main stream for unidentified athlete
REQUIRED ARGUMENT	1:23	*Clock of the injury time*
OPTIONAL ARGUMENT	;show	*When showing the injury time*
	;hide	*When hiding the injury time*
	;reset	*When reseting the injury time*

EXAMPLES w/o ''   'ij1;1:23;show' / 'ij1;1:22' / 'ij1;1:21;hide' / 'ij2;0:45;show' / 'ij2;0:44' / 'ij2;0:44;hide' / 'ij0;1:42'

ACTIVITY

UWW

<u>Stream broadcasted when activity time is running</u>

MAIN STREAM   ac1;

                             ac2;

REQUIRED ARGUMENT   1:23   *Clock of the activity time*

OPTIONAL ARGUMENT   ;show   *When showing the activity time*

                             ;hide   *When hiding the activity time*

                             ;reset   *When reseting the activity time*

EXAMPLES w/o ''   'ac1;28;show' / 'ac1;27' / 'ac1;26;hide' / 'ac2;9;show' / 'ac2;8' / 'ac2;7;hide'

WINNER

UWW / WT

<u>Stream broadcasted when winner is selected and can be update when classification points are selected</u>

MAIN STREAM   wmh;

REQUIRED ARGUMENTS   F.MODOUX   *Winner name*

                                            ;3-0VF   *Classification points*

EXAMPLES w/o ''   *'wmh;F.MODOUX' / 'wmh;F.MODOUX;3-0VF'*

//F FMODOUX

IDENTIFICATION

Stream broadcasted when requested only

MAIN STREAM   mat;

REQUIRED ARGUMENTS   1   *Mat or court number*

                         ;xxx.xxx.xxx.xxx   *IP of the scoreboard PC*

                         ;V1.2   Software version

EXAMPLE w/o ''   *'mat;1;192.168.0.1;V1.2'*

FXprotocol 2k22

CHALLENGE / IVR

UWW / WT

<u>Stream broadcasted when challenge / IVR is requested or updated</u>

MAIN STREAM	ch1;	Main stream for athlete 1
	ch2;	Main stream for athlete 2
REQUIRED ARGUMENT	1	*Boolean if challenge is accepted or denied. -1 for canceled challenge*
OPTIONAL ARGUMENT	;1	*Boolean if the accepted challenge is won or lost*

EXAMPLES w/o ''   'ch1;' / 'ch1;0' / 'ch1;1' / 'ch1;1;0' / 'ch1;1;1' / 'ch2;' / 'ch2;0' / 'ch2;1' / 'ch2;1;0' / 'ch2;1;1' / 'ch1;-1' / 'ch2;-1'

//F FmodouX

REFEREES

UWW / WT

Stream broadcasted before match start or when referees name/team changes

MAIN STREAM	ref;	
REQUIRED ARGUMENT	Referee NAME	*Name of the referee*
	;SUI	*Team of the referee*
OPTIONAL ARGUMENTS	;ju1	*Delimiter for 1st judge*
	;Judge NAME	*1st judge name*
	;SUI	*1st judge team*
	;ju2	*Delimiter for 2nd judge*
	;Judge NAME	*2nd judge name*
	;SUI	*2nd judge team*
	;ju3	*Delimiter for 3rd judge*
	;Judge NAME	*3rd judge name*
	;SUI	*3rd judge team*

EXAMPLE w/o ''   *'ref;Frederic MODOUX;SUI;ju1;Frederic MODOUX;SUI;ju2;Frederic MODOUX;SUI;ju3;Frederic MODOUX;SUI'*

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PRELOAD

UWW / WT

<u>Stream broadcasted when match is preloaded</u>

MAIN STREAM   pre;

OPTIONAL ARGUMENT   FightLoaded   *Any optional comment*

EXAMPLE w/o ''   *'pre;' / 'pre;FightLoaded'*

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READY

<u>Stream broadcasted when match is ready to start</u>

MAIN STREAM   rdy;

OPTIONAL ARGUMENT   FightReady   *Any optional comment*

EXAMPLE w/o ''   'rdy;' / 'rdy;FightReady'

TIMEOUT

WT

<u>Stream broadcasted when Timeout time is running</u>

MAIN STREAM   to1;   Main stream for athlete 1

                         to2;   Main stream for athlete 2

                         to0;   Main stream for unidentified athlete

REQUIRED ARGUMENT   0:30   *Clock of the timeout time*

OPTIONAL ARGUMENT   ;start   *Operator action : starting the timeout*

                         ;stop   *Operator action : stopping the timeout*

                         ;corr   *Operator action : correcting the timeout*

                         ;stopEnd   Automatic action : end of timeout

EXAMPLES w/o ''   'to1;0:23;show' / 'to1;0:22' / 'to1;0:21;hide' / 'to2;0:45;show' / 'to2;0:44' / 'to2;0:44;hide' / 'to0;0:42'

HELLO

UWW / WT

<u>Stream broadcasted just after opening the connection/software</u>

MAIN STREAM   hel;

EXAMPLE w/o ''   *'hel;'*

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BYBYE

UWW / WT

Stream broadcasted just before closing the connection/software

MAIN STREAM   bye;

EXAMPLE w/o ''   *'bye;'*

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Packets must be broadcasted on the whole subnet ! Ex: class A 10.**255.255.255**, class B 172.17.**255.255**, class C 192.168.1.**255**

Data can be broadcasted on different ports for each mat / court but can share the same LAN

Each packet must be seperated by a Carriage Return {\r} and Line Feed {\n} so if packet paste each other on network, they still can be read

When changes happens, data are broadcasted when those changes happens.

When request is done from a client, the answer must go only to this client endpoint and not broadcasted on the whole subnet

Requests can be done on the same port used to broadcasted the data, or on another dedicated request port

Packet strings must be timmed before sending

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