

Dressage – Paperless Judging system

Features and Requirements

This document describes the necessary features and technical requirements set by the FEI for approval of Dressage Paperless Judging software.

Software offering the necessary features and matching the technical requirements can be presented to the FEI for approval. Only FEI approved Dressage Paperless Judging software is allowed to be used at FEI Events.

The details of the Dressage Paperless Judging software approval process are presented in a separate document.

Definition

A Dressage Paperless Judging software is a system allowing FEI Dressage and Para Dressage competitions to be scored without having to write down the movement marks on a FEI Dressage judge paper sheet.

The system is consequently the unique, trusted source for the competition scoring and results.

Requirements

Main principles

The Paperless Judging system will be made available to judges' scribes at the judges' positions through judges' devices. Accordingly, these judges' devices should be laptops or tablets.

The devices used must have their own, independent power source allowing them to remain operational for a minimum of two hours in case of a power outage.

The system will include a redundant central server installed on site which will receive the marks from the judges' devices.

At all times, judge paper sheets should be available at each judges' position in case the judges' devices cannot be used.

The system must allow the judges to digitally sign the final paperless scoresheet in order to confirm the score and to be able to start judging the next rider.

Network and connectivity

All the judges' devices and servers used by the Paperless Judging system must be connected by a cable to a local IP network (copper or optical fibre).

The system must not rely on any Wi-Fi or other wireless connection to operate.

The system must not rely on any internet connection (regardless if it is through cable, Wi-Fi or cellular 4G/5G) to operate.

By operate, we mean collecting the marks from the judges' devices, calculating the score on the central server and providing the calculated score to other systems, including but not limited to scoreboards, big screens and data feed for TV graphics.

The network through which the system operates must be isolated from internet by using a separate physical network, a VLAN or any other appropriate technology. In addition, this network must be dedicated to operating the system and shouldn't be used for other activities.

The judges' devices should never be connected to internet when in use at an event. Only the server receiving the marks from the judges' devices at each judges' position may be connected to internet if necessary. However, the recommended setup is to have one server dedicated to local operations and another server or computer dedicated to data exchange through internet.

Redundancy and installation

The central server receiving the marks from the judges' devices must be installed on-site and redundant.

The judges' devices used at judges' positions must be replaceable at all times by spare devices during the competition and in no more than two athlete performances, in case of failure.

Security

Each device must keep a timestamped local log with all actions performed on the scoring system, including all entered marks, movements, combinations and competitions. This local log should be readable at any time on each judges' device and the central server.

All the logs must be saved on the devices until the end of the period during which the results can be contested.

In addition, a copy of all the logs must be sent continuously to the central server and stored there during and after the competition.

All logs must be kept by the service provider during minimum 2 years. Longer retention periods may be required on demand.

All the data transmitted over the network must be encrypted; no data can transit in clear.

The recommended encryption algorithm is at least 256bit AES

Score, marks and details

All the information entered via the Paperless Judging system must be made available to the FEI in order to allow the FEI to provide the scoresheet to the athlete through his/her FEI account.

The information must include the marks per judge and per movement, the score per judge, the overall score, the judges' comments and any other relevant information as stated in the FEI format description document (to be published). The format in which the information must be provided is JSON, structured as per the FEI format description document (to be published)

The information for each athlete must be encrypted and transmitted to the FEI during the competition as soon as it is available.

According to article 133 of FEI General Regulations, the scoresheet of each athlete must be made available only via the FEI official website and should not be published or made available anywhere else by any other party. In addition, the marks, scores, comments and any other data related to the results collected by the service provider cannot be used for any publication, analysis, statistical calculation, comparison or any other usage.