

Appendix B. Abstract commands.

The abstract commands which are used for data exchange between Global Information System Fencing Competitions nodes are described in this article. These commands must be used during the description of all mechanisms of interaction between the nodes and must be implemented in any data exchange protocol between the nodes.

The abovementioned commands and their parameters are obligatory in any data exchange protocol but the use of the additional commands or parameters are acceptable.

It is necessary to define the following terms:

Event – is a sport activity which includes the competitions in one age group. For instance, the tournament “Fleuret de Saint-Petersbourg”, World Championships, World veterans fencing championships in one age group.

It is necessary to mention that sometimes the same event (for example, World veterans fencing championships) consists of several Event. Each age group is considered as a separate Event.

Competition – competitions in one kind of weapon. For instance, men’s foil individual event. Each Event generally, consists of no more than 12 competitions (without Mixed events).

Sometimes there is an event consisting of competitions on only one kind of weapon. For instance, “Beautiful Epee” which consists only of individual events on women’s epee. In this case Event is used – ‘Beautiful Epee’, consisting only of one competition – women’s epee individual event.

Among the parameters of different commands there are ***ID event, ID competitions, ID athlete***. These ID are natural numbers and defines competitions or an athlete accordingly. I.e. it cannot be two different event, two different competitions or two different athletes with the same ID.

Management of fencing competition is responsible for ID designation and for its uniqueness.

HELLO

HELLO command is used for the installation of connection between the nodes.

HELLO command parameters:

Sender – identifies the node which has sent a command;

Name of a piste – or the number/name of the piste (e.g. 1,2,10 RED, FINAL , e.t.c.) or ALL (which means all the pistes).

STOP

STOP command is used for disconnection of the previous connection.

STOP parameters.

Sender – identifies the node which has sent a command;

Name of a piste – or the number/name of the piste (e.g. 1,2,10 RED, FINAL , e.t.c.) or ALL (which means all the pistes).

BROKEN

BROKEN command is used for information of all the nodes that Scoring Machines Server has lost the connection with one of the piste.

BROKEN command parameters:

Name of a piste – or the number/name of the piste (e.g. 1,2,10 RED, FINAL , e.t.c.)

DENY

DENY command means that the node denies in executing of the received query.

DENY command parameters:

Reason of deny *Причина отказа* – a text no more than 64 symbols;

Query *Запрос* – query (command) on which the deny is given.

DISP

DISP command sets the parameters of the oncoming bout on the piste

DISP command parameters:

Name of a piste – or the number/name of the piste (e.g. 1,2,10 RED, FINAL , e.t.c.)

Kind of weapon – kind of weapon (individual/team events, men/women, epee/foil,sabre);

Competition stage – number of the pools round or direct elimination round

(TABLE)

Number of a group or a bout (1,2,3,...)

Time of the beginning of the match – a geographic time when the bout according to the schedule should start.

Right participant.

ID of participant - a unique athlete's ID in individual event (in team events it is either not used or the unique team's ID is used);

Name of the athlete – a full name of the athlete or the full name of the team;

Country code/club e.t.c– for example RUS;
ID of the member of the team – a unique ID of the member of the team who is on the piste (in team events);
Athlete's name– A full name of the athlete who is on the piste (in team events).

Left athlete:

ID of participant - a unique athlete's ID in individual event (in team events it is either not used or the unique team's ID is used);
Name of the athlete – a full name of the athlete or the full name of the team;
Country code/club e.t.c– for example RUS;
ID of the member of the team– a unique ID of the member of the team who is on the piste (in team events);
Athlete's name– A full name of the athlete who is on the piste (in team events).

BOUSTOP

BOUSTOP command sends the earlier sent DISP command отправляет ранее посланную команду DISP.

It is necessary to do it if the wrong DISP command has been sent or the bout is moved from one piste to another one.

BOUSTOP command parameters:

Number of the piste– number or name of the piste (e.g. 1,2,10 RED, FINAL, e.t.c)

INFO

INFO command sends the current apparatus condition on the piste. Besides, INFO command sends all the bout parameters earlier set by DISP

INFO command parameters:

Kind of weapon – kind of weapon (individual/team events, men/women, epee/foil,sabre);

Competition stage– number of the pools round or direct elimination round (TABLE)

Number of a group or a bout (1,2,3,...)

Round–number of the round in the bout 1-3 in individual or 1-9 in team events

Время–indication of the timer of the bout

Time of the beginning of the match – a geographic time when the bout according to the schedule should start.

Duration of the bout – duration of the round.

Condition of the bout – condition of the bout:

- Participants of the next round, the last names are not set;
- Participants of the next bouts are set but the bout is not activated;
- The bout is activated but the timer is not started or stopped;
- Timer of the bout is started;
- Pause timer (time break between the rounds) is started;
- Medical break timer is started;

- A confirmation of the end of the bout is requested (a referee has sent a request to end the bout but the answer from the server is not received yet)
- The bout is finished and deactivated (the next participants can be invited).

Referee's remote control – means that the time was started from the referee's remote control (a button is in the hand)

Priority Пpиoпyмeм – means that the priority has set (None 0 – to nobody, Right – priority has a right fencer, Left – priority has a Left fencer)

Reverse – means that the referee has swapped athletes(teams)

Call of the technician – means that the referee has called the technician on the piste.

Call of the doctor– means that the referee has called a doctor on the piste.

Call of the video supervisor – means that the referee has called a video supervisor on the piste.

Call of the TD representative – means that the referee has called a TD representative on the piste.

Right athlete:

Athlete's ID a unique athlete's ID in individual event (in team events it is either not used or the unique team's ID is used);

Name of the athlete – a full name of the athlete or the full name of the team;

Country code/club e.t.c– for example RUS;

ID of the member of the team члeнa кoмaнды – a unique ID of the member of the team who is on the piste (in team events);

Athlete's name – A full name of the athlete who is on the piste (in team events).

Score

Yellow card – means that a yellow card was shown

Number of red cards - 0-15

Black card – mens that a black card was shown.

The use of video – number of the used video replays.

Condition of the signal lamps

Left athlete:

Athlete's ID a unique athlete's ID in individual event (in team events it is either not used or the unique team's ID is used);

Name of the athlete – a full name of the athlete or the full name of the team;

Country code/club e.t.c– for example RUS;

ID of the member of the team – a unique ID of the member of the team who is on the piste (in team events);

Athlete's name – A full name of the athlete who is on the piste (in team events).

Счeм – score

Yellow card – means that a yellow card was shown

Number of red cards - 0-15

Black card – mens that a black card was shown.

The use of video – number of the used video replays.

Сocтoяниe cигнaльнoгo лaмп – condition of the signal lamps

ACK

ACK command confirms that the sent result is correct and the bout can be finished.
ACK command parameters – no

NAK

NAK command informs Master that the sent result is incorrect and the bout cannot be finished.
NAK command parameters – no

NEXT

NEXT command requests the next bout (in the poule, table or in teams). This command is activated by the referee with the use of Master interface which sends it to Scoring machines server.

The command can be activated only if the bout is not activated. Параметры команды NEXT:

Name of the piste – number or name of the piste (e.g., 1,2,10, RED, FINAL, e.t.c.)

PREV

NEXT command requests the next bout (in the poule, table or in teams). This command is activated by the referee with the use of Master interface which sends it to Scoring machines server.

The command can be activated only if the bout is not activated. Параметры команды NEXT:

Name of the piste – number or name of the piste (e.g., 1,2,10, RED, FINAL, e.t.c.)

TEAM

TEAM command is intended for sending the lists of the teams and the order of the athletes between the nodes.

TEAM command parameters:

Имя дорожки – number or name of the piste (e.g. 1,2,10, RED, FINAL e.t.c.);

Side – shows the side where the team is located (RIGHT/LEFT);

List of the members of the team – ID and full name (no more than 4 athletes are mentioned. The 4th athlete is a reserve).

Order of the appearance on the piste – numerical order of the athletes from the list. E.g. 3,1,2,1,3,2,1,2,3.

REPLACE

REPLACE command is intended to inform about the replacement on the piste. The present command is activated by the referee with the use of Master interface. The apparatus sends the present command to Scoring machines server, Command can be activated only when the timer of the bout is stopped.

TEAM command parameters:

Имя дорожки – number or name of the piste (e.g. 1,2,10, RED, FINAL e.t.c.);

Side – shows the side where the team is located (RIGHT/LEFT);

Nuber of the replaced athlete

UPDATED

UPDATED command is intended to inform all the Clients that the updates of the results has taken place on the Server of the results(XML -files).

UPDATED command parameters

ID of the competitions – a unique ID of the competitions; уникальный идентификатор соревнований;

Kind of weapon – kind of weapon (individual/teams, men/women, epee,foil,sabre);