MULTI-SPORT PRO · DISPLAY PLAYER

DISPLAY PLAYER MANUAL

How to set up, run and look after an LED scoreboard with Display Player, for venue operators and installers, including those who know ScoreBoards.com Designer, LedPlayer, ScoreApp and RocketEffects.

For Venue operators and installers **Software** Display Player (Multi-Sport Pro)

From Olympian LED · Scoreboards.com

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1 WHAT IS NEW, AND WHERE THE OLD TOOLS WENT

This manual is for the dealers and venue operators who run an LED board with **Display Player**, the new scoreboard software from Scoreboards.com. It is written for people who already know the old tools: **ScoreBoards.com Designer**, **LedPlayer**, **ScoreApp** and **RocketEffects**. You do not need to have read anything else. Every chapter says what to click and what you should then see.

> ABOUT THE PICTURES
>
> The pictures in this manual are taken from a demonstration player set up for a fictional school, Kestrel Point Academy. Your player carries your venue's name, sports and layouts. If a page on your player looks different from the picture, your build is newer or older than the one used here: the page name and the buttons' words are what to look for.

THE BIG CHANGE: ONE PROGRAM INSTEAD OF FOUR

With the old software a board was run by several programs at once: you drew layouts in Designer, played them with LedPlayer, scored with ScoreApp, and fired video and effects with RocketEffects. Display Player is **one program**. It draws the board on the LED screen *and* serves a set of control pages that you open in any web browser. There is nothing else to install on the booth PC to run a game.

- **Everything is a web page.** You run the board from a browser on the booth PC, or from a phone, tablet or second laptop on the same network (chapter 2).
- **Layouts are edited in the browser**, on the player itself. There is no separate designer program to open, and nothing to copy between PCs.
- **Your old layouts come across.** A Designer `.lay` file can be imported and played on a player built with the layout importer (ask for it when you order) (chapter 6).
- **It is licensed to one PC.** A build is made for your machine and runs fully licensed only there (chapter 13).
- **Your operator keeps the same job.** Choose a sport, pick a board, score the game, fire a clip. The buttons moved; the jobs did not.

WHERE EACH OLD TOOL WENT

OLD TOOL	WHAT YOU USED IT FOR	IN DISPLAY PLAYER
ScoreBoards.com **Designer**	Drawing layouts and saving them as `.lay` files.	The **Layouts** page and its built-in **layout editor** (chapter 7). Old `.lay` files are imported (chapter 6).
LedPlayer	Playing the layout on the LED screen; reading the scoreboard console on a COM port; placing the picture on the wall.	Display Player itself. The console is set up on the **Data** page (chapter 4); the picture's place on the wall on the **Screens** page (chapter 12).
ScoreApp	Running the game by hand: clock, score, period, down and distance.	The Scoreboards.com **scoring app** on tablets and phones, and the **Manual Control** panel on the **Data** page, which works from any browser (chapter 4).
RocketEffects	Firing video clips, stingers and animations over the board.	The **Show** page: one tile per clip (chapter 8), with the **Clip Editor** to trim them.

CAMERA WINDOWS

RocketEffects' camera buttons did not draw the camera themselves: each one loaded a preset on the LED processor, and the processor placed the camera picture over the board. Display Player has no button that loads a processor preset. If your venue brings up a camera that way, keep using the processor's own controls for it. A Display Player built for a capture card or NDI plays the camera itself, from a **Live sources** panel on the Show page; ask for it when you order if you need it. The table maps each old tool by the job it did: if your game night depends on something this manual does not mention, ask us before retiring the old program on that PC.

WORDS THAT CHANGED

OLD WORD	NEW WORD
Layout, `.lay` file	**Layout**. The same idea, stored as a `.layout.json` file on the player. Imported `.lay` files become these.
Value, field	**Data field**. Score, clock, period and so on, shown on the **Data** page under *Live Data*.
COM port setting	**Console input stream** (a protocol, a transport and a port), added on the **Data** page.
Ad group	**Ad Group (slideshow)**, one box that rotates through several images (chapter 9).
Effects, stingers	**Clips** on the **Show** page. A clip plays over the board, then the board returns.
Dongle or activation key	A **machine-locked build** (a dongle only on builds made for one), with a license check on the **Licenses** page (chapter 13).

2 STARTING THE PLAYER AND OPENING THE CONTROL PAGE

Display Player is one program. When it runs, two things exist: the **board window** (the picture sent to the LED screen) and the **control pages**, a small website the player serves to browsers. You start the program once; you do the work in a browser.

THE DESKTOP ICONS

A PC that still has the old software and the new software shows both sets of icons, usually on the Public desktop so every Windows user sees them:

ICON	WHAT IT IS
***<Your venue>* Player**	**New.** Starts Display Player at your board's size. The player is installed in `C:\ProgramData\Scoreboards.com\DisplayPlayer`.
***<Your venue>* Control**	**New.** Opens the control pages in the browser at `http://localhost:8080/`. Some installs put it in the Start menu as *Display Dashboard* instead.
ScoreBoards.com Designer	Old. The `.lay` layout designer.
Scoreboards.com Player	Old. LedPlayer.
Rocket Effects	Old. RocketEffects.

The names of the two new icons carry your venue's name, because the player is built for that customer. On another PC the words differ but the pair is the same: one *Player* icon to start it, one *Control* icon to open the pages.

> **DOES IT START BY ITSELF?**
> A player installed for a venue normally starts by itself when someone signs in to Windows. It does not start at the power button: a PC that stops at the Windows sign-in screen shows nothing on the board until someone signs in. Before the first game, restart the PC once and watch. If the board comes back by itself, you are set; if not, double-click the *Player* icon, and ask us to turn on automatic start.

STARTING THE PLAYER

1. Double-click the **Player** icon. A window appears that is the board's picture. If a second monitor or an LED processor is connected as a display, the window belongs there (set in chapter 12).

2. Wait a few seconds, then double-click the **Control** icon. The browser opens on the **Dashboard** page.

3. Look at the **Status** strip under the picture. It has three cells: **Data** (is a console feeding the board), **Layout** (what is on the board) and **Output** (which display it is going to). Green dots are good. *Data: Not connected* is normal until a console is wired up (chapter 4).

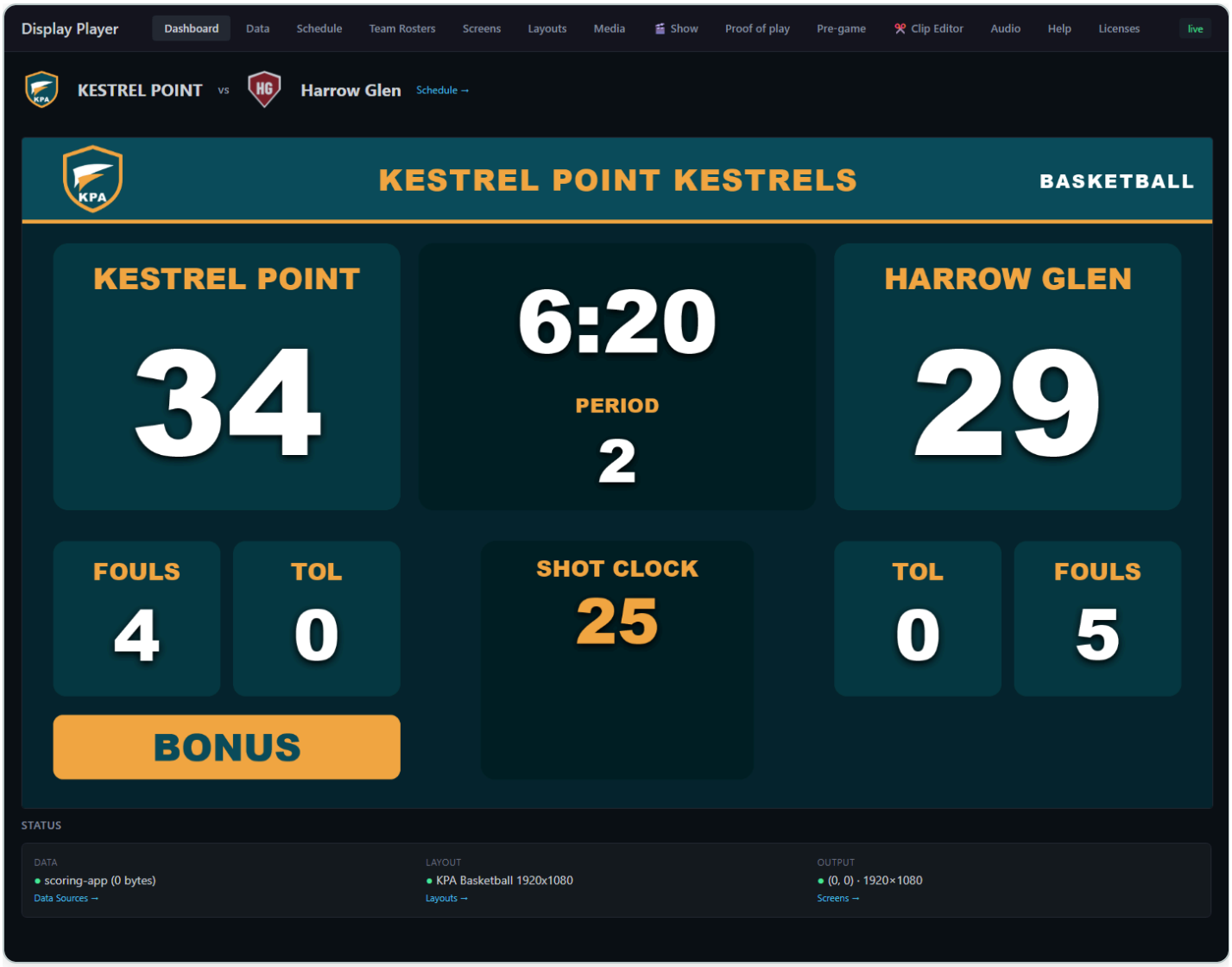
> **DO NOT CLOSE THE BOARD WINDOW**
>
> The board window *is* the picture on the LED screen. Closing it shows the Windows desktop on the board. To blank the board at the end of the night, use **Blank board** on the **Layouts** page instead; its own tooltip says why: a closed window shows the desktop on the video board.

OPENING THE CONTROL PAGE

From the booth PC itself

Use the **Control** icon, or type `http://localhost:8080/` in any browser on that PC. (`localhost` means "this computer".)

> **PORT 8080 OR 8081**
>
> Type `http://localhost:8080/`. Port 8080 is where tablets running the scoring app connect, so the player moves your browser on to the pages' own port, usually **8081**, and that is the address you then see. If that port is taken, the player uses the next free one (8082, 8083 and so on). When two players run on one PC (a demonstration build beside the venue's own, say), each has its own address. The **Licenses** page names who each player is licensed to: if it is not yours, you are talking to the other player.



The **Dashboard**: the live board, and the Status strip. The names of all the pages run along the top.

FROM A PHONE, TABLET OR ANOTHER COMPUTER

1. Put the phone or tablet on the **same network** as the booth PC (the same Wi-Fi, or a cable to the same router).

2. Find the booth PC's address: open **Licenses** and look under *System Information* for *Primary IP*, for example `192.168.1.50`.

3. In the phone's browser type `http://<that address>:8080/`, for example `http://192.168.1.50:8080/`.

4. Bookmark it. The booth PC's address can change if the router hands out a new one; the router can be told to keep it fixed ("reserve" it).

IF A PHONE CANNOT REACH THE PAGE

The usual causes are the network, not the player: guest and student Wi-Fi often isolates devices from each other. Windows Firewall on the booth PC must also let in both of the player's ports, 8080 and the pages' own port (usually 8081). If the phone reaches the player but the page then fails to load, it is the second port that is closed. See chapter 14.

THE ADDRESS IS OPEN

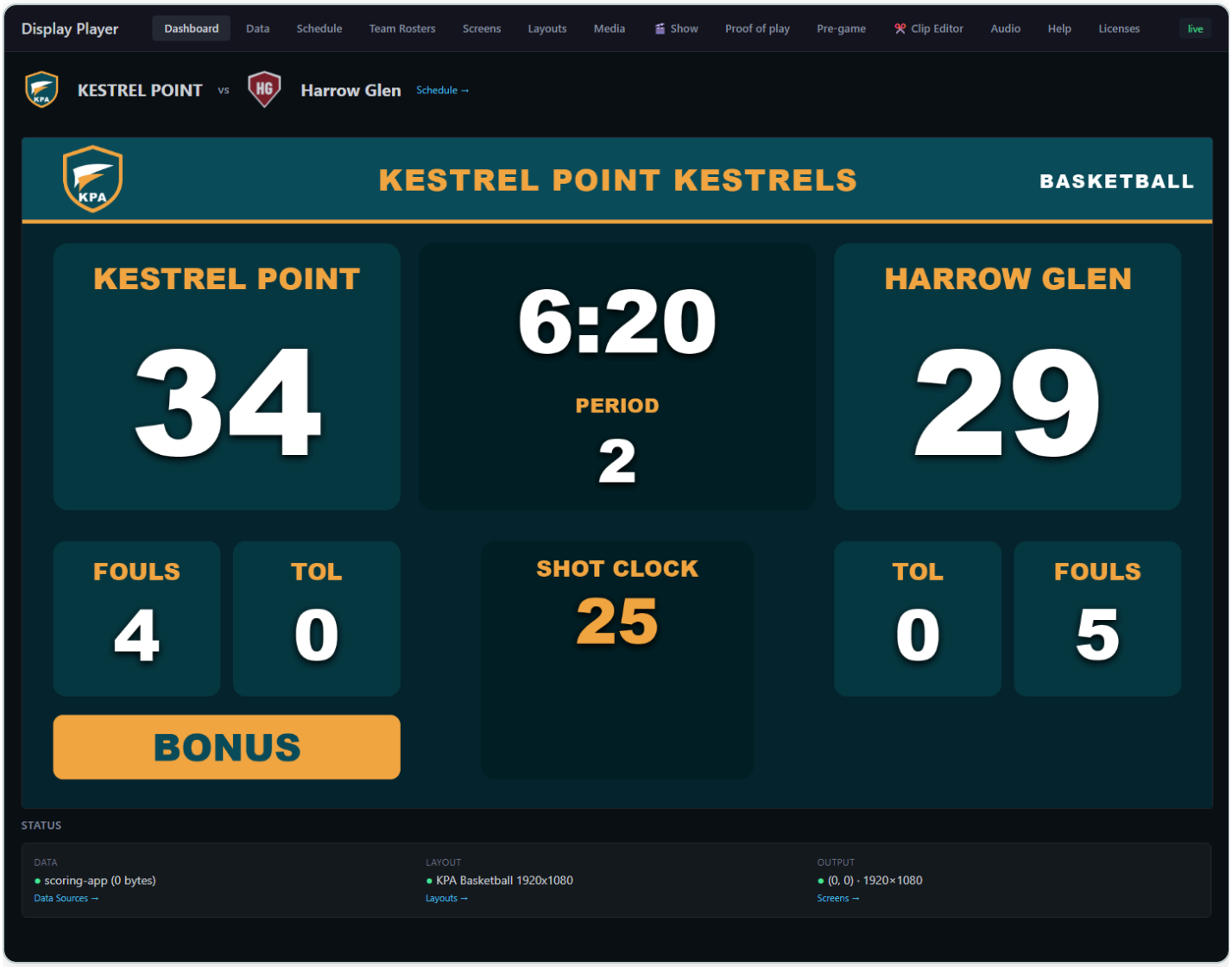
The control pages have no sign-in. Anyone who can reach the address on your network, a phone on the same Wi-Fi included, can change the board. Keep the booth PC off any network that guests or students use. The Pre-game page's **Lock for the game** (chapter 3) stops layouts and clips being edited or deleted while a game is on; it prevents accidents, it is not a password.

3 A TOUR OF EVERY PAGE

Every page has the same strip of links along the top: **Dashboard**, **Data**, **Schedule**, **Team Rosters**, **Screens**, **Layouts**, **Media**, **Show**, **Proof of play**, **Pre-game**, **Clip Editor**, **Audio**, **Help** and **Licenses**. The top left shows *Display Player* (a build sold through a dealer may show the dealer's name or logo there instead). This chapter takes them in that order and says what each is for. Later chapters go deeper on the ones you will use every game.

> **PAGES VARY A LITTLE BY BUILD**
>
> The player is built for each customer, so a page can be present or absent, or named differently, on another build. On a narrow screen the strip wraps onto a second row.

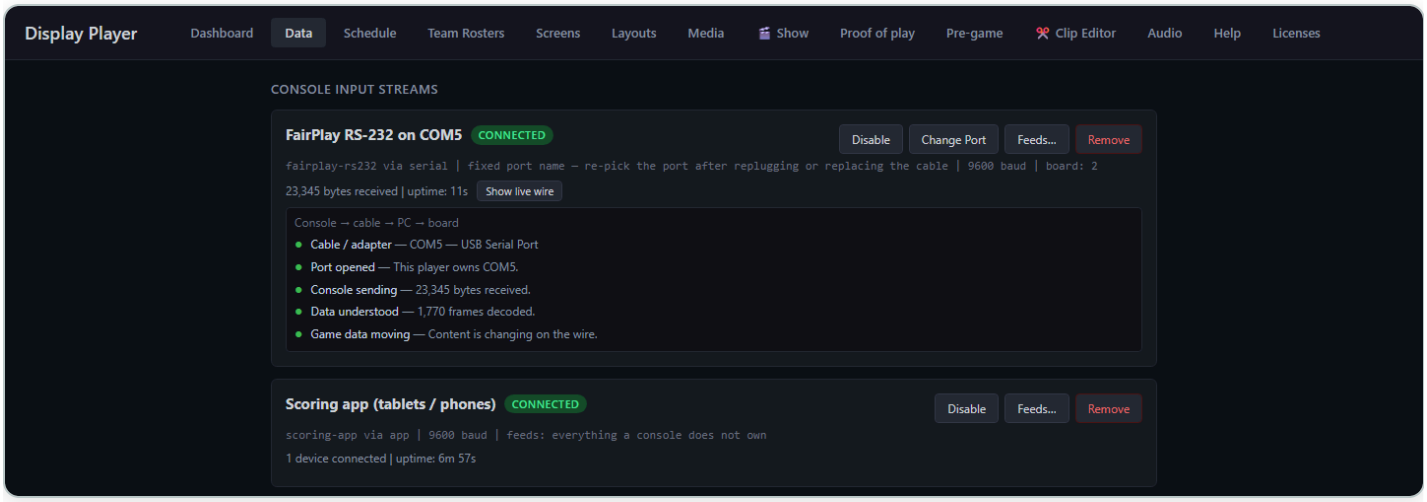
DASHBOARD: IS EVERYTHING ALRIGHT?



Dashboard. The live board, then *Data*, *Layout* and *Output*.

A live picture of what is on the LED screen right now, with a Status strip underneath. **Data** says whether a console or the scoring app is feeding the board (red *Not connected* until one is). **Layout** names the layout on the board. **Output** names the display it is going to and its size. The small *live* tag at the top right shows the page is receiving updates. The links under each cell jump to the page that fixes it.

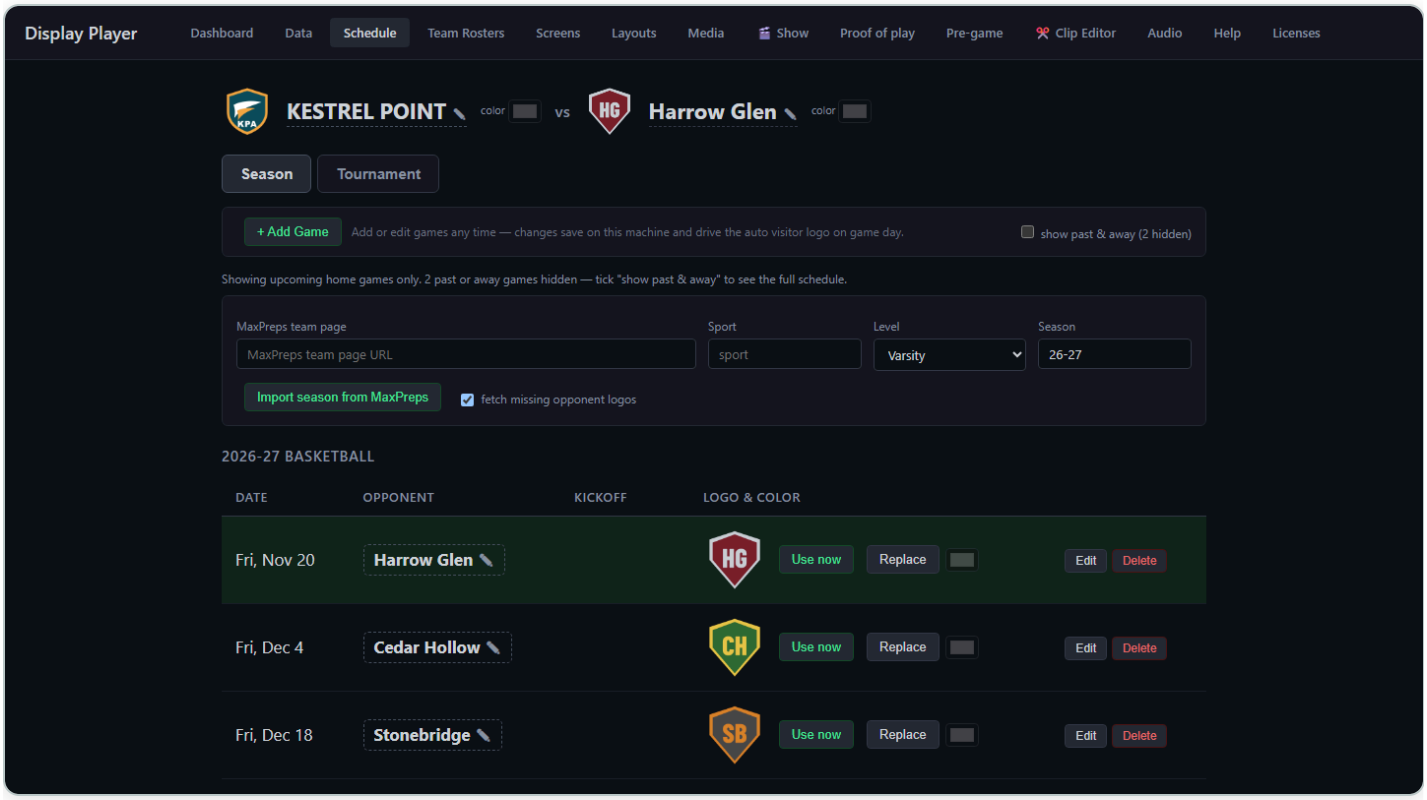
DATA: THE CONSOLE AND THE NUMBERS



Data. The list of console inputs at the top, then every live value.

Where the board gets its numbers. **Console Input Streams** lists each input (a console on a COM port, the wireless radio, the scoring app) with buttons to **Disable**, choose what it **Feeds...** or **Remove** it. **Live Data** is a table of every field the board can show, with its current value; **Hide empty** shortens it and the two **Export Values** buttons save it. **Add Console Input Stream** is the form that connects a new console (chapter 4). The page also gives the web address of a read-only feed of all the values, for other software.

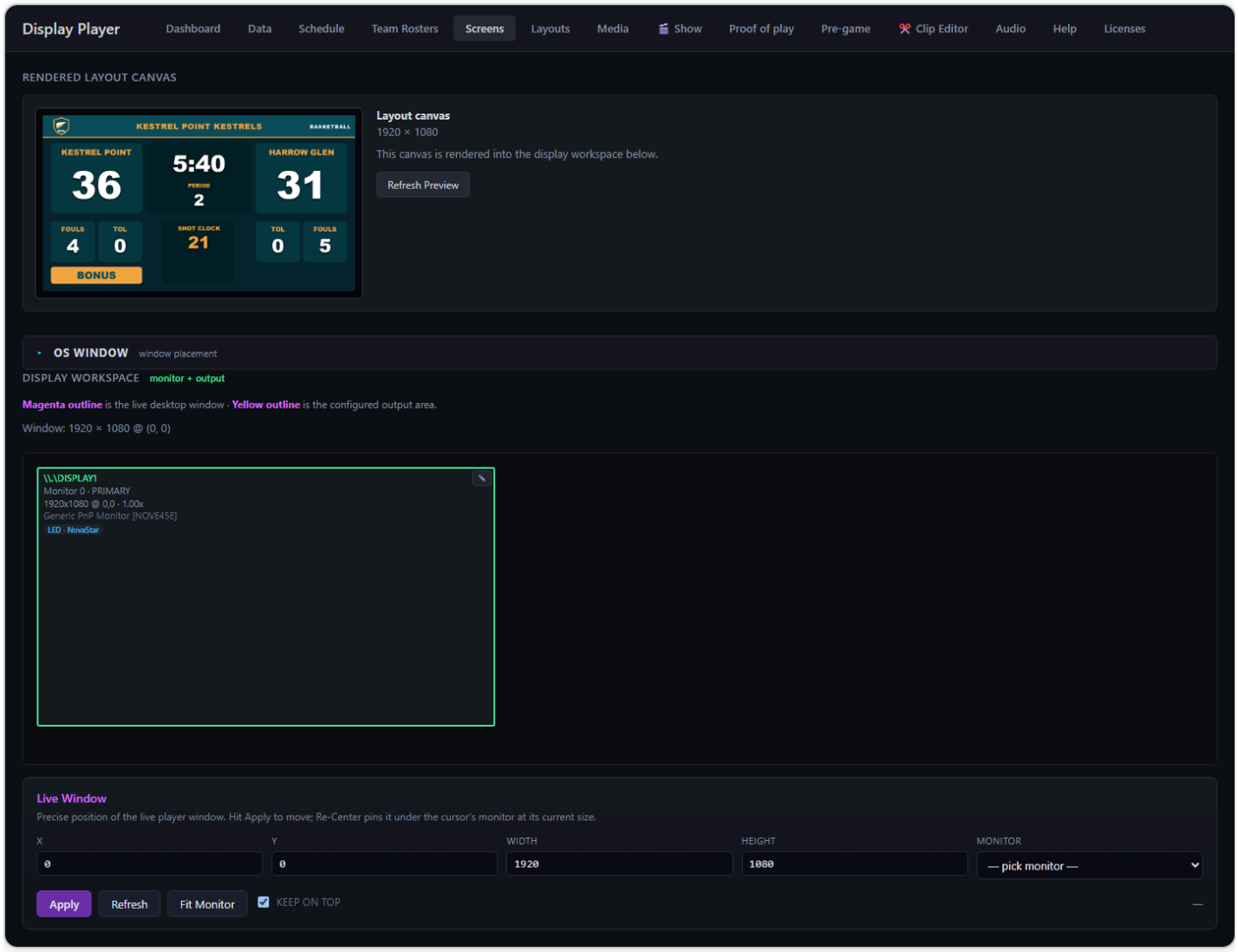
SCHEDULE AND TEAM ROSTERS



Schedule: Season and Tournament tabs, **+ Add Game**, and a MaxPreps import.

Schedule holds the season, so that on game day the visitor's name and logo can be picked from the list. **Team Rosters** holds the players' numbers and names. Both are covered in chapter 10.

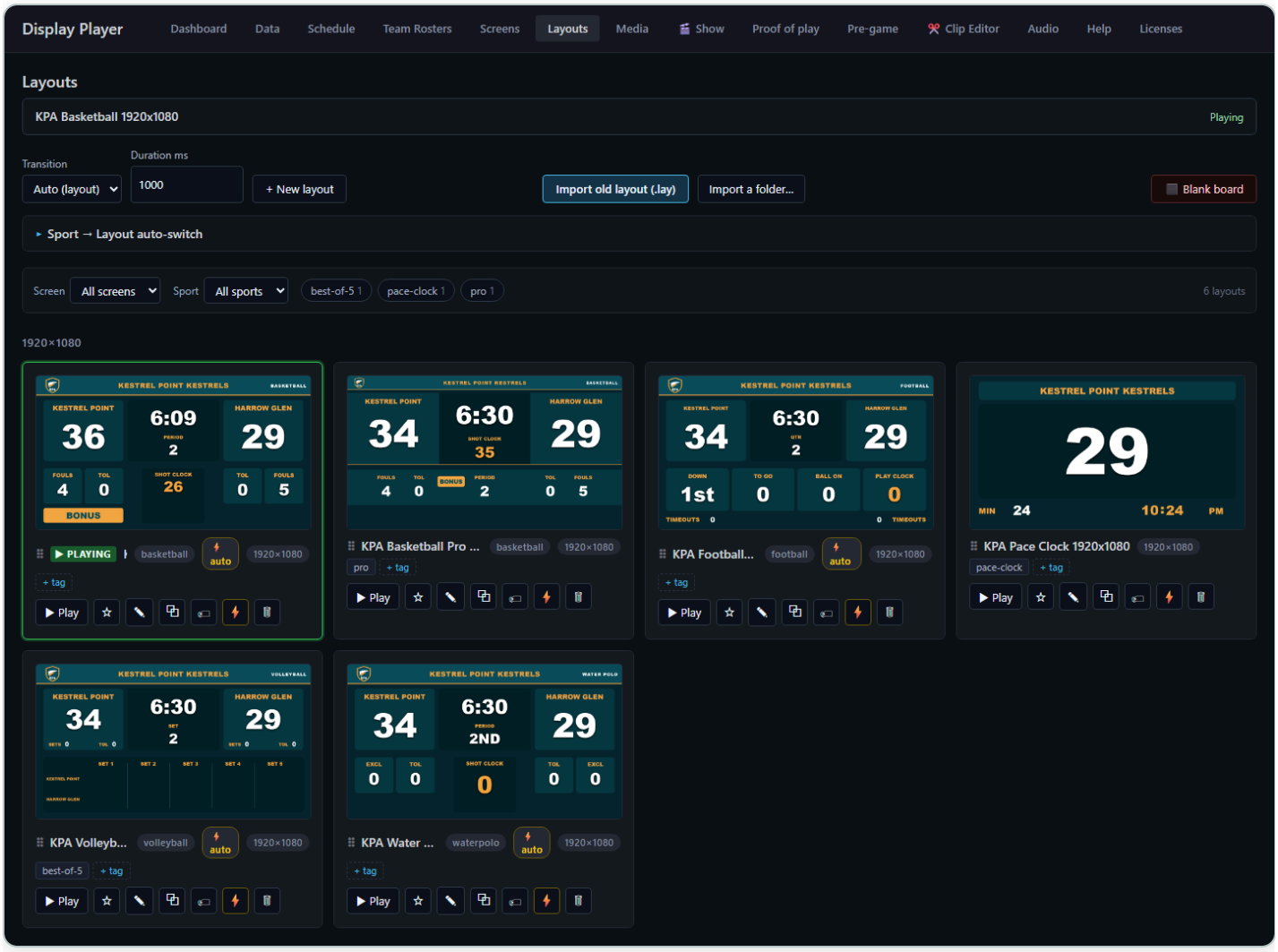
SCREENS: WHERE THE PICTURE GOES



Screens: the layout canvas, and the display workspace with each monitor drawn as a box.

Shows the size of the layout, every monitor Windows has (the LED processor appears as a monitor, labeled with its make), and where the player window sits on them. This is where the window is moved onto the LED screen. See chapter 12.

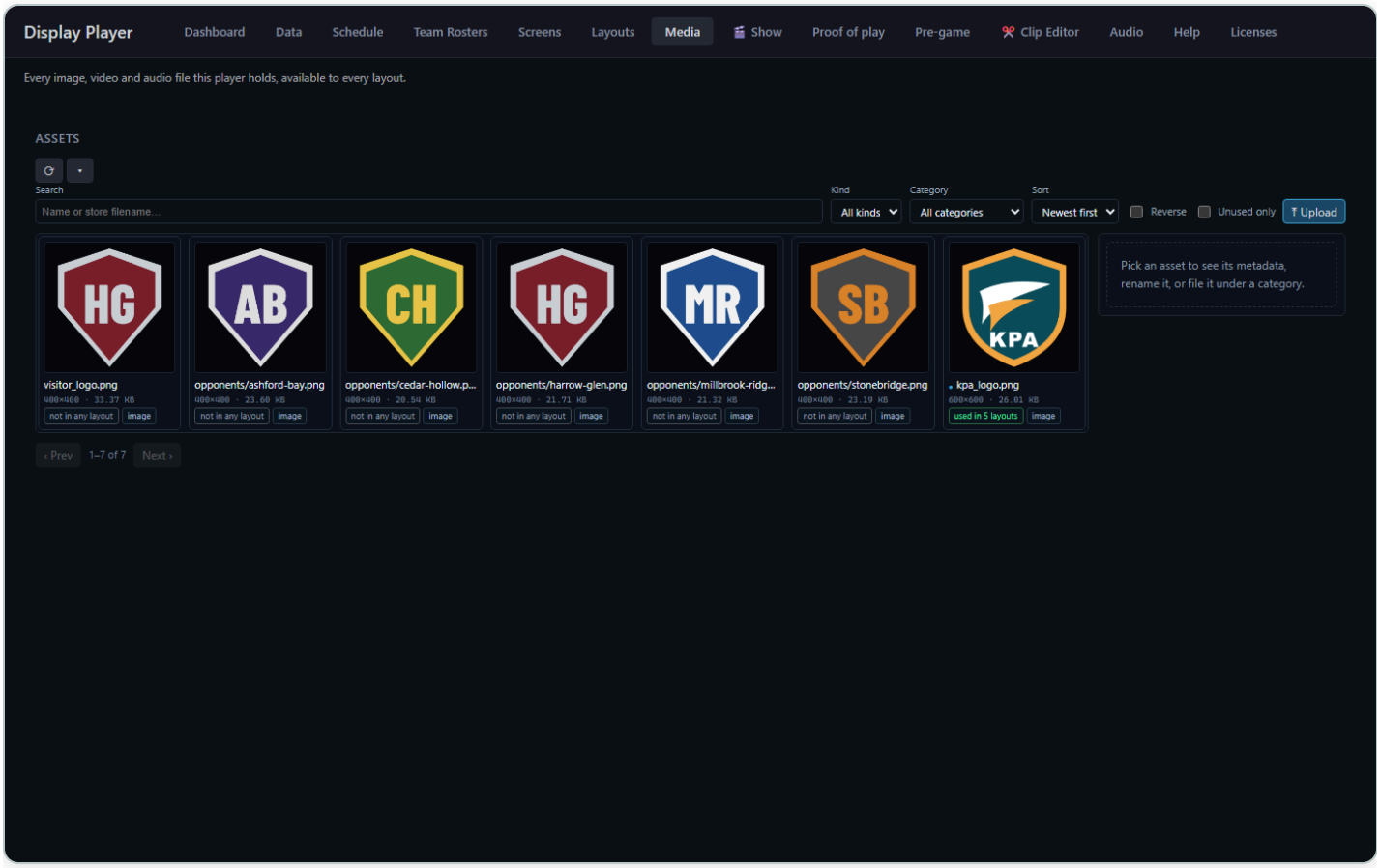
LAYOUTS: THE BOARDS YOU CAN PLAY



Layouts: one card per layout. The green outlined card is the one on the board now.

One card per layout, with a picture and buttons to play, edit, copy or delete it. **New layout** starts a blank one; **Import old layout (.lay)** and **Import a folder...** bring in your Designer layouts (chapter 6); **Blank board** draws solid black while keeping the window up. *Sport → Layout auto-switch* chooses the board that loads when the sport changes. See chapter 5 and chapter 7.

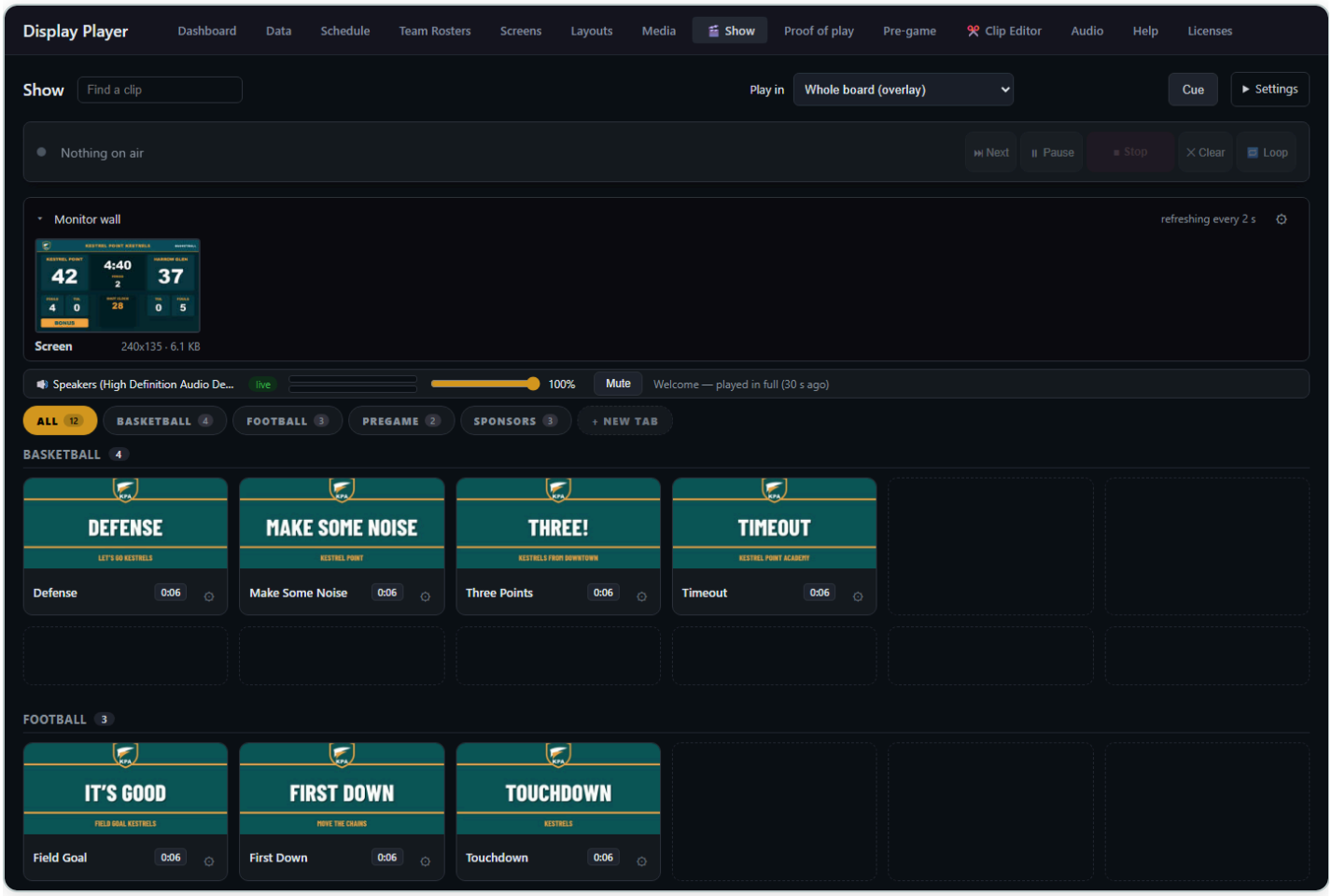
MEDIA: EVERY PICTURE, VIDEO AND SOUND



Media: the library of files the layouts use, with search, filters and **Upload**.

The library of every image, video and audio file on the player. Each tile says how big it is and *used in N layouts*; **Unused only** finds files nothing uses. Pick a tile to see its details, rename it or file it under a category. See chapter 8.

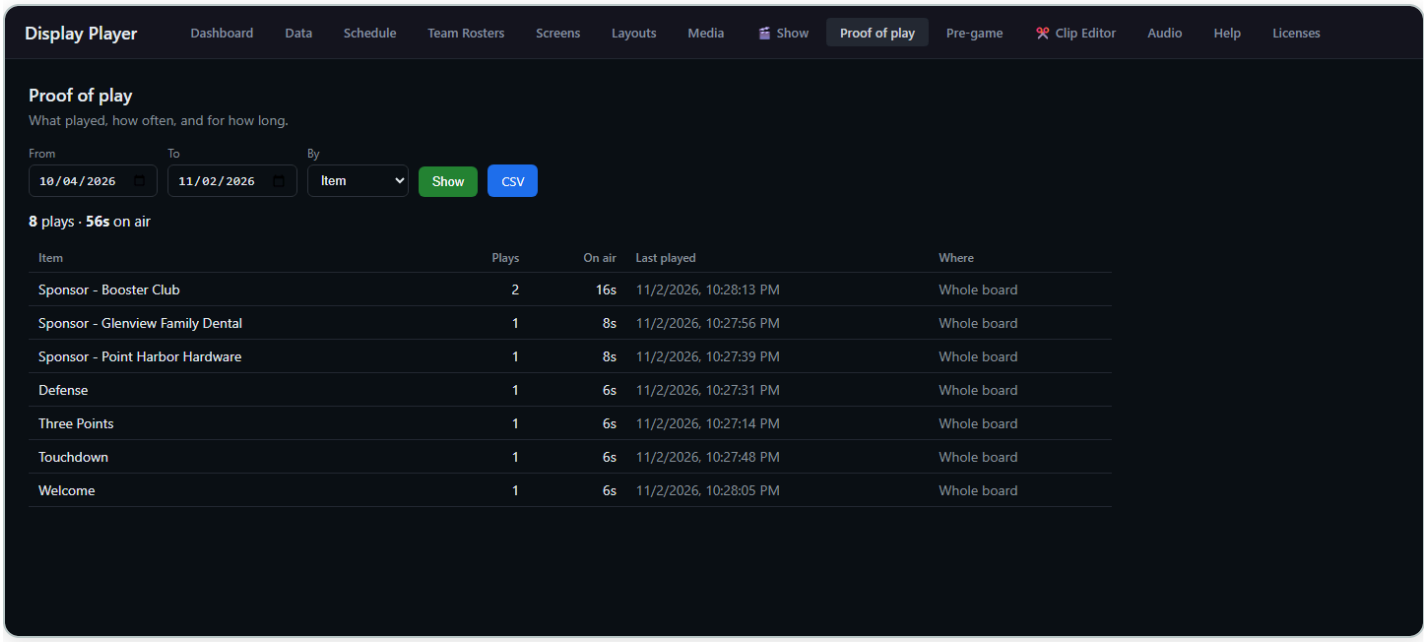
SHOW: FIRE CLIPS DURING THE GAME



Show: sound bar, tabs (*All*, *Basketball*, *Football*, *Pregame*) and one tile per clip.

The page the operator keeps open all game. One tile per clip, in tabs. Tap a tile and the clip plays over the board; when it ends the board comes back. The bar above the tiles holds the sound output, volume and **Mute**. **Add a clip** at the bottom brings in new ones. See chapter 8.

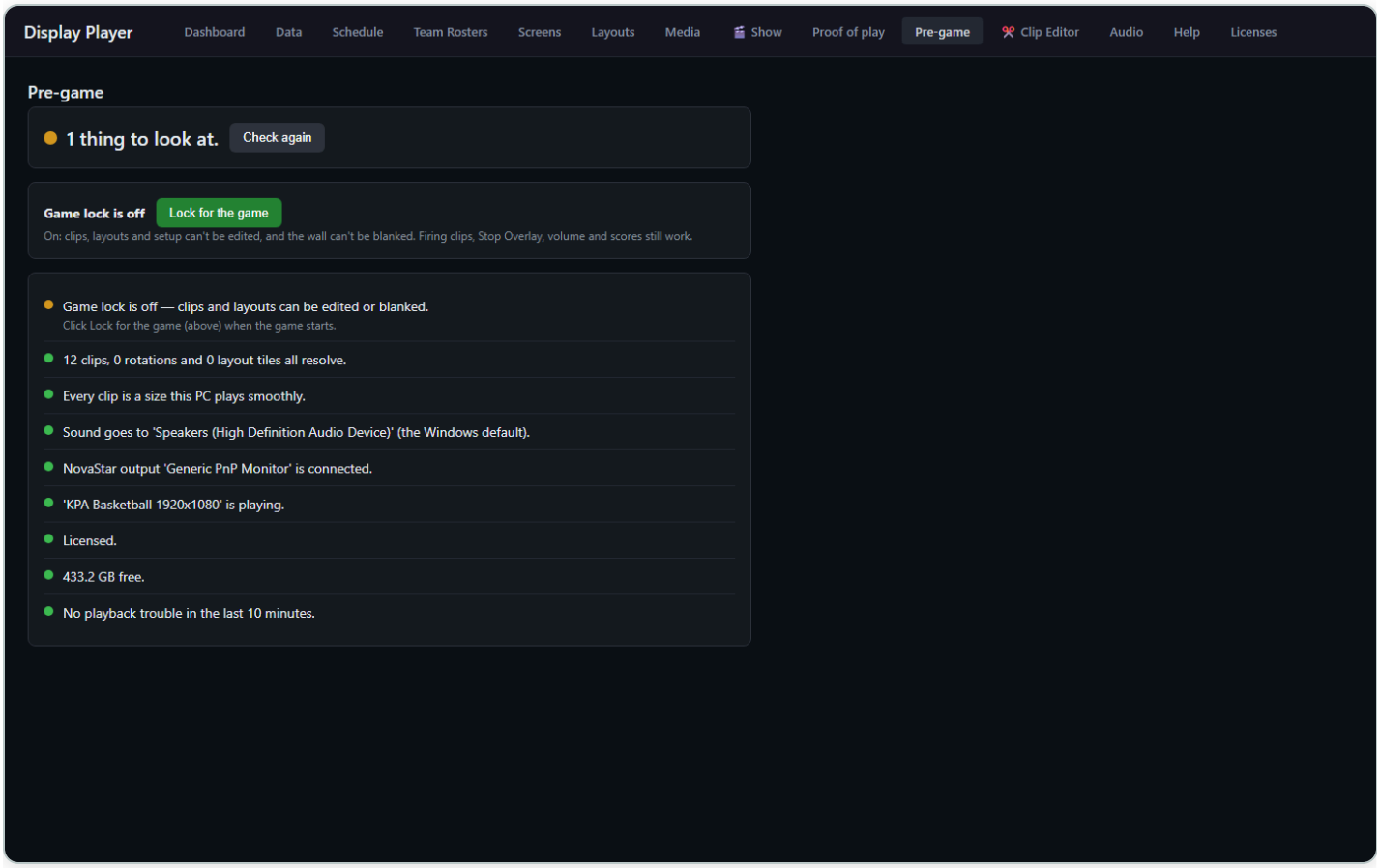
PROOF OF PLAY: WHAT RAN, AND FOR HOW LONG



Proof of play: choose a date range and how to group, then **Show**, or save a **CSV**.

A record of what played on the board, how often and for how long, which can be grouped *By* sponsor, item or day, or listed as every play. Meant for showing a sponsor what they got (chapter 9).

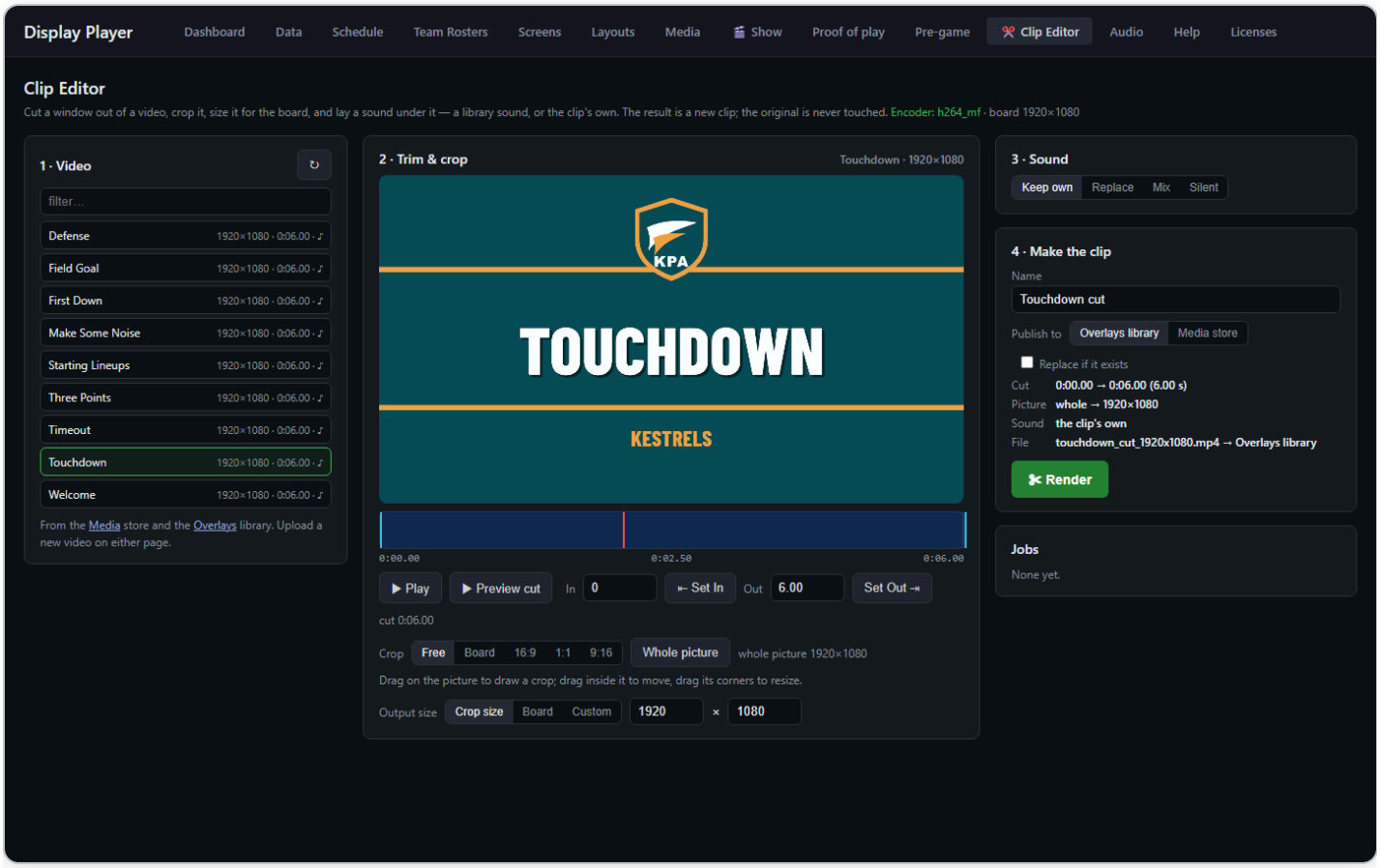
PRE-GAME: THE CHECKLIST BEFORE THE DOORS OPEN



Pre-game: colored lines for things to look at, green for things that are fine, and the **Lock for the game** button.

Checks the clips, the sound, the output, the license and the free disk space, and says in plain words what to fix. Yellow means look at it, green means fine. The **Lock for the game** button switches on **game lock**: while it is on, clips, layouts and setup cannot be edited and the board cannot be blanked, but firing clips, **Stop Overlay**, volume and scores still work. Press it when the game starts, and unlock it afterwards to make changes. When a clip is bigger than the PC's graphics can play smoothly it says so ("too heavy for this PC to decode smoothly") and says to convert it on the Show page.

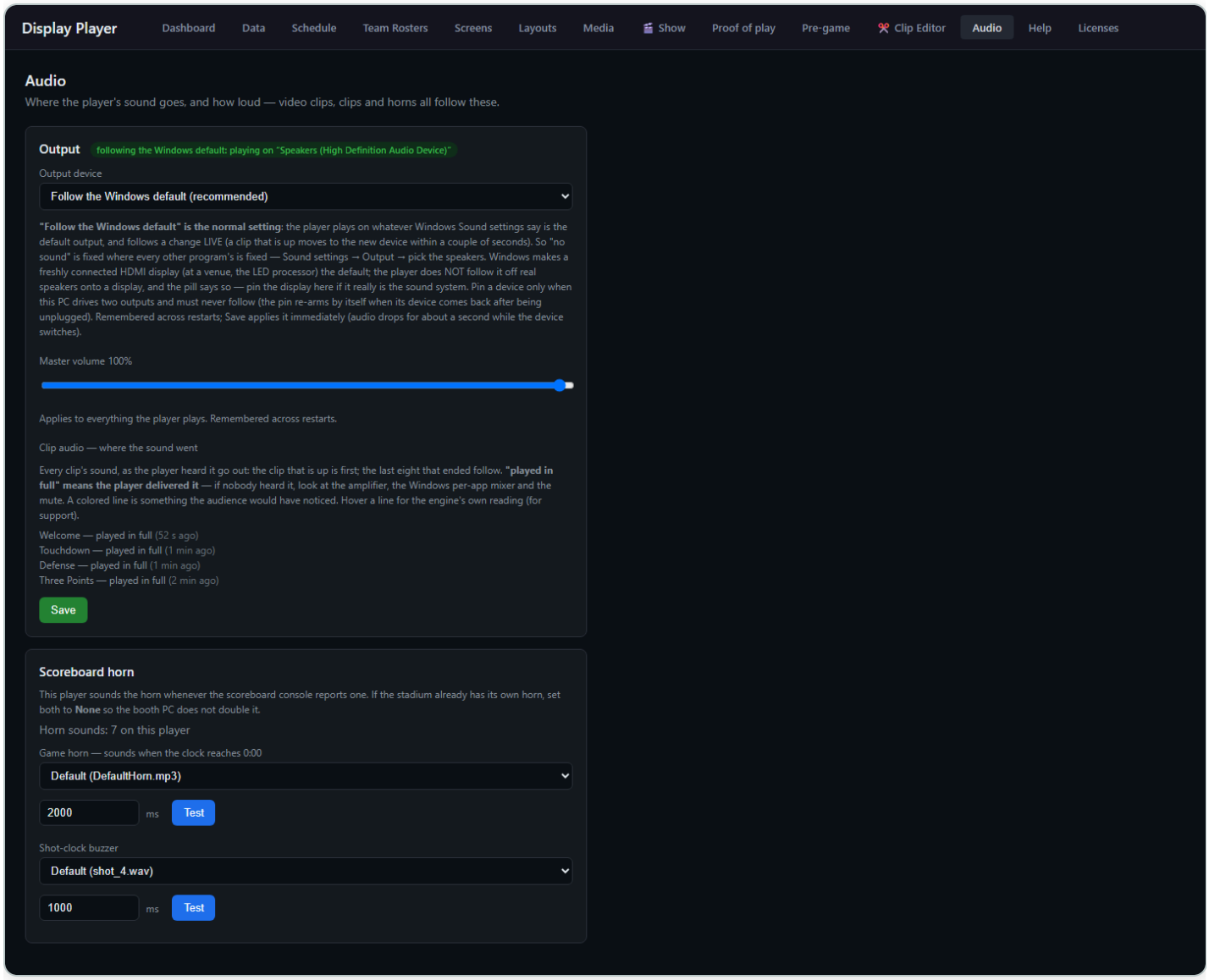
CLIP EDITOR: TRIM A VIDEO



Clip Editor in four steps: pick the video, trim and crop, choose the sound, then **Render**.

Cuts a window out of a video, crops it, sizes it for the board and can lay a sound under it. The result is a **new** clip; the original is never touched. See chapter 8.

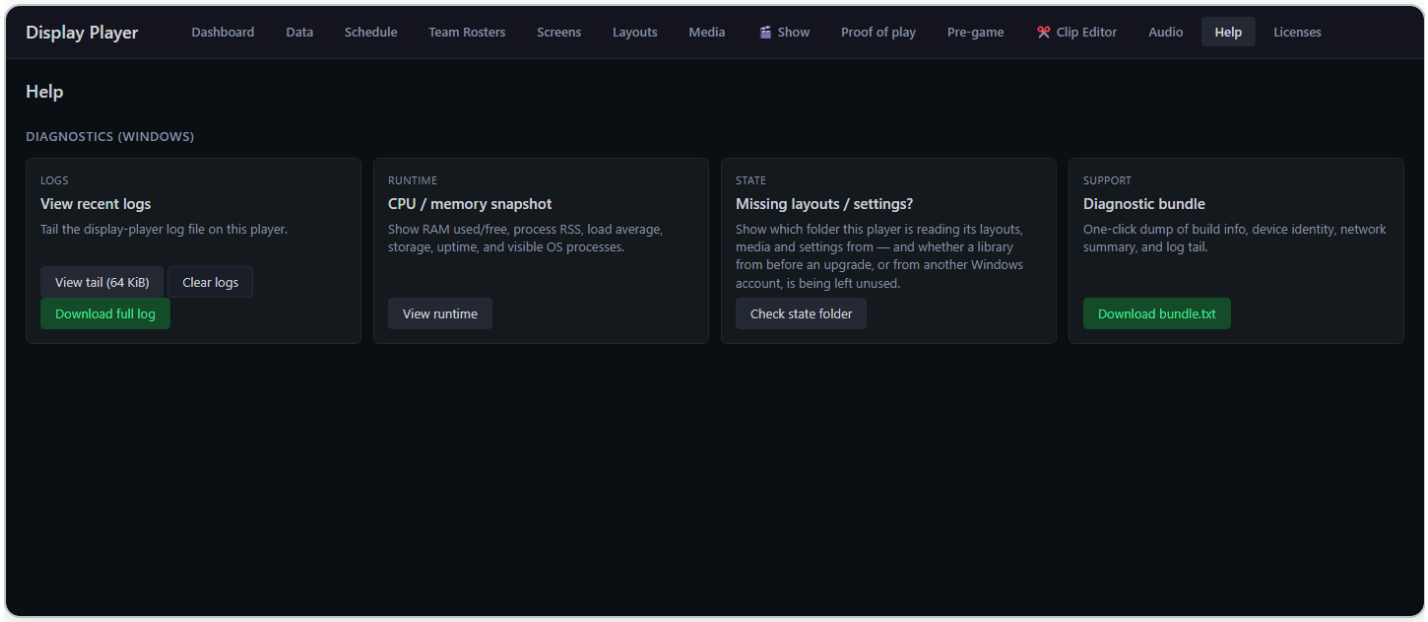
AUDIO: WHERE THE SOUND COMES OUT



Audio: output device, master volume and the scoreboard horn.

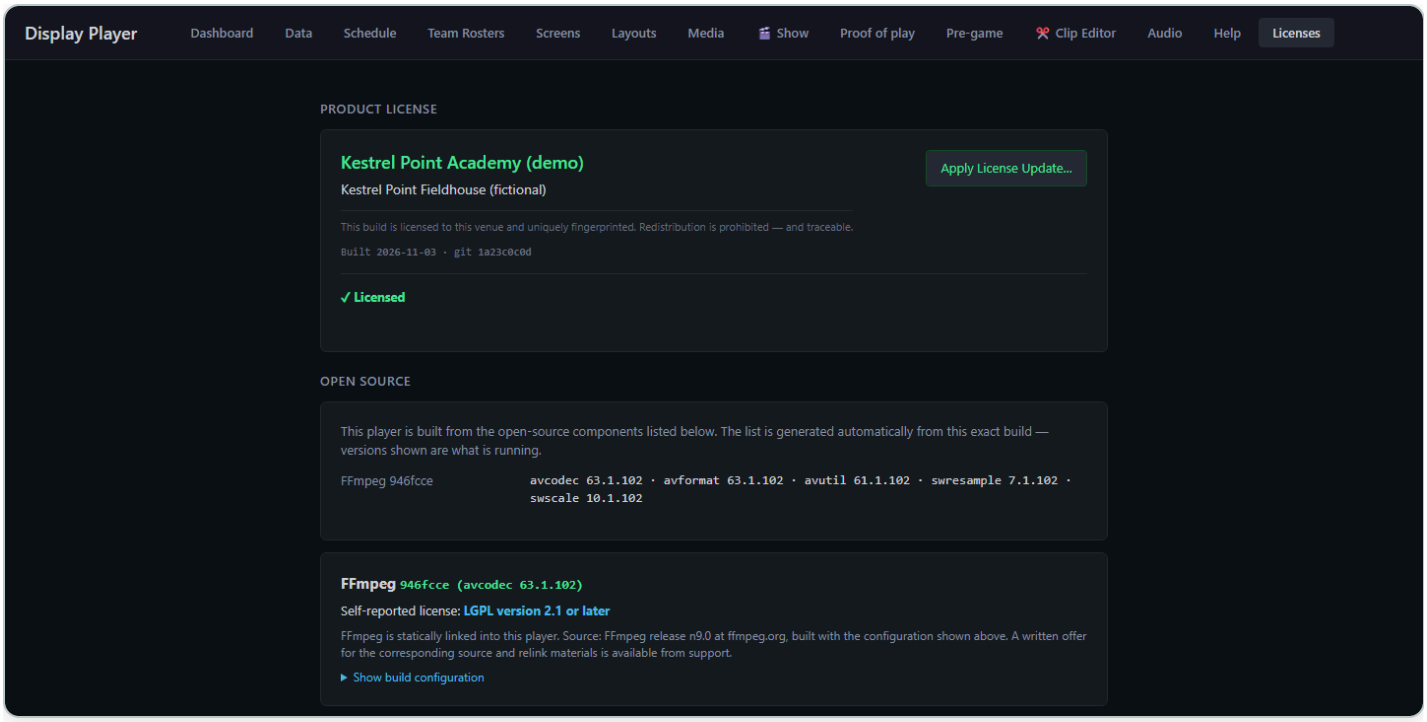
Chooses where clips and horns are heard and how loud. See chapter 11.

HELP AND LICENSES



Help: the diagnostic tools support asks for.

Help has the diagnostic tools (on a build sold through a dealer it also names **your dealer**): view recent logs (**View tail**, **Download full log**), a CPU and memory snapshot, a *Missing layouts / settings?* check that shows which folder the player is reading from, and a **Diagnostic bundle** download. **Licenses** shows who the build is licensed to and the PC's identity (chapter 13).



Licenses: the build's license holder and its status.

4 CONNECTING A CONSOLE AND CHECKING THE DATA

The board gets its score, clock and period from a **console input stream**. For a Fair-Play board that is the console itself: an **MP-70** on a serial cable, or an **MP-80** whose wireless radio is received on a COM port. You set the stream up once on the **Data** page; the player reopens it every time it starts.

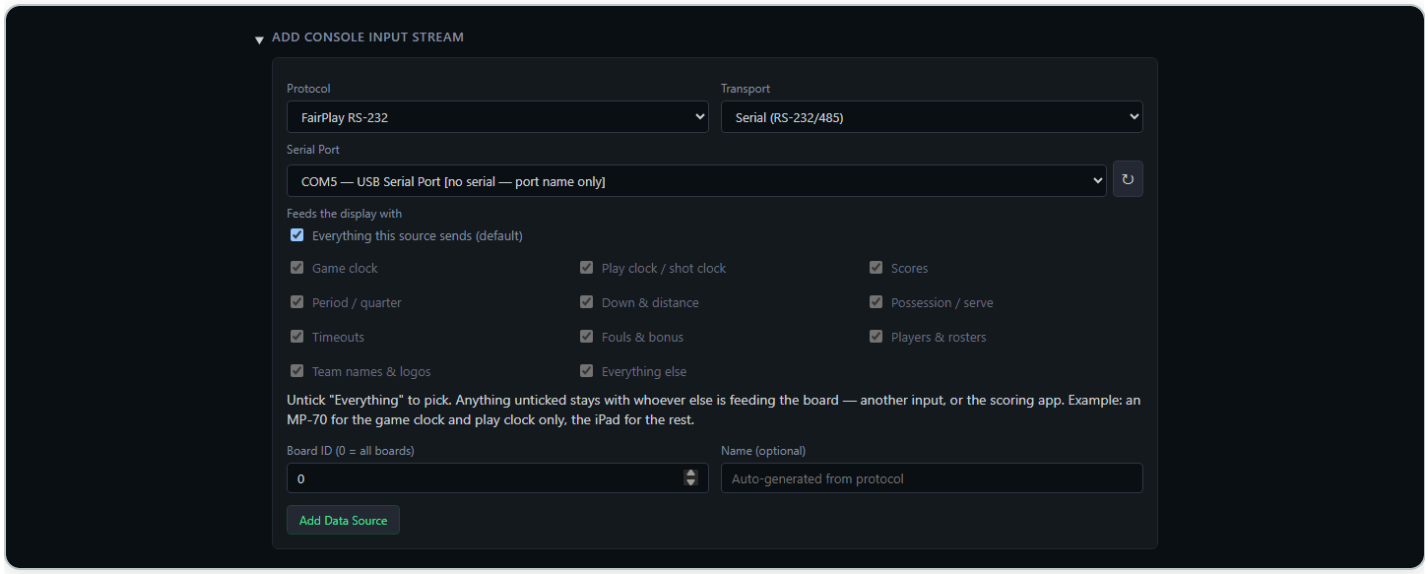
WHAT YOU NEED

- The console, switched on, with a serial cable (MP-70) or the radio receiver (MP-80) between it and the booth PC.
- A **USB serial adapter** if the PC has no serial port. Windows gives each adapter a COM number (COM3, COM5…). A typical one is listed as *COM5, USB Serial Port (FTDI)*.

> **A DIFFERENT USB SOCKET CAN BE A DIFFERENT COM PORT**
> An adapter with no serial number of its own gets a new COM number when it is moved to another USB socket, and the stream stops finding it. The player's port list says *[no serial — port name only]* for such an adapter. Pick the socket, leave the adapter in it, and label the socket.

> **BEWARE BLUETOOTH COM PORTS**
> Windows can create a COM port for a paired Bluetooth device. A console cannot arrive on one. If a COM number appears that you do not recognize, it is probably not your adapter; unplug the adapter and see which number disappears.

ADDING THE STREAM



The **Add Console Input Stream** form, opened, on its defaults.

1. Open **Data** and click **Add Console Input Stream** at the bottom to open the form.
2. **Protocol.** Pick the one that matches your console (the table below).
3. **Transport.** For a console on a cable or a radio receiver this is *Serial (RS-232/485)*, which the protocol selects for you.
4. **Serial Port.** Pick the COM port of your adapter. The ↻ button scans again after you plug something in.
5. **Baud Rate.** Leave it. For the Fair-Play protocols it is fixed by the protocol (see the table) and the box is not offered.
6. **Feeds the display with.** Leave *Everything this source sends* ticked, unless two inputs share a board (below).
7. **Board ID** 0 means all boards. **Name** is optional.
8. Click **Add Data Source**.

PROTOCOL IN THE LIST	USE IT FOR	DEFAULT
FairPlay RS-232	A Fair-Play console on an RS-232 cable: an MP-70, through a USB serial adapter to the PC.	Serial, 9600 baud, no parity (fixed)
FairPlay Board (RS-485)	A Fair-Play board data feed.	Serial, 57600 baud (fixed)
FairPlay MP-80 (Wireless)	An MP-80 console, received over its radio on a COM port.	Serial, 57600 baud (fixed)
Raw (Passthrough)	Sends the bytes through undecoded; for engineers.	Serial, 9600 baud, adjustable
Scoring app	The Scoreboards.com scoring app on tablets and phones, over the network.	Added by the player when it is first set up

Use *FairPlay RS-232* for a wired MP-70 and *FairPlay MP-80 (Wireless)* for an MP-80's radio receiver, then use the checks below to confirm that data is arriving. The list shows the protocols your player was built with, so a player built for another console shows that console's name. The *Transport* choices (*Serial (RS-232/485)*, *UDP Listener*, *TCP Client*, *TCP Server*, *File / Mounted Share* and others) are for consoles and timing systems that send over the network; a Fair-Play console uses Serial.

TWO INPUTS ON ONE BOARD

Under *Feeds the display with*, untick *Everything* to pick which groups of values an input owns: *Game clock*, *Play clock / shot clock*, *Scores*, *Period / quarter*, *Down & distance*, *Possession / serve*, *Timeouts*, *Fouls & bonus*, *Players & rosters*, *Team names & logos*, *Everything else* (the list offers only what that input can send). Anything unticked stays with whoever else feeds the board. The page's own example: an MP-70 for the game clock and play clock only, and an iPad (the scoring app) for the rest. A stream's **Feeds...** button changes this later.

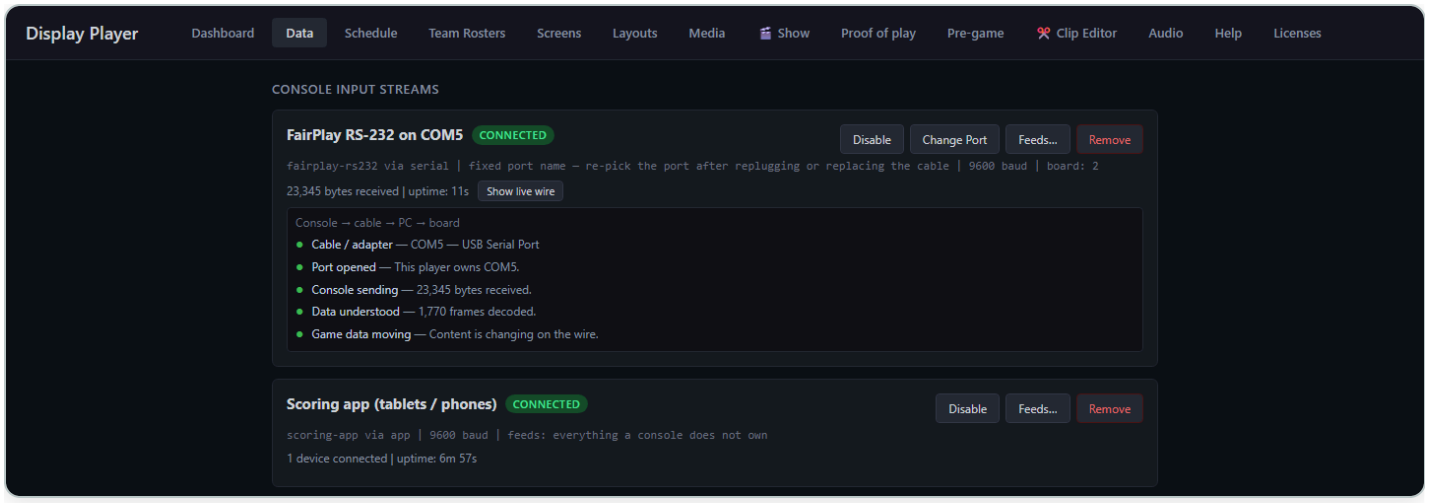
IS DATA ARRIVING? CHECK THE CHAIN

A console feed is a chain, and any link can be the broken one. The page shows each link on its own line for a serial stream, in this order, and says what to do when one is red:

#	LINE	GREEN MEANS	IF IT IS RED
1	**`Cable / adapter`**	The COM port is on this PC now.	The adapter is unplugged or has changed COM number. Pick the port again.
2	**`Port opened`**	This player owns the port.	Another program holds it: the old LedPlayer, a console utility, or a second copy of the player. Close it, or press **Diagnose** to see which.
3	**`Console sending`**	Bytes are arriving.	Nothing arrives. Check the lead at the console end and that the console's data output is on, then restart the console and start a new game.
4	**`Data understood`**	Frames are decoding.	Bytes arrive but nothing decodes: the wrong protocol or the wrong baud. **Show live wire** shows what is arriving.
5	**`Game data moving`**	The content is changing on the wire.	The console is sending an empty board, is frozen on one picture, or has stopped; or the line is noise (no power at the console's interface box, or a loose cable). Restart the console and start a new game.

Each red line says on the page what to check, in the words of the column on the right. The picture below shows all five lines green for a *FairPlay RS-232* console.

> **GREEN COUNTERS ARE NOT PROOF**
>
> "Connected" and a growing byte count prove only that the cable is alive. The real test is that **the numbers on the board change when the game changes**. Start the clock on the console and watch the **Dashboard** and the *Live Data* table on the **Data** page: the `clock` value must run, and a score pressed on the console must show up in `home_score`. A console that is switched on but frozen sends perfectly healthy bytes of one unchanging picture.



The console input streams at the top of the Data page: a *FairPlay RS-232* console on COM5 with its five check lines green, and the scoring app with a tablet connected. Below them the page lists the boards they feed, then the *Live Data* table with every field and its value.

The same page also shows the stream's own line: its name, *STARTING* or connected, the baud, what it feeds, and how many devices are connected and for how long.

SCORING BY HAND: TABLET, PHONE, OR THE MANUAL PANEL

The **Scoring app** stream is listed on a new player. A tablet or phone running the Scoreboards.com scoring app connects to the player over the network and scores the game; the stream's line then counts it (*1 device connected*).

For when the console dies, the Data page has a **Manual Control** panel. Press **Take Over**: the panel is marked *MANUAL* and says *Manual mode — incoming sources cannot overwrite the board.* Then run the game from the panel: the clock (Start, −1:00, −0:01, +0:01, +1:00, Set), each team's score (+1, +2, +3, +6, −1, Set), the period (◀ Prev, Next ▶, Pregame, Halftime, Final), the timeouts, and down and distance for football. Press **Release Takeover** to give the board back to the console. The panel appears once the console or scoring app has reported a clock sport such as basketball, football or volleyball, and stays hidden for baseball.

THE DATA FEED FOR OTHER SOFTWARE

At the bottom of **Data**, *Integrate — Live Data Feed (JSON)* gives two addresses, `/api/data-map` and `/api/data-map/export`, that return every live field as JSON for broadcast graphics or an OBS overlay. Read only, no set-up.

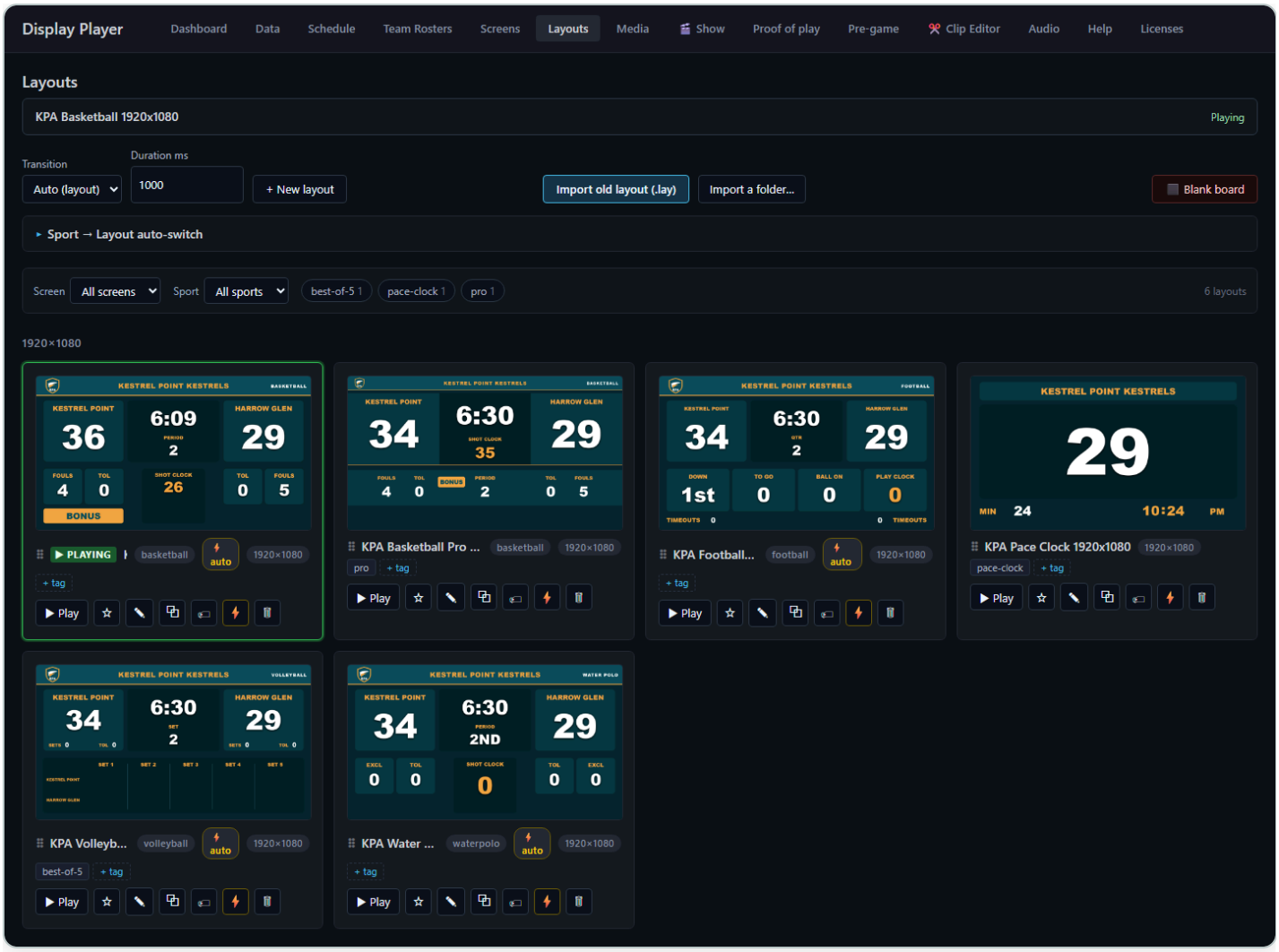
5 CHOOSING THE SPORT AND LAYOUT, AND RUNNING A GAME

A game night has three decisions: **which sport**, **which layout** (the design on the board), and **what feeds it** (chapter 4). This chapter is the first two, and then the routine for running the game.

WHAT THE BUTTONS ON A LAYOUT CARD DO

Open **Layouts**. Each card has a picture, the layout's name, its size, and a row of buttons. The wording below is the tooltip each button carries on the page.

BUTTON	WHAT IT DOES
▶ `Play`	Switch the display to this layout. The score, clock and other values carry over. A green *PLAYING* tag and a green outline mark the layout on the board now.
☆ `star`	**Boot default**: the layout that plays when the player starts. It fills in on the layout that has it. Playing a layout does *not* make it the default.
✎ `pencil`	Edit the layout (chapter 7). If a layout cannot be edited (some imported or converted ones), the button says why in its tooltip.
`Duplicate`	Make an editable copy so you can try a change without risking the original.
`+ tag`	Tag the layout with the sport it is for. The **Sport** filter and the sport switch both read it. You can add other tags (for example *best-of-5*, *logos*) to tell a sport's boards apart; tags in view are offered as filters at the top.
⚡ `lightning`	The board the display loads *by itself* when the sport switches to this layout's sport. It shows as an orange *auto* tag.
`Delete`	Remove the layout from this player.



The Layouts page. The **Screen** and **Sport** filters sit above the cards; cards are grouped by size.

At the top of the page, **Transition** and **Duration ms** choose how one layout changes into the next (*Auto (layout)* lets each layout say). Cards can be dragged to reorder.

CHOOSING THE SPORT

The player follows the sport. When the console or the scoring app says the sport has changed (a Fair-Play console reports the sport it is running), the player loads the layout set for that sport. You decide which layout that is:

1. On each layout, set its sport with the **+ tag** / sport tag.
2. On the one layout you want for that sport, click ⚡. There is one per sport *per screen size*.

3. Or open *Sport → Layout auto-switch* at the top of the page, choose a layout for each sport, and click **Save mapping**. *Automatic* means "no fixed choice": the display picks the ⚡ layout for that sport or, when none is marked, the first layout tagged with the sport.

> **IN THE PICTURES**
> The demonstration player carries a board for each sport for the fictional Kestrel Point Academy (basketball, football, volleyball, water polo), each marked *auto* for its sport, plus a second basketball board. A sport with no ⚡ layout falls back to the first layout carrying its tag, and a board that already shows a layout of the new sport keeps it. Before game night, change the sport on your console or scoring app and watch the board follow.

RUNNING A GAME

Before the doors open

1. **Start the player** and open the control page (chapter 2). Look at the Dashboard's Status strip: Layout and Output should be green.
2. **Open Pre-game** and read it. Fix yellow and red lines; it tells you what to do (chapter 3).
3. **Check the data**: console on, *Data* green, and the clock on the board following the console (chapter 4).
4. **Check tonight's visitor** on **Schedule** (chapter 10).
5. **Test the sound**: fire a short clip from the Show page and listen where the crowd will hear it (chapter 11).
6. Make sure the right layout is on the board. If not, click ▶ **Play** on it.

During the game

- The scores and clock come from the console. The operator's job is clips: keep the **Show** page open and tap a tile.
- Press **Lock for the game** on Pre-game when the game starts, so nothing can be deleted or edited by accident. Firing clips, **Stop Overlay**, volume and scores keep working.

- Switching layouts is safe during a game, but the crowd sees it. Decide beforehand when you will do it.

After the game

- Unlock the game lock if you want to make changes.
- To blank the board use **Blank board** on Layouts; a release control on the same page brings back whatever layout was underneath (its tooltip: "Release the blank and show whatever layout was underneath"). Do not close the player window.

6 IMPORTING YOUR OLD DESIGNER LAYOUTS

Your old layouts are Designer `.lay` files. Display Player imports them, so you keep the boards you already built for your customers instead of redrawing them. You can import one file, several at once, or a whole folder, and every file gets its own result.

> **YOUR ORIGINALS ARE SAFE**
> The original `.lay` is never changed or moved. Importing the same file again just refreshes that layout. Importing does not touch what is playing: nothing changes on the board until you click ▶ **Play** on a card.

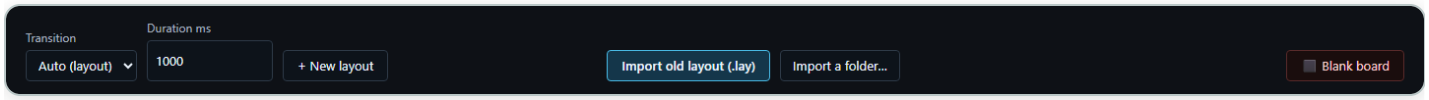
WHERE YOUR OLD LAYOUTS ARE

On a PC that has the old software they are in the Designer's program folder, `C:\Program Files (x86)\ScoreBoards.com\ScoreBoards.com Designer\layouts\`, and wherever you saved your own (many dealers keep them on the Desktop or in a folder of customer files). You can import straight from there, or copy them to a USB stick and import on the PC that runs the player.

OPEN THE LAYOUTS PAGE

1. On the booth or bench PC open a browser and go to the player's **Layouts** page, or open the control page from the *Control* icon and click **Layouts** (chapter 2). Use the address the player is serving on (chapter 2).

2. Beside **+ New layout** there are two buttons: **Import old layout (.lay)** and **Import a folder...**.



The two import buttons on the Layouts page, next to **+ New layout** (a strip of the page).

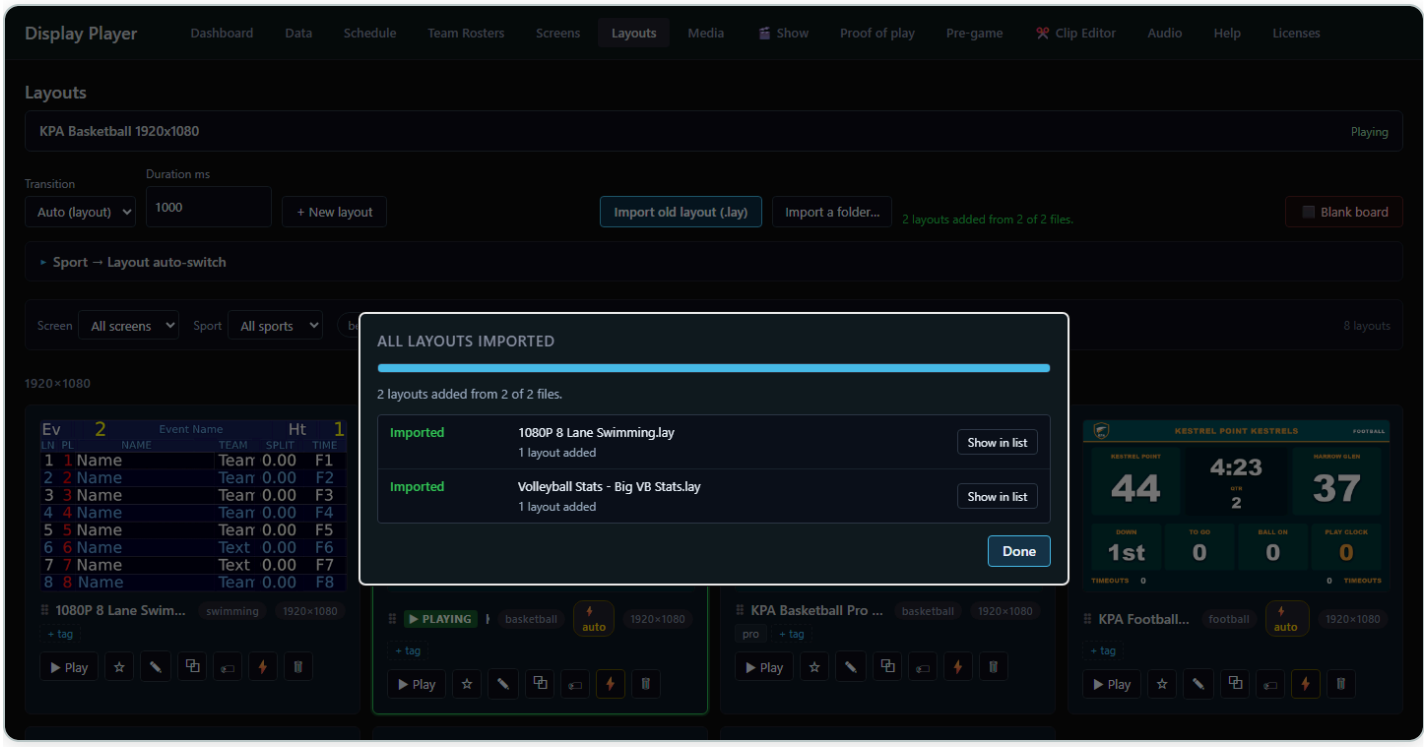
IMPORT ONE OR SEVERAL LAYOUTS

1. Click **Import old layout (.lay)**.

2. Windows opens its normal file picker. Go to where the old layouts are. Pick one `.lay` file, or hold `Ctrl` (or `Shift`) and click several, then click **Open**.

3. A box called **Importing N layout files** appears and fills with one row per file. When it finishes its title reads *All layouts imported* and it says how many layouts were added from how many files.

4. Click **Show in list** on a row, or **Done**.



The results box after importing two files: both rows are green *Imported*, each saying *1 layout added*, with a **Show in list** button per row.

READING THE RESULT OF EACH FILE

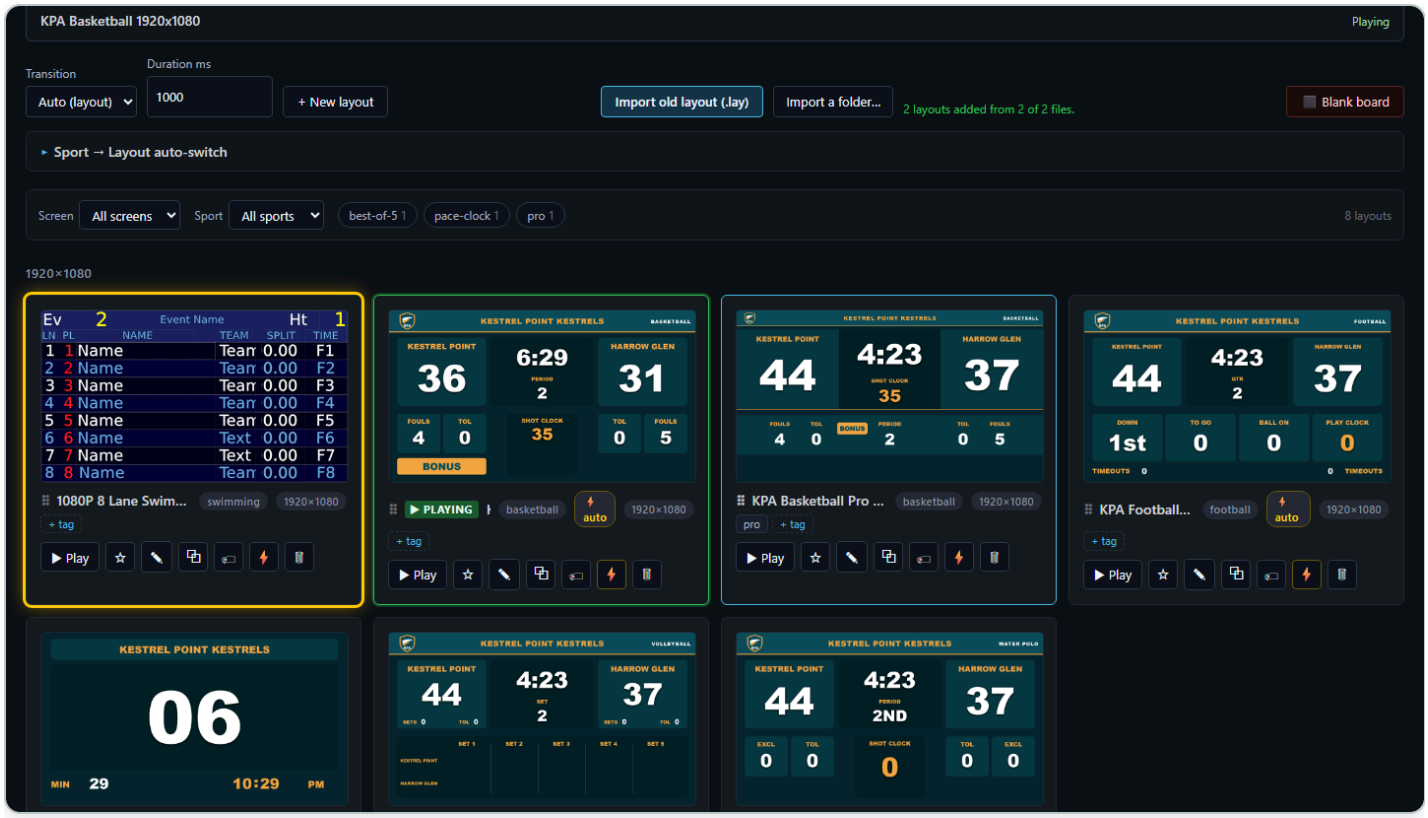
Each row ends as one of three things, so you can see at once which files need attention. The other files are never affected by one that fails.

ROW SAYS	COLOR	IT MEANS
`Imported`	Green	It converted cleanly. The line under it says how many layouts were added.
`Imported, check`	Yellow	It imported, but the old file names a picture or video it did not contain. The line under it names that file, for example *media file "logo.png" is not in the archive, so that picture or video will be blank*. Upload the file on the **Media** page.
`Failed`	Red	It did not import, and the line under it says why: for a file that is not a Designer layout at all it reads *converting <name>.lay: load `.lay` failed*, followed by the reason.

The colored word at the start of each row is the result. When every row is green the box's title reads *All layouts imported*; otherwise it reads *Import finished*, or *Nothing could be imported* when every file failed. The line under the title counts each kind, for example *3 layouts added from 1 of 2 files, 1 failed.* (one old file can hold several layouts).

WHERE THE NEW LAYOUTS APPEAR

The page scrolls to the new layouts and rings them in **yellow** for a few seconds. They are also listed under their **canvas size**: a layout keeps the size it was drawn at (an old 960 x 600 board stays **960 x 600**) and the player scales it to the screen. A card is named exactly like the old file, for example *Volleyball Stats - Big VB Stats*.



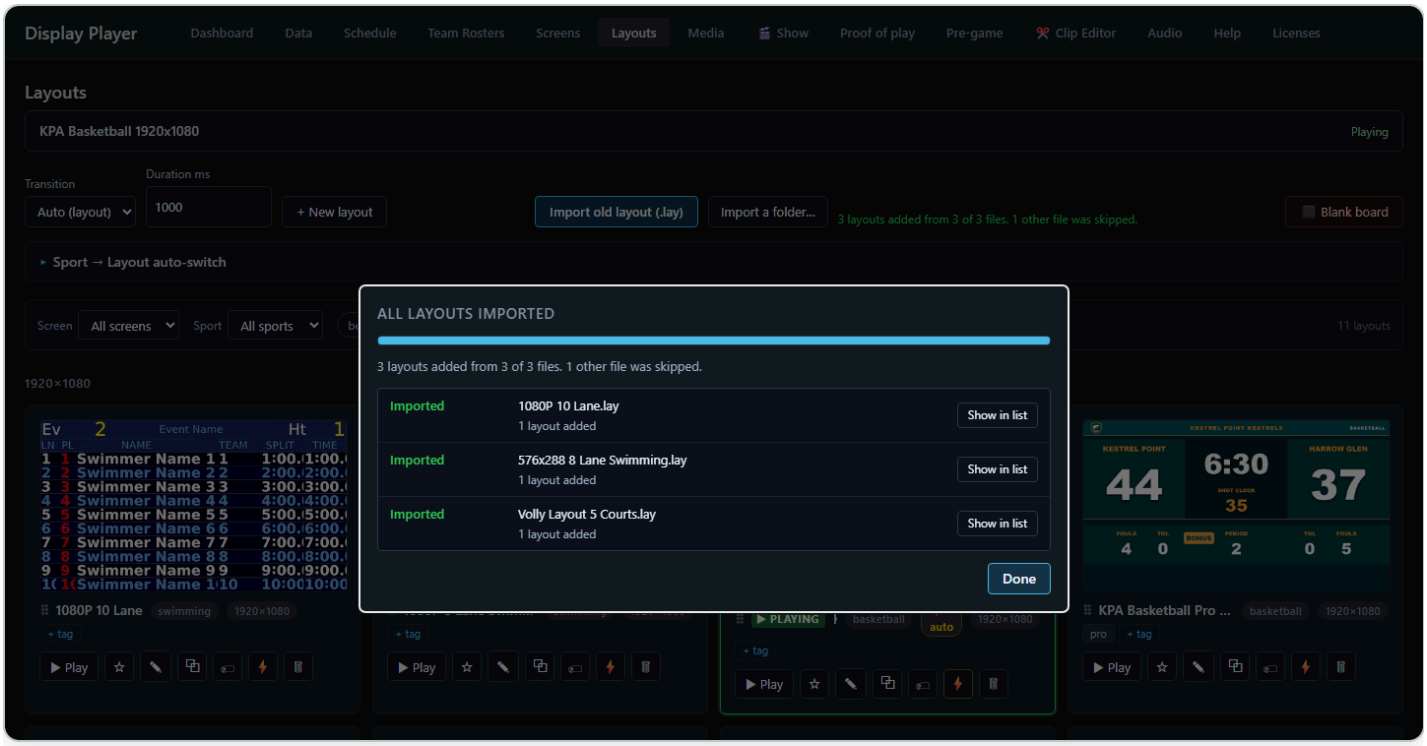
After an import the page scrolls to the new card and rings it in yellow. Its picture can take a moment to fill in.

To put one on the board, click ▶ **Play** on its card (chapter 5). Set its sport tag and, if you want it to load by itself, its ⚡ mark, as for any layout.

IMPORT A WHOLE FOLDER

1. Click **Import a folder...** and pick the folder (for example one named *SCOREBOARD LAYOUTS*).

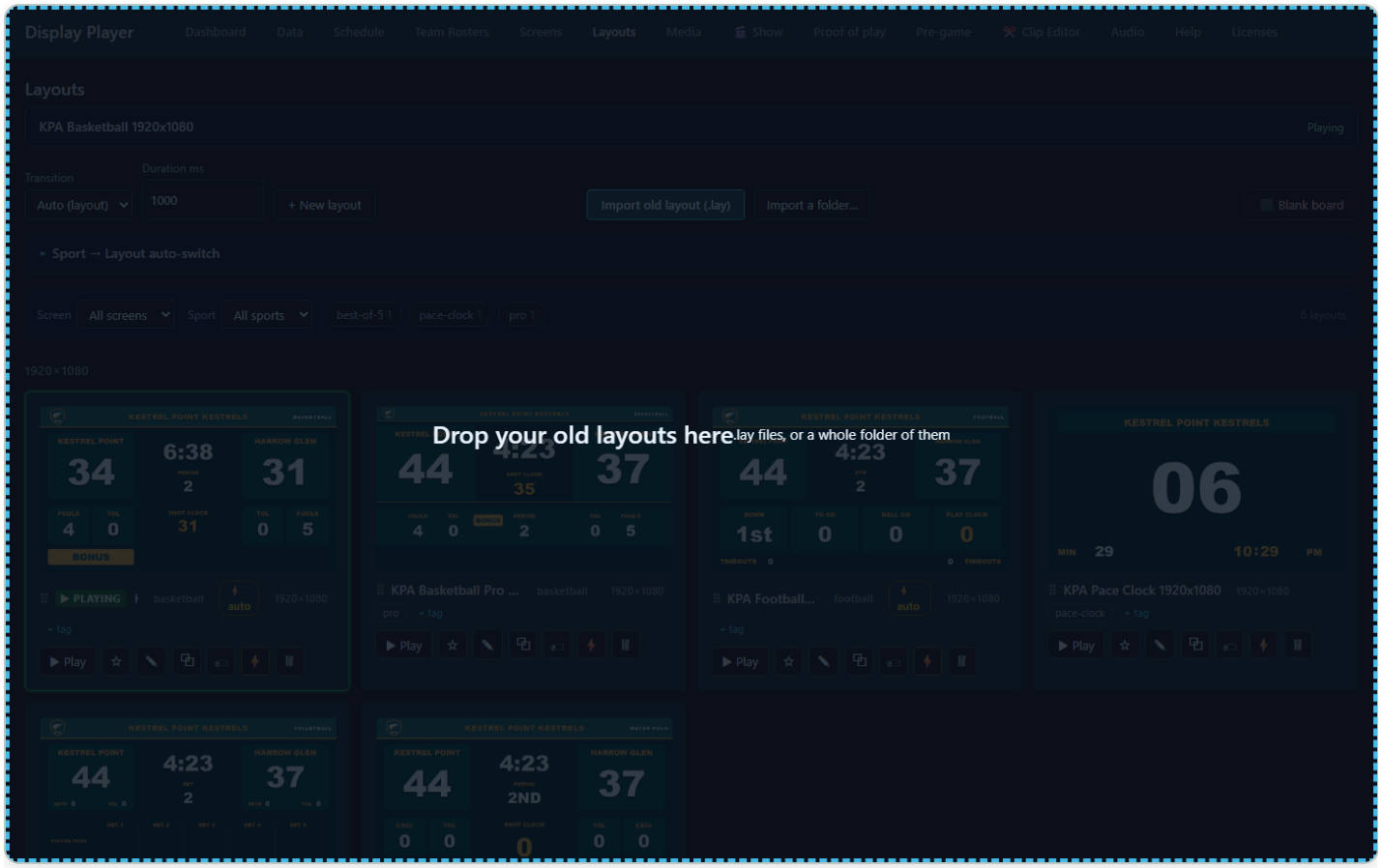
2. When Windows asks to upload the folder's files, confirm. Every `.lay` in the folder and in its sub-folders is imported. Other files are skipped, and the box says how many (for example *3 layouts added from 3 of 3 files. 1 other file was skipped.*).



A folder import: three layout files imported, and the note that one other file (a text file) was skipped.

DRAG AND DROP

Drag `.lay` files, or a folder, from File Explorer anywhere onto the Layouts page. The page darkens and says *Drop your old layouts here*. Let go, and the same results box opens.



The Layouts page while files are being dragged over it.

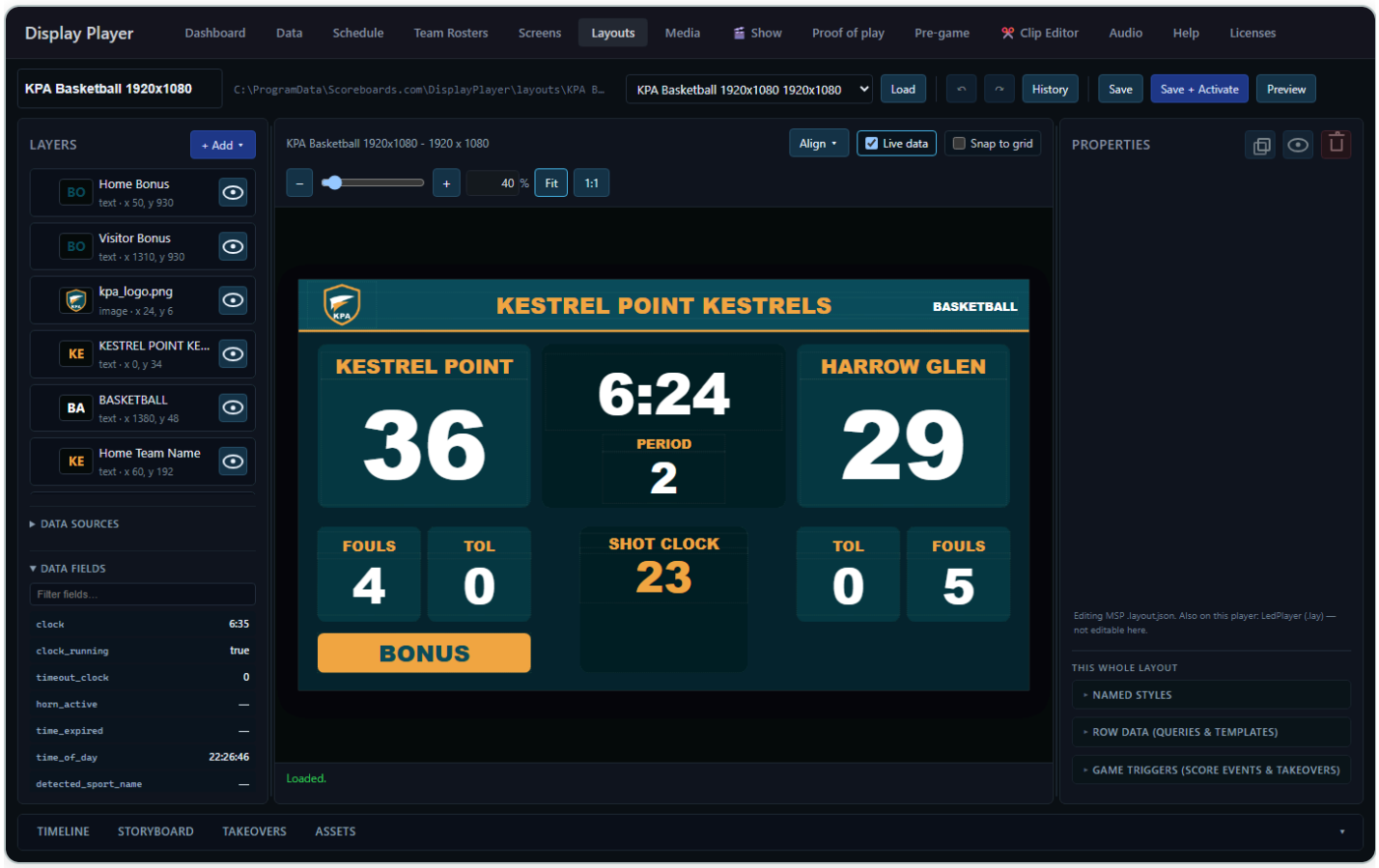
AFTER THE IMPORT

- **Check every imported layout by eye** before a game: play it with the console running and compare it with the old board. Look for three things: a score or clock that stays blank or never changes (that text is not tied to a live field; tie it in the editor), a blank box where a logo was (a yellow *Imported, check* row names that file), and a font that looks different (the PC does not have it, so a substitute is used).
- To fix a layout, open it in the editor (chapter 7); a missing picture can be uploaded on the **Media** page.
- An old layout that is tied to a feature the new player does not have will import but not behave the same. Test each board with the console running (chapter 4) before relying on it.

7 EDITING A LAYOUT

The layout editor replaces ScoreBoards.com Designer. It runs in the browser, on the player, and edits the layouts the player holds. You open it from the **Layouts** page with the pencil button on a card, or with **+ New layout** for a blank one.

> **PRACTICE ON A COPY**
>
> Click **Duplicate** on a card first and edit the copy. The original stays as a fallback. Do not edit the layout that is on the board during a game: **Save + Activate** puts your changes on the board at once.



The layout editor with a basketball layout open: the layer list on the left, the canvas in the middle, the Properties panel on the right, and the Timeline / Storyboard / Takeovers / Assets tabs along the bottom.

THE PARTS OF THE EDITOR

PART	WHAT IT IS
`Layout name`	Top left. Type to rename the layout. The gray line beside it is the file it is stored in.
`Layout menu + Load`	Pick another layout and click **Load** to switch to it without leaving the editor.
`Undo and redo`	The two curved arrows.
`History`	Earlier saved versions of this layout. See below.
`Save`	Saves the layout on the player.
`Save + Activate`	Saves and puts the layout on the board now.
`Preview`	Shows the layout.
`Layers`	Left panel: every item in the layout, front to back, each with an eye to show or hide it and a line saying its type and position (for example *text · x 60, y 192*). **+ Add** opens a menu of what you can add: *Text, Shape, Image, Line, Border, Ticker, Dynamic Image, Group, Pager, Data List, Video, Ad Group* and *Playback zone*. Items marked *fx* have effects.
`Canvas`	The middle. Click an item to select it, drag to move, drag a handle to resize. Above it: **Align**, **Live data**, **Snap to grid**, a zoom slider with **Fit** (whole layout in view) and **1:1** (real pixels).

PART	WHAT IT IS
`Properties`	Right panel: the selected item's *Item* (ID, name, type, a *Locked* box), *Position & Size* (X, Y, width, height, rotation, blend mode, opacity) and the settings for its type (text, picture and so on). With nothing selected it shows *This whole layout*: *Named styles*, *Row data (queries & templates)* and *Game triggers (score events & takeovers)*.
`Data Sources / Data Fields`	Under the layers. *Data Fields* lists every live value (`clock`, `home_score`, `period`...) with its current value, and a filter box. These are the names a text item is tied to.
`Timeline, Storyboard, Takeovers, Assets`	Tabs along the bottom: animation over time, scenes, content that takes over the board, and the media the layout uses.

SEEING REAL NUMBERS WHILE YOU DESIGN

Tick **Live data** above the canvas and the canvas shows the values the player holds right now. Untick it to see the design as drawn, with its sample text. If a number on your design shows a field's name or stays empty when you tick it, that item is not tied to a field.

TYPICAL JOBS

1. **Change a team name's color or size.** Click the text on the canvas (or its row in *Layers*), then change it under *Properties*.
2. **Move or hide something.** Drag it, or use the eye on its layer row.
3. **Add an item. + Add** in the Layers panel, then pick the kind from the menu (the thirteen kinds are listed above). Place and style it in Properties. *Ad Group* is the rotating sponsor box (chapter 9); *Video* and *Playback zone* give clips somewhere to play.

4. **Tie a text item to a score or clock.** Open *Data Fields* under the layers, select the text item, then click the field (for example `home_score`); the status line says *Bound … to home_score*. Or drag a field from the list onto the canvas to make a new text item already tied to it. You can also choose it in Properties under **Data Binding**: click the arrow beside *Binding* and pick from the list, or × to clear it. On a board imported from an old layout the field shows in *Binding* but is changed in the *Text* box.

5. **Save. Save** to keep it, **Save + Activate** to keep it and play it.

Properties shows only what fits the item you selected. Every item has *Item* and *Position & Size*. A text item adds *Text* (font, size, color, alignment, fit, wrap) and *Data Binding*; a picture adds *Media* (source and fit); a shape adds *Shape* (fill, stroke, corner radius) and *Gradient*; a video adds *Media* and *Video* (autoplay, loop, volume, trim). *Effects*, *Animation* and *Conditional Overrides* follow, folded until you open them.

UNDO, COPY AND PASTE

Click the canvas or a layer first, so the keys go to the canvas and not to a box you were typing in. These keys then work on the selection:

KEYS	WHAT THEY DO
Ctrl+Z / Ctrl+Shift+Z	Undo / redo (the status line says *Undid last edit.* or *Redid edit.*)
Ctrl+C / Ctrl+X / Ctrl+V	Copy / cut / paste. A paste lands slightly down and to the right of the original.
Ctrl+D	Duplicate
Delete	Delete the selection
Arrow keys	Nudge 1 pixel; with Shift, 10 pixels
Ctrl+A	Select everything
Ctrl+G / Ctrl+Shift+G	Group / ungroup
Ctrl+] / Ctrl+[	Bring forward / send backward; with Shift, all the way to the front or back
Esc	Close a menu, then deselect
Ctrl+S / Ctrl+Shift+S	Save / Save + Activate

Right-click an item, empty canvas or a layer row for the same commands: Cut, Copy, Paste, Duplicate, Bring to Front, Bring Forward, Send Backward, Send to Back, Group, Ungroup, Hide or Show, Select All and Delete, each with its keys shown beside it. A right-click Paste lands where you clicked.

HISTORY: EVERY SAVE IS KEPT

The **History** button in the editor brings back an earlier saved version of the layout. If you broke a layout, open History and restore the last good one. Every time you save, the player keeps a copy of the version you replaced (the last 100). Click **History** to see them under *Saved versions*, newest first, each with its date, time and number of items. Click **Open** on the one you want: it replaces the canvas but is not saved yet (Ctrl+Z goes back). Click **Save** to keep it; the version you replaced is kept too, so a restore can itself be undone.

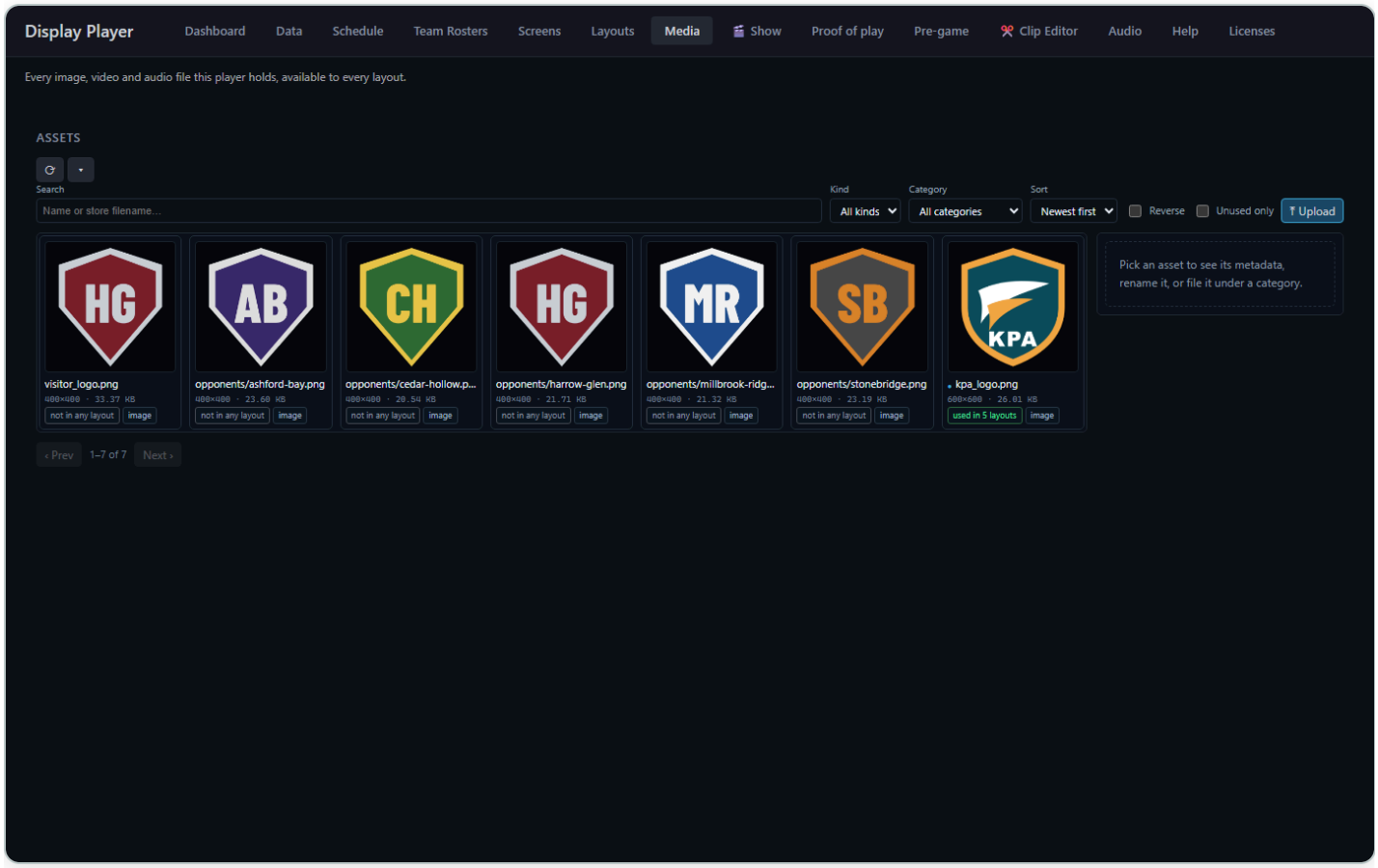
LAYOUTS MADE FROM A PHOTOSHOP FILE

A player built for a designer's Photoshop boards has an **Import Photoshop (.psd)** button on the Layouts page. Other players do not show it; ask for it when you order if your boards come from a designer as `.psd` files.

8 MEDIA, CLIPS AND THE SHOW PAGE

Two pages hold your pictures, videos and sounds. The **Media** page is the library everything is drawn from. The **Show** page is where clips are fired during a game. This chapter covers both and the **Clip Editor**.

THE MEDIA LIBRARY



The Media library. Previews fill in a few at a time ("rendering…") when the page is first opened.

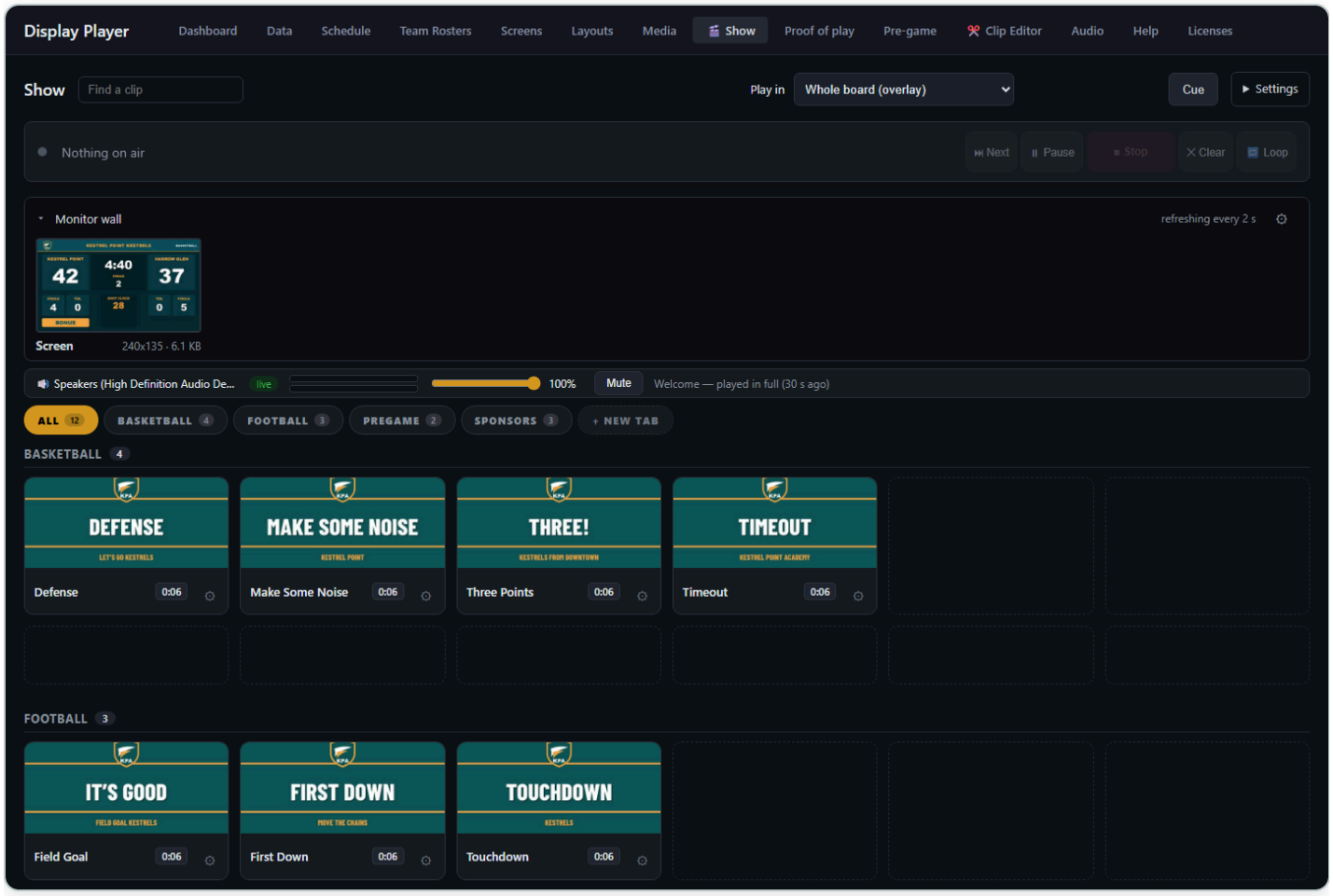
Every image, video and audio file the player holds, available to every layout. On a new player it holds the pictures the layouts are built from (in the picture, the school's logo). Each tile shows the file's name, its size in pixels and bytes, how many layouts use it and its kind.

- **Search, Kind, Category, Sort.** Narrow the list by name, by image/video/audio, by the category you filed it under, and order it newest first or reversed.
- **Unused only.** Shows files no layout uses, which are safe candidates to remove.

- **Upload.** Adds files to the library. Click a tile to see its details, rename it, or file it under a category.

> **BEFORE YOU DELETE ANYTHING**
>
> The "used in N layouts" line is the safety check: a file used by a layout that is on the board will turn into a blank box if it is deleted.

THE SHOW PAGE AND ITS CLIPS



The Show page: sound bar, tabs, and one tile per clip with its length. Empty dashed cells are free places to drop a tile.

- **Tabs. All** plus one tab per group, with a count: here *Basketball 4*, *Football 3*, *Pregame 2* and *Sponsors 3*. **+ New tab** makes another.
- **Tiles.** A thumbnail, the clip's name, its length (*0:12*) and where it plays (*Screen*). With a mouse, point at a tile and click its green ▶ **Screen** button to play it over the board; on a touch screen, tap the tile. Dashed boxes are empty cells.
- **Find a clip** filters tiles by name.

- **Play in.** Where clips appear. The default is *Whole board (overlay)*. The page explains how to add a smaller place: in Layouts, select a shape or image and tick *Use as Show playback destination*, or add a Playback zone.
- **Cue.** Click **Cue** (it turns to *Cue on*) to line a clip up without airing it. Playing a tile then holds it in a small *CUE* box on the on-air bar, with the player's own preview of it; click **Take** to put it on the board, or ✕ to drop it. Cue is set per browser, so the booth PC and a tablet can differ.
- **Settings.** The defaults every clip follows unless its tile or tab says otherwise: how long stills show, how clips fit a screen of another shape (*Letterbox*, *Stretch*, *Crop*) and how they arrive and leave (a cut or a crossfade). It also has *Play clip audio in this browser* and the tools *External & schedules*, *Arrange tiles* and *Select clips*.
- ⚙ **on a tile.** That clip's own options: its tab, whether it plays once or until Stop, what a tap does (play now and clear the queue, play now and keep the queue, or add to the end of the queue), where it plays, its fit, how it arrives and leaves, a sport label, a keyboard key and a color, plus **Rename** and **Delete**.
- **Sound bar.** The output device, a level meter, the volume and **Mute** (chapter 11).

A tile whose length reads –:–– has not been measured yet; it plays all the same.

ADDING CLIPS

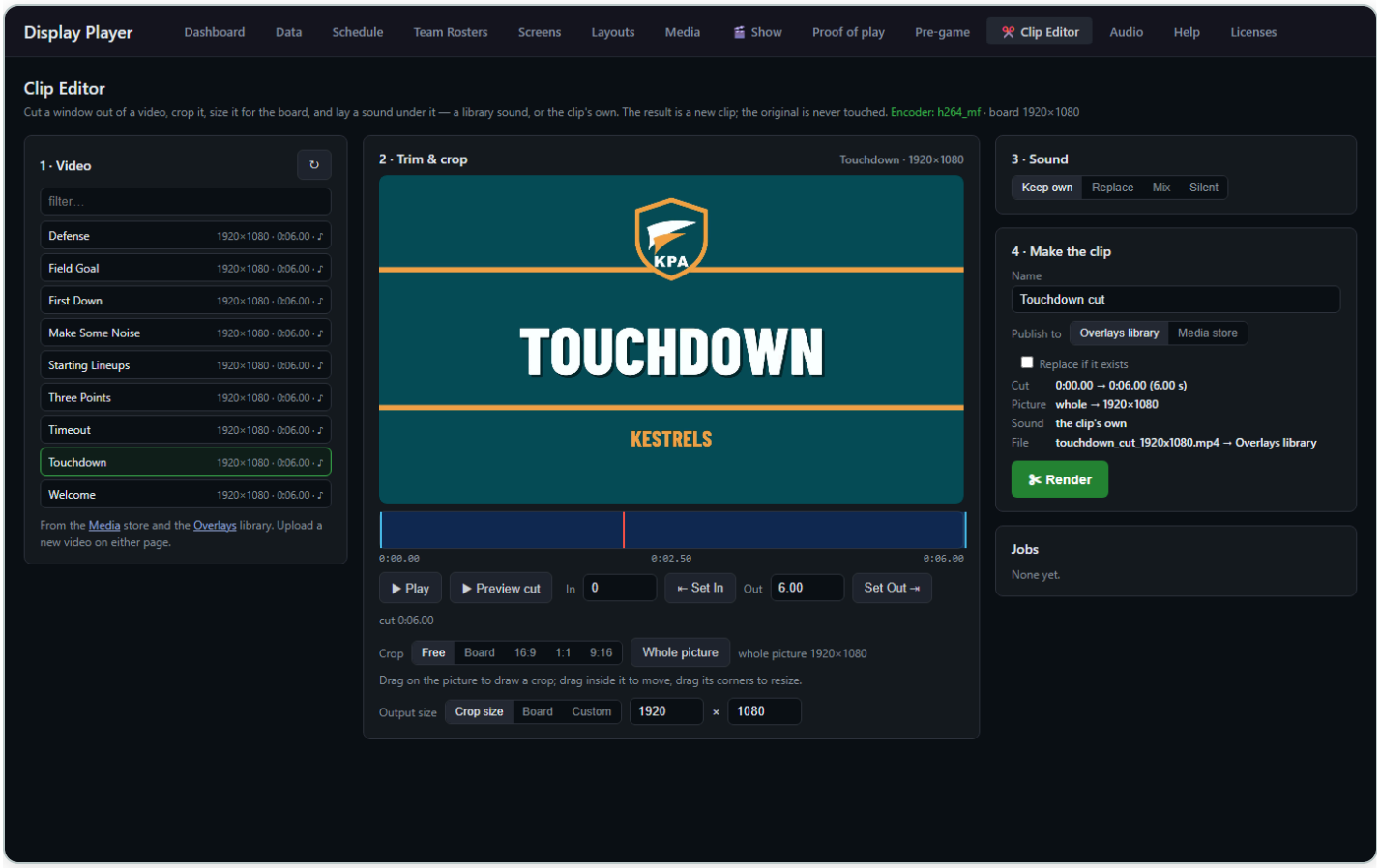
1. Scroll to **Add a clip** at the bottom of the Show page.
2. Drop video or picture files on the box, or click **Choose files**.
3. The page asks you to pick the files *first*. Each file's title, **sport**, **hold** (how long a picture stays up) and **fit** (how it fills the board) are set next, *before* anything is imported.
4. Import them. Each gets a tile.

The line **Where clips live** under the panel tells you which folder on the PC holds the clips.

> **MAKE CLIPS THE SIZE OF THE BOARD**
>
> A clip plays best at exactly the board's size, as H.264 video. A bigger file makes the PC work harder to show a picture the board cannot display. The Pre-game page names any clip that is "too heavy for this PC to decode smoothly" and says to **convert it on the Show page**. Keep clips at the board's own size, and use a PC with a proper graphics card for a large wall.

When you add a clip with far more pixels than the board (a 4K video on a 1920 x 1080 board, say), the player starts playing it right away and makes a board-sized copy in the background, named for the clip and the board's size (for example *crowd_1920x1080.mp4*). It switches to the copy by itself when it is ready, and the job shows under *Fitting clips to this board*; your original is kept. A still picture much bigger than the board is shrunk to fit before it is stored, and the upload says so. The best fix is still to export clips at the board's size in the first place: the Show page's *Export settings for this scoreboard* panel gives the numbers to hand to whoever cuts your videos.

THE CLIP EDITOR



Clip Editor: **1 Video** (the list of clips), **2 Trim & crop** (preview, In/Out, crop), **3 Sound** and **4 Make the clip**.

Use it to shorten a long video, cut out the part you want, crop it to the board's shape, and replace or mix its sound. The result is a **new clip**; the original is never touched.

1. **1 Video.** Pick the clip from the list (it shows size, length and whether it has sound). Videos come from the Media store and the overlays library.

2. **2 Trim & crop.** Press **Play**, then **Set In** and **Set Out** at the points to keep; **Preview cut** checks it. Crop with *Free*, *Board*, *16:9*, *1:1* or *9:16* by dragging on the picture, or *Whole picture*. *Output size* can be the crop size, the board, or custom.

3. **3 Sound.** *Keep own*, *Replace*, *Mix* or *Silent*.

4. **4 Make the clip.** Give it a name, choose where to publish (*Overlays library* or *Media store*), tick *Replace if it exists* only if you mean it, and click **Render**. A *Jobs* list under it shows progress.

The page states which encoder it will use (for example *h264_mf*) and the board size (*1920 x 1080*).

The clip is made in the background. The *Jobs* list shows its progress, then *done* with its size and length and links to open it or to fire it. A clip published to the *Overlays library* is saved as *name_width x height.mp4* (a clip named *Crowd Hype* on a 1920 x 1080 board becomes *crowd_hype_1920x1080.mp4*) and is ready to fire from the Show page; one published to the *Media store* is saved as *name.mp4* for use in layouts. The video you started from is never changed. A name that already exists is refused (*"... already exists there — pick another name, or tick Replace"*) unless you tick *Replace if it exists*.

9 SPONSORS AND ADS

Sponsors reach the board in four ways in Display Player. This chapter describes each, and what to ask for when your old Designer layouts used a feature that has a different name here.

1. A ROTATING SPONSOR BOX: THE AD GROUP

The old Designer **ad group** (several images in one box, a number of seconds between them) is an **Ad Group** in the editor, a slideshow box. An imported `.lay` ad group becomes one too, so the rotation you built carries over.

1. In the editor, add an **Ad Group**, then click **+ Add images…** to pick its pictures (only still pictures can join a slideshow).
2. The **Slideshow (Ad Group)** panel lists the slides in order. Drag a row, or use its ↑ and ↓ arrows, to reorder it; × takes it out of the rotation.
3. Under the list, **Placement** sets how each picture sits in the box: *Best fit* (the whole picture, with bars if its shape differs), *Actual size* (real pixels, with a grid to anchor it), *Stretch* or *Fill (crop)*. **Background** paints behind every slide and fills those bars: *No fill*, black, white or any color. Placement sits right under the slides because "why is my logo squashed" is the question operators ask first.
4. Under **Timing**, *Seconds per slide* sets how long each one holds (7 seconds for a new Ad Group). Tick *Per-slide timing* to give each slide its own hold, and pick a *Transition* and its length. *Mode* can also make the box a scrolling strip.
5. ▶ **Play** runs the slides on the canvas at those times, and ⚙ **Render on engine** draws the selected slide exactly as the wall will.

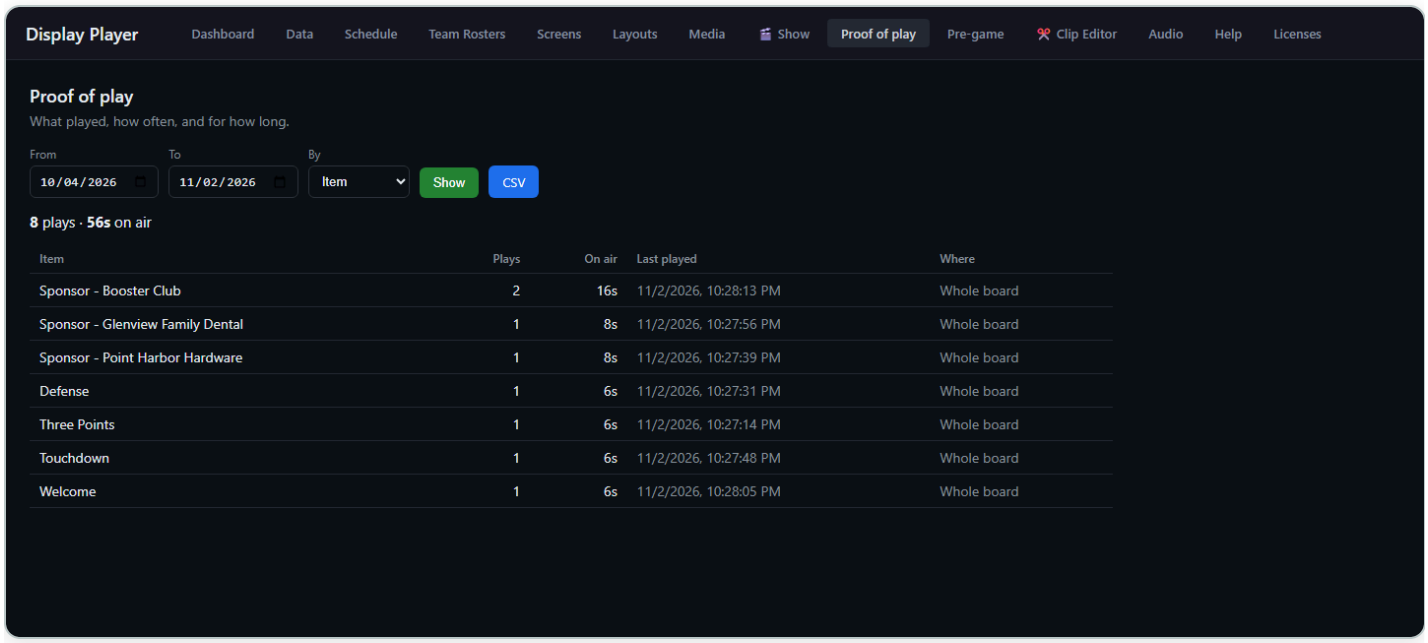
2. A SPONSOR PICTURE ON DEMAND

A picture can be a **tile on the Show page**: tap it and it stays up for its *Hold* time, then the board returns (chapter 8). Use this for a "this quarter brought to you by…" card.

3. A LAYOUT BUILT AROUND SPONSORS

A layout can be built around sponsors: a sponsor board, or a takeover that fills the screen. Play it from the **Layouts** page like any other. The editor's **Takeovers** tab holds content that *preempts* the board, such as a starting lineup, a score celebration, a timeout card or an emergency message, fired by a game event or a button.

4. PROOF THAT IT RAN



Proof of play. Pick the dates, choose how to group (*Sponsor*, *Item*, *Day*, *Every play*), click **Show**; **CSV** saves it for a sponsor.

The **Proof of play** page lists what played, how many times, for how long and when it last played, and where. In the picture, the three sponsor cards fired from the Show page during a demonstration game are counted per sponsor (the businesses are invented).

WHAT IS COUNTED, AND UNDER WHICH SPONSOR

Proof of play counts three things: every tile played from the Show page (tapped, fired by a button or by a game rule), every picture or clip in a sponsor ad zone's folder rotation, and every page of a rotating layout. The slides inside an Ad Group are not counted one by one, so a sponsor who needs a report should have a Show tile or a layout page of their own.

By Sponsor groups plays by the start of each name. The file extension, sizes such as *1920x1080*, version numbers and words such as *final* or *copy* are dropped, and hyphens become spaces, so *Glenview_Dental_1920x1080_v2.mp4* and *glenview dental 2.png* both count for *Glenview Dental*. Start every tile and file name with the sponsor's name and the report groups them for you. *By Item* lists each tile or file under its own name.

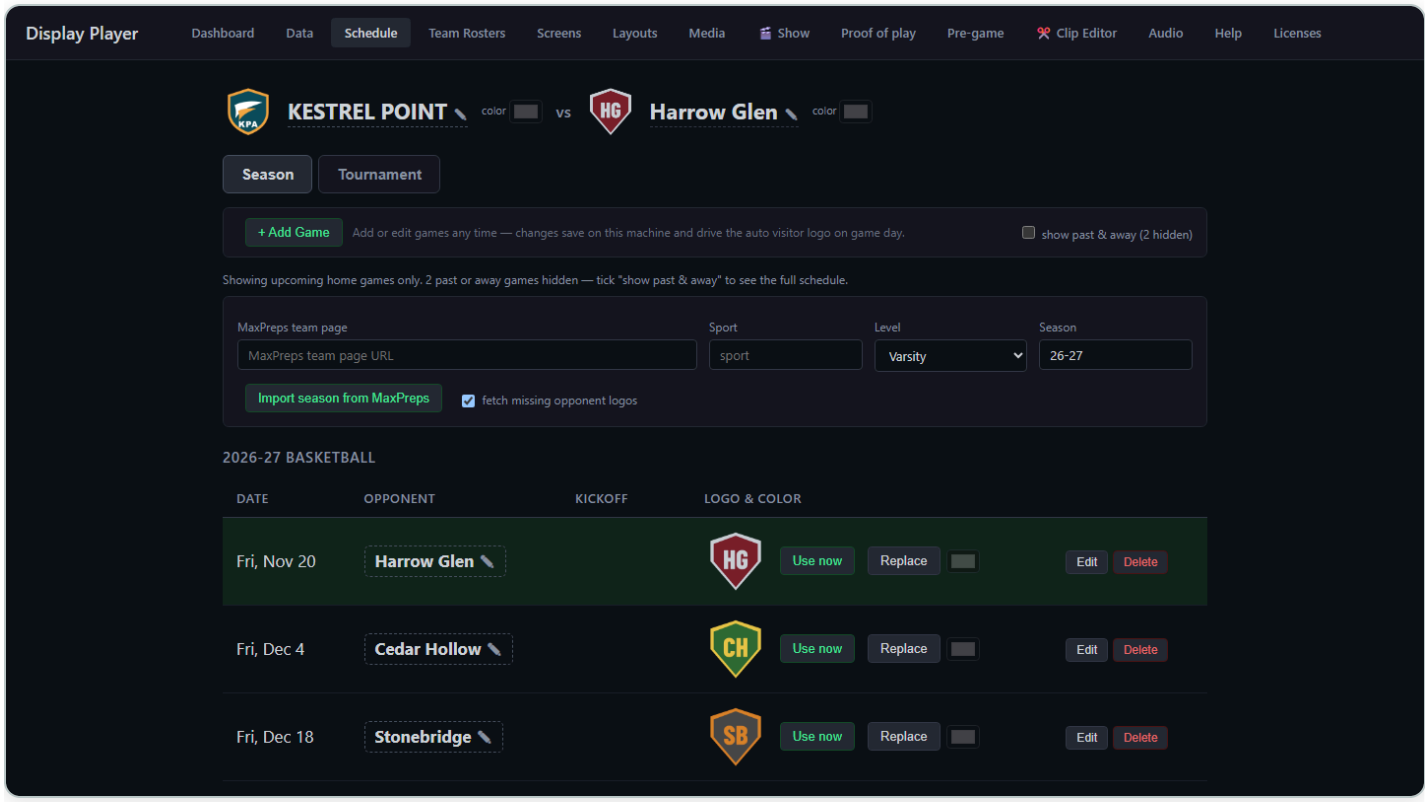
WHERE THE OLD ROUTINE GOES

YOU USED TO…	NOW…
Put sponsor logos in a Designer ad group	An Ad Group (slideshow) item, or an imported `.lay` ad group (chapter 6).
Fire a sponsor video from RocketEffects	A tile on the Show page.
Count sponsor exposure by hand	Proof of play: Show tiles, ad zones and layout pages are counted.

10 SCHEDULES AND TEAM ROSTERS

Two pages hold the facts about teams: **Schedule** (who you play and when) and **Team Rosters** (who is on the team). Neither is needed to run a board, but they save typing on game night and keep names and logos right.

SCHEDULE



The Schedule page: the home team and tonight's visitor with their colors, the **Season** and **Tournament** tabs, **+ Add Game**, and the MaxPreps importer.

- **Home** at the top is your team's name (click the pencil to change it) and a color swatch.
- **+ Add Game** adds a game by hand. The page says that changes save on this machine and drive the **auto visitor logo on game day**.
- **Import season from MaxPreps.** Paste your team's MaxPreps page, set the sport, level (*Varsity* and others) and season, and click the green button. *Fetch missing opponent logos* is ticked by default.
- **Season** and **Tournament** are the two views. *Show past & away* reveals games the default list hides.

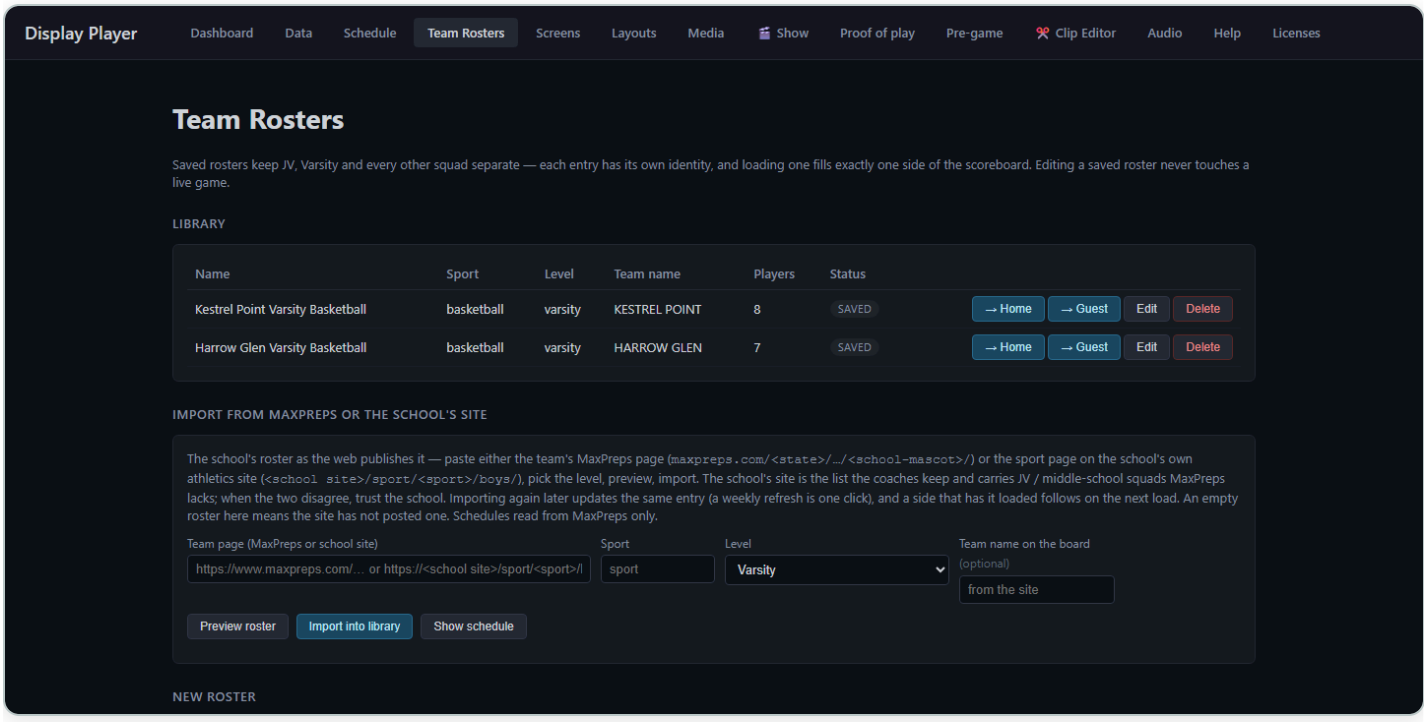
Importing from MaxPreps

The importer needs the internet and a *maxpreps.com* team page; a school's own site is not read here. Type the sport (a blank sport is read as football) and pick the level and season. Importing again later updates the games already on the list, drops games MaxPreps has removed, and leaves the games you added by hand alone. The line beside the button says how many games were added, updated and removed, and names any opponent with no logo on MaxPreps.

Putting tonight's visitor on the board

A game whose opponent has a logo in the library shows **Use now**. Click it and that opponent's name, logo and color go on the visitor side of the board at once; a game whose opponent has no logo shows **Upload** instead. A team name sent by the console still takes over the name. You often do not need the button: every time the player starts, it puts up the next home game's opponent by itself.

TEAM ROSTERS



Team Rosters: the saved library at the top, an importer in the middle and a form for a new roster at the bottom.

Saved rosters keep JV, Varsity and every other squad separate. Each entry has its own identity, and loading one fills exactly **one side** of the scoreboard. Editing a saved roster

never touches a live game.

Import a roster from MaxPreps or the school's own site

1. Paste the team page: either the team's MaxPreps page or the sport page on the school's athletics site.
2. Enter the **sport**, the **level** and, if you want, the **team name on the board** (otherwise it comes from the site).
3. Click **Preview roster** to see what was found, then **Import into library**. **Show schedule** reads the schedule from MaxPreps.

Where the two disagree, the page says to trust the school. Importing again later updates the same entry, so a weekly refresh is one click. An empty roster after import means the site has not posted one.

Type or capture a roster

In *New roster* give a name, sport, level and team name, then list players **one per line as** `number, name, position` (position is optional) and click **Save roster**. **Capture live HOME side** and **Capture live GUEST side** save the roster currently loaded on that side of a live game.

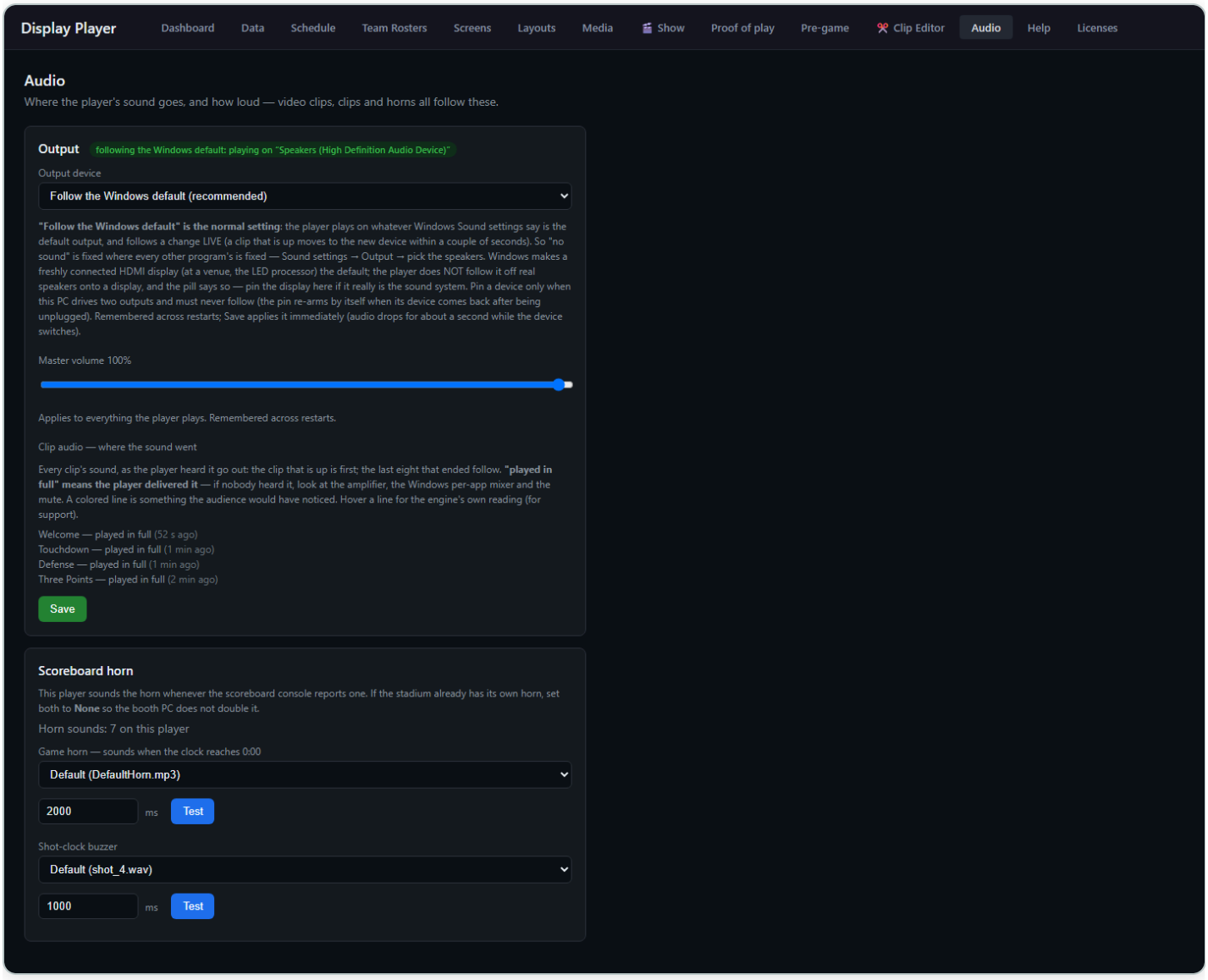
Putting a roster on the board

Click → **Home** or → **Guest** on a roster's row in the library. That side's players (numbers and names) change at once, and so does its team name if the roster has one; the other side is not touched. The board shows them wherever the layout has player fields. Positions stay in the library and are not shown on the board. If the console sends its own player list, the console's list wins.

Capture live HOME side and **Capture live GUEST side** ask for a name and save whatever players are on that side now, from a loaded roster or from the console; set the sport and level afterward with **Edit**. During a game lock, loading a roster still works; saving, capturing and importing wait until the game is unlocked.

11 AUDIO AND THE HORN

Clip sound, the game horn and the shot-clock buzzer all come out of the PC the player runs on. The **Audio** page chooses where, and how loud.



The Audio page: Output, then Master volume, a record of where each clip's sound went, and the Scoreboard horn.

OUTPUT DEVICE

The normal setting is **Follow the Windows default (recommended)**. The player then plays on whatever Windows Sound settings name as the default output, and follows a change live: a clip that is up moves to the new device within a couple of seconds. The list also

offers each output Windows knows by name, for example the PC's speakers and the audio output of an HDMI or DVI display.

> **WATCH THE AMBER LINE**
> The page prints a line under the heading saying where sound is going now. When it is amber and says the sound is going to *a DISPLAY's audio output*, that is the signal that the default output is a screen's HDMI/DVI audio, which only plays if that screen has speakers. The Pre-game page names the output too (*Sound goes to '...' (the Windows default)*), and says plainly when the PC has no sound output at all. If sound should come from the PC's speakers or an amplifier, change the Windows default (Settings, System, Sound) or pin the device in the list.

The page says that "no sound" is fixed where every other program's sound is fixed: in Windows Sound settings.

MASTER VOLUME

One slider, applying to everything the player plays. It is remembered across restarts. Click **Save** to apply. The Show page has its own volume slider and **Mute** in its sound bar.

CLIP AUDIO: WHERE DID THE SOUND GO?

The panel lists every clip's sound as the player heard it leave: the clip that is up first, then the last eight that ended. **"Played in full"** means the player delivered all of it. If nobody heard it, look at the amplifier, Windows' per-app volume mixer and the mute. A colored line means something the audience would have noticed. This is the first thing to read when a venue says "the clip had no sound".

SCOREBOARD HORN

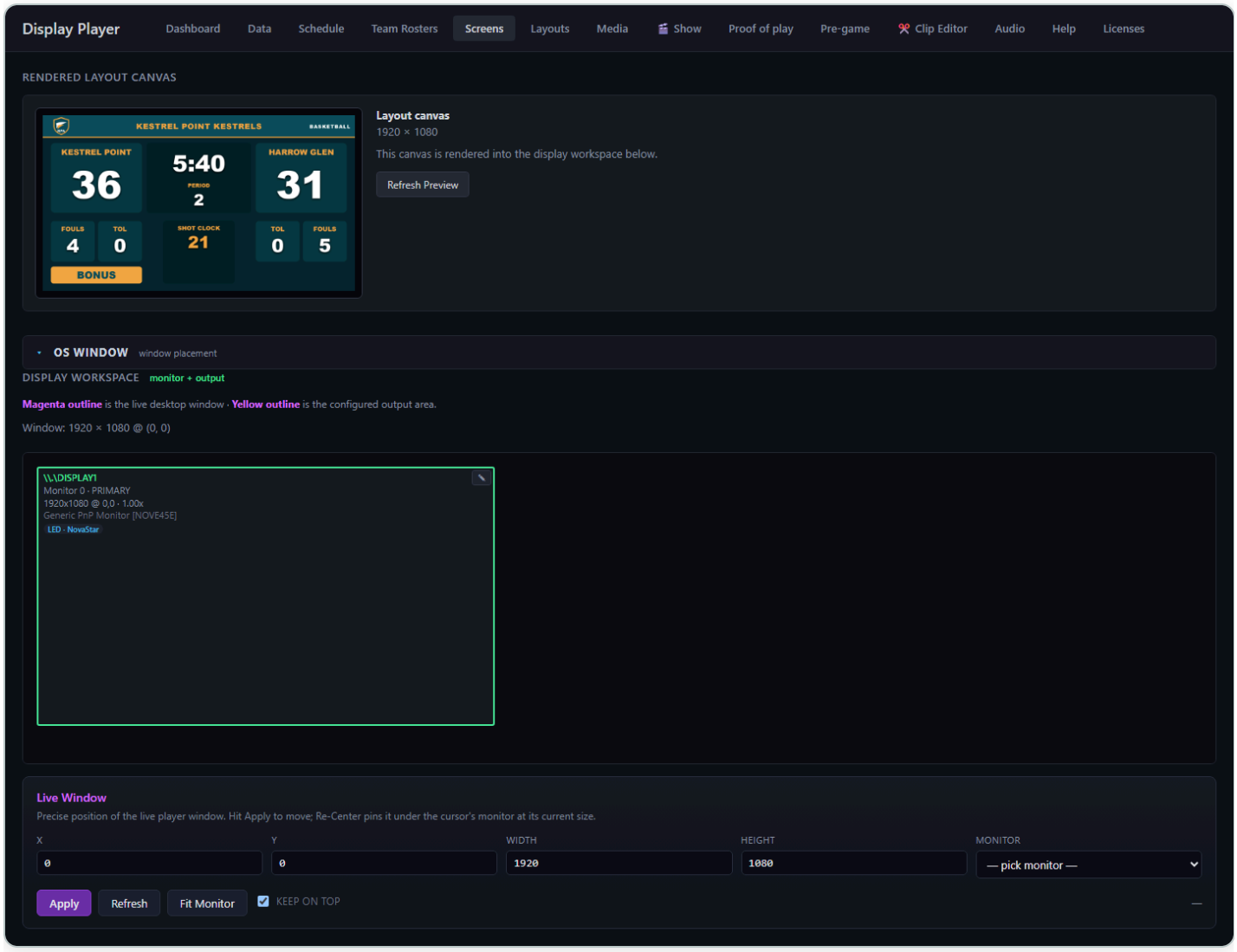
The player sounds the horn whenever the scoreboard console sounds its own: at 0:00, and whenever the console operator presses the horn. If the stadium already has its own horn, set both choices to **None (silent)** so the booth PC does not double it. There are two choices:

- **Game horn** (default *DefaultHorn.mp3*, 2000 ms).
- **Shot-clock buzzer** (default *shot_4.wav*, 1000 ms). It sounds with a console that sends a separate shot-clock horn; with a console that has one horn, that horn plays the game horn.

Each has a list of sounds (*2s.wav, Bell.wav, DefaultHorn.mp3, nba.wav, scoreboard_buzzer.wav, shot_4.wav, trumpet.wav*; seven come with the player), a length in milliseconds and a **Test** button. **Test** plays the *saved* choice: pick a sound, click **Save**, then **Test**. The line beside **Save** says what played and for how long, for example *Played DefaultHorn.mp3 (2000 ms)*. The horn follows the master volume, and the Show page's **Mute** silences it too.

12 SCREENS AND PUTTING THE BOARD ON THE LED WALL

The board window has to land on the LED screen at the right size. In the old software that was LedPlayer's output settings. In Display Player it is the **Screens** page.



The Screens page. Top: the layout canvas. Below: the display workspace, with each monitor drawn as a box and the player window outlined in magenta.

WHAT THE PAGE SHOWS

- **Rendered layout canvas.** The layout now playing and its size (1920 x 1080 in the picture). **Refresh Preview** redraws it. If the page cannot read the live frame, it shows the layout's thumbnail and says so.

- **Display workspace.** One box per monitor Windows knows, drawn to scale and labeled `\\.\DISPLAY1`, `\\.\DISPLAY2` with its size, position and the monitor's name. The LED processor shows up as a monitor. Typically *DISPLAY1* is the PC's own screen (*PRIMARY*) and *DISPLAY2*, placed to its right, is the processor; a NovaStar processor is tagged *LED · NovaStar*. A magenta outline is the live player window; a yellow outline is the configured output area.
- **Live Window.** Exact numbers for the player window: **X**, **Y**, **Width**, **Height** and which **Monitor**, with **Apply** to move it, **Refresh**, **Fit Monitor**, and a **Keep on top** option (saved, so it survives a restart). Each monitor box also has a ✎ button to give it a name.

PUTTING THE BOARD ON THE LED SCREEN

1. Connect the LED processor (or sending box) to the PC as a display and set Windows to **extend** the desktop, so the processor is its own monitor rather than a copy of the laptop.
2. Open **Screens**. The processor should appear as a second box with the make shown. Check its size is the processor's input size.
3. Under *Live Window* choose that monitor, click **Fit Monitor** (it fills in the numbers), then **Apply** (it moves the window). The magenta outline should now cover that box.
4. Look at the Dashboard's *Output* cell: it names the processor's display and the window size. If the processor is unplugged it says *video processor not connected*.

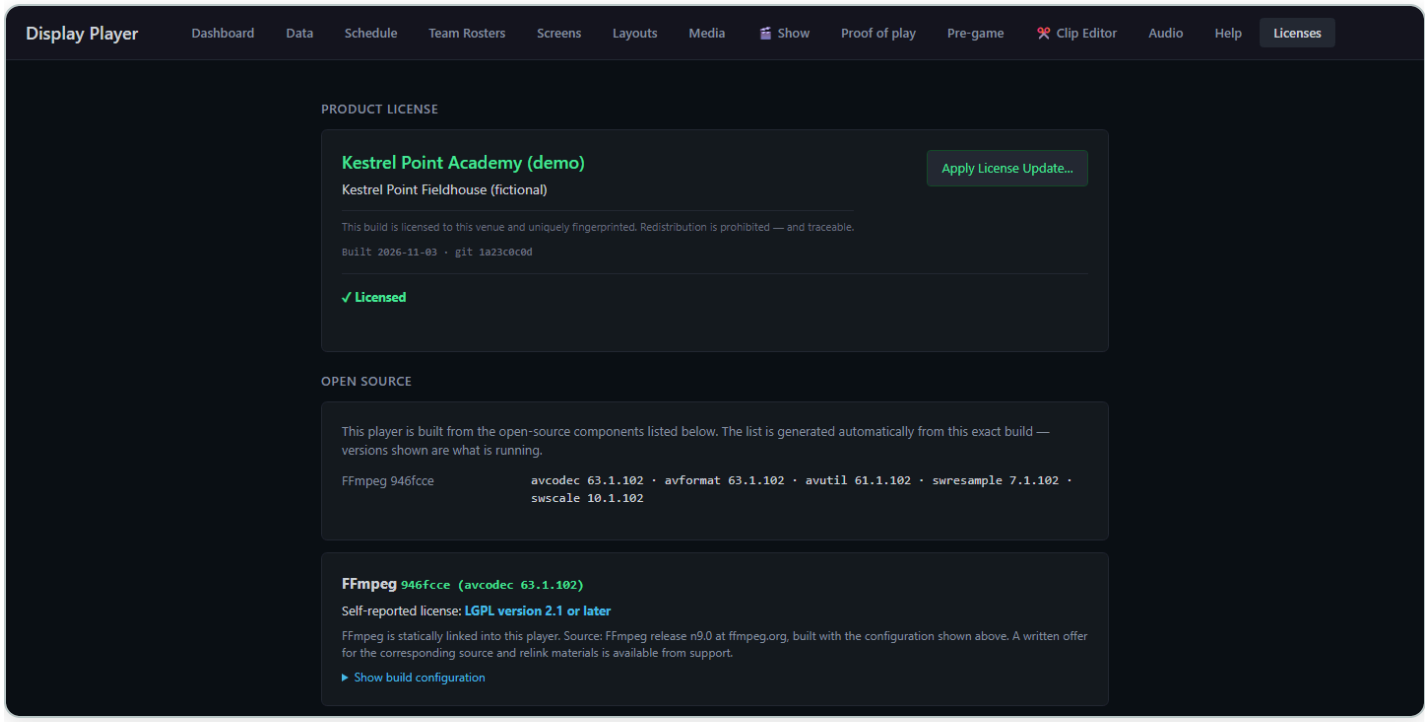
In the pictures the whole wall is one 1920 x 1080 picture. For a wall that is a different size, the layout should be built at the wall's own size (the Layouts page groups cards by size).

EXTRA SECTIONS ON SOME PLAYERS

Some players show more on this page. A venue with several LED walls fed from one window shows **Wall Screens**, one card per wall. A sign with automatic dimming shows **Wall Brightness**: a slider for a manual level, **Back to automatic** to return to the sunrise and sunset schedule, and **Set location** for the site. A player without those features, like the one pictured, shows only the layout canvas and the display workspace. An LED processor's own set-up (cabinet map, brightness) is done in the processor's software, not here.

13 LICENSING AND WHAT MACHINE-LOCKED MEANS

A Display Player build is made **for one customer and one PC**. This chapter explains what that means in practice, what the **Licenses** page tells you, and what to do when a PC is replaced.



The Licenses page. Top: who the build is licensed to, and the status line (*Licensed*). Below: the open-source notices for the components in the build.

WHAT "MACHINE-LOCKED" MEANS

- The player program (`display-<customer>.exe`) is built for a named customer, and carries that customer's name, which the Licenses page shows at the top, under *Product License*.
- It also carries the **identity of the PC it was built for**, taken from a hardware capture of that PC (name, network adapter address, a machine ID and a disk serial). The Licenses page's *System Information* shows the same details and a *Machine ID*, described as "what a software license file is bound to".
- On that PC the build runs fully licensed: the page shows a green *Licensed*.
- A build copied to **another** PC is not licensed there. An unlicensed player draws an **EVALUATION** watermark over the board and its layout pictures.

- Each build is also **uniquely fingerprinted**: the page says "This build is licensed to this venue and uniquely fingerprinted. Redistribution is prohibited — and traceable."

> **ONE PC PER BUILD, MORE THAN ONE ALLOWED BY AGREEMENT**
> A build can be made for several named PCs (a booth PC and its spare, say). That is arranged when the build is ordered, not on this page.

READING THE LICENSES PAGE

YOU SEE	IT MEANS
Customer name, venue, contact	Who the build was made for. In the picture: the fictional *Kestrel Point Academy* of the demonstration player.
Built <date> · git <code>	The build date and its code version. Quote these to support.
✓ Licensed	All good on this PC.
⚠ unverified, No license backend compiled in	This player is not licensed on this PC: it was built for another one, and it draws the EVALUATION mark. It is not a fault a setting can fix. Send this PC's System Information file to Olympian LED for a build for it.
Apply License Update...	Opens a file picker, for a license file that Olympian LED sends you. It is used by players licensed with a USB key (below). A player licensed to its PC has nothing to update this way: a new PC always means a new build.
System Information	Host name, IP and MAC addresses, Windows version, memory, build date, and the Machine ID. **Download System Info (JSON)** saves it. Send this to Olympian LED when ordering a build for a new PC.
Open source	The notices for the open-source components in the build, generated from the exact build.

REPLACING THE PC, OR RUNNING ON A SPARE

1. Start the current player on the *new* PC. It runs there with the EVALUATION mark, but its pages work.

2. Open **Licenses** and click **Download System Info (JSON)**. If the remote agent is on the new PC, support can do this for you.

3. Send the file to Olympian LED and ask for a build for that PC. The new build runs licensed on that PC; the old one keeps its EVALUATION mark there.

PLAYERS LICENSED BY A USB KEY

Some players are licensed by a Sentinel USB key instead of by the PC. Their Licenses page has a *Sentinel Hardware Key* section that shows the key's state and its **DONGLE KEY ID**, with **Copy to Clipboard**; read that number to support. While the key is plugged in, the player runs licensed on any PC. If the page says *No Sentinel dongle detected*, check the key is firmly in a USB socket and restart the player. A license update for the key arrives as a file: apply it with **Apply License Update...**, and the page answers *Applied* with the features it now carries.

14 TROUBLESHOOTING

Start at the **Dashboard** and the **Pre-game** page. Between them they name most faults in plain words. The rows below are the failures seen most, with what to check, in the order to check it.

YOU SEE	CHECK
The control page will not open	Is the player running? Double-click the *Player* icon. Is the address right: `http://localhost:8080/` on the booth PC? It moves the browser on to the pages' own port, usually 8081, or the next free one. If the **Licenses** page names a customer that is not yours, you reached a different player. A page that opens but stays empty is the player still starting; wait a minute and press F5.
The page opens on the booth PC but not on a phone or tablet	Same network? Right address (chapter 2)? Does the Wi-Fi isolate clients (guest or student networks often do)? Has the PC's address changed? Does Windows Firewall let in both of the player's ports, 8080 and the pages' own port (usually 8081)? A phone that reaches the player but then fails to load the page points at the second port.
Dashboard says **Data: Not connected**	No console input is feeding the board, or it has lost it. Open **Data** and read the stream's line (chapter 4). On a new player whose only input is the scoring app, this is normal until a tablet connects. With no input at all the cell reads *No data source configured*.
Data is connected but the board does not move	Walk the five-line chain on the Data page. Then the test that matters: start the console's clock and watch the `clock` value change in *Live Data*. A frozen console sends healthy-looking bytes of one unchanging picture: restart the console or start a new game.
The COM port is not in the list, or "port not on this PC"	Adapter unplugged or moved to a different USB socket (new COM number). Click ↻ to scan again. Remember that a Bluetooth device can add a COM port that is not your console.
The port will not open ("in use")	Another program holds it. The old LedPlayer, a second copy of the player, or NovaLCT can. Close the old program (ask first if anyone is using it), then use **Diagnose** on the Data page.
The wrong layout is on the board	Layouts page: the green outlined card is on now. Click ▶ **Play** on the right one. After a restart the board returns to the starred (boot default) layout. Check the sport ⚡ marks if it switches by itself (chapter 5).

YOU SEE	CHECK
The board is black	Was **Blank board** on the **Layouts** page pressed (release it)? Is the player window still there (not closed or on another monitor)? Does the Dashboard's *Output* name the LED processor? Has the processor lost its input?
The board shows **EVALUATION** across it	The player is not licensed on this PC. Open **Licenses** (chapter 13). A build made for one PC does not run licensed on another. On a player licensed by a USB key, check the key is plugged in.
A layout's picture on the Layouts page says "no preview" or shows a broken image	Its thumbnail has not been drawn, or a media file it uses is missing. Open it in the editor. If a picture or font is missing, upload it on **Media**. Thumbnails of a very large or video-heavy layout can be slow to appear.
Clip is jerky, or sound cuts out	The file is bigger than this PC can play smoothly. Pre-game names such clips (*"too heavy for this PC to decode smoothly"*). Convert them on the Show page, or re-export at the board's own size (chapter 8).
No sound, or sound comes out of the wrong place	Audio page: where is sound going? An amber line says if the default is a *display's* audio output. Is Mute on, or the volume down, on the Show page? Does the clip have sound (the Clip Editor list marks the ones that do)? Is the amplifier on? Read the *Clip audio* panel: "played in full" means the player delivered it, so the fault is downstream (chapter 11).
Horn sounds twice	The stadium has its own horn and the PC is sounding one too. Set both horn choices on the Audio page to *None (silent)*.
Visitor name or logo wrong	Schedule page: the name typed for an opponent is remembered for that opponent. Correct it there.
Layouts or settings are missing after an upgrade or a change of Windows account	On **Help**, press **Check state folder**. It shows which folder the player reads its layouts, media and settings from, and warns when a library from before an upgrade, or from another Windows account, is being left unused.

YOU SEE	CHECK
Two players are running at once	Task Manager shows two `display-*.exe`. Each uses its own port and its own customer folder. Close the one you do not need once nobody is using it.

GATHERING WHAT SUPPORT ASKS FOR

1. **Help → Download bundle.txt** (build info, the PC and its network, serial ports, USB devices, displays and a log tail). It opens in a new browser tab; press **Ctrl + S** there to save it.
2. **Help → Download full log** saves the player's log file, or **View tail (64 KiB)** reads the last part on screen. Do not press **Clear logs**.
3. **Licenses → Download System Info (JSON)**.
4. A phone photo of the board and the Dashboard's Status strip.

15 GETTING REMOTE SUPPORT

PCs that run Display Player usually also run the **remote agent**, a small background program that lets Olympian LED support look at the PC and help from afar, without anyone driving to the venue. It is how support can read a log, see the screen, check a serial port or update the player.

HOW TO TELL IT IS THERE

- Look at the right end of the taskbar, by the clock (click **^** to show the hidden icons), for the **Scoreboards.com Manager** icon. It is green when it is connected to our support server and gray when it is offline; hold the pointer over it to read its state, for example *Scoreboards.com Manager v2.0.660 — Connected*. Do not choose *Exit* from its menu; if someone does, it starts again by itself within two minutes.
- It runs as the program `remote-agent.exe`, which you can find under *Details* in Task Manager (**Ctrl + Shift + Esc**). It starts by itself whenever someone signs in to Windows, and Windows checks every two minutes that it is still running.

> **NO ICON, NO PROGRAM: THE AGENT IS NOT ON THIS PC**
>
> Without the agent, support cannot connect to the PC remotely. Call or email us (the contacts are at the end of this chapter) and our support team will send you the installer. It takes a few minutes and needs a Windows account that is allowed to install programs.

WHAT SUPPORT CAN DO WITH IT

The agent's own catalog of commands includes: taking a screenshot of the PC, listing windows and running programs, reading files, running a command, checking the serial ports and the network, listing the monitors and their modes, reading the player's pages (the same pages as in this manual), reading the player's license record, and swapping the player for a new build with an automatic roll-back. For the scoreboard connection it can report which COM port the console is wired to and whether it is talking, without taking the port from the player.

THE AGENT WILL NOT CLOSE A RUNNING SHOW WITHOUT BEING TOLD TO

The agent refuses to close a running show program (Display Player, LedPlayer, RocketEffects, ProPresenter, OBS and similar) or to restart the PC unless support confirms it on purpose. A player swap darkens the board for a few seconds; support will ask first, and never does it during a game.

HOW TO ASK FOR HELP

1. Tell support **which PC** (the venue, and the customer named on its **Licenses** page) and what you see. Say if a game is on.
2. Have the PC switched on, awake, signed in to Windows and on the internet. A sleeping laptop cannot be reached.
3. Gather the files in chapter 14 if asked.
4. Support may ask for a short, supervised look at the screen.

WHICH COMMANDS SUPPORT USES

The list above is the agent's own catalog. Which of those commands a particular support person uses on your PC is their decision. If you bought through a dealer, **Help** names your dealer at the top, and the dealer is the first call.

CONTACT OLYMPIAN LED AND SCOREBOARDS.COM

Company	Olympian LED · Scoreboards.com
Phone	321-747-3220 (Monday to Friday, 10 a.m. to 5 p.m. Eastern)
Email	sales@olympianled.com
Web	scoreboards.com
Address	3620 S Hopkins Ave, Titusville, FL 32780

When you call or write, say which PC (the venue, and the name on its **Licenses** page), what you see, and whether a game is on.

Display Player manual. Olympian LED · Scoreboards.com · 321-747-3220 · sales@olympianled.com. Pictures were taken from a demonstration player with a fictional school.