



PiSignage

User Manual

This guide will walk you through the operational features of piSignage server application, including how to register your piSignage player, grouping of players, content upload, making and deploying playlists and overall administration of the setup.

For more details please refer to
<https://www.pisignage.com/homepage/documentation.html>.

www.pisignage.com

Introduction

piSignage is a lean digital signage player based on the Raspberry Pi hardware. The complete piSignage ecosystem has two components, viz the piSignage player (hardware & the player software) and the piSignage web application required to manage & administer the platform. (<https://pisignage.com>)

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Hosted Service (pisignage.com)

You can manage piSignage players centrally using a browser by signing up at pisignage.com. Currently 3 players can be managed free with this service. This is the recommended way to manage piSignage players and offers many features that complement the player. In addition, hosted service offers various reports.

The work flow for displaying your content on TV is as follows.

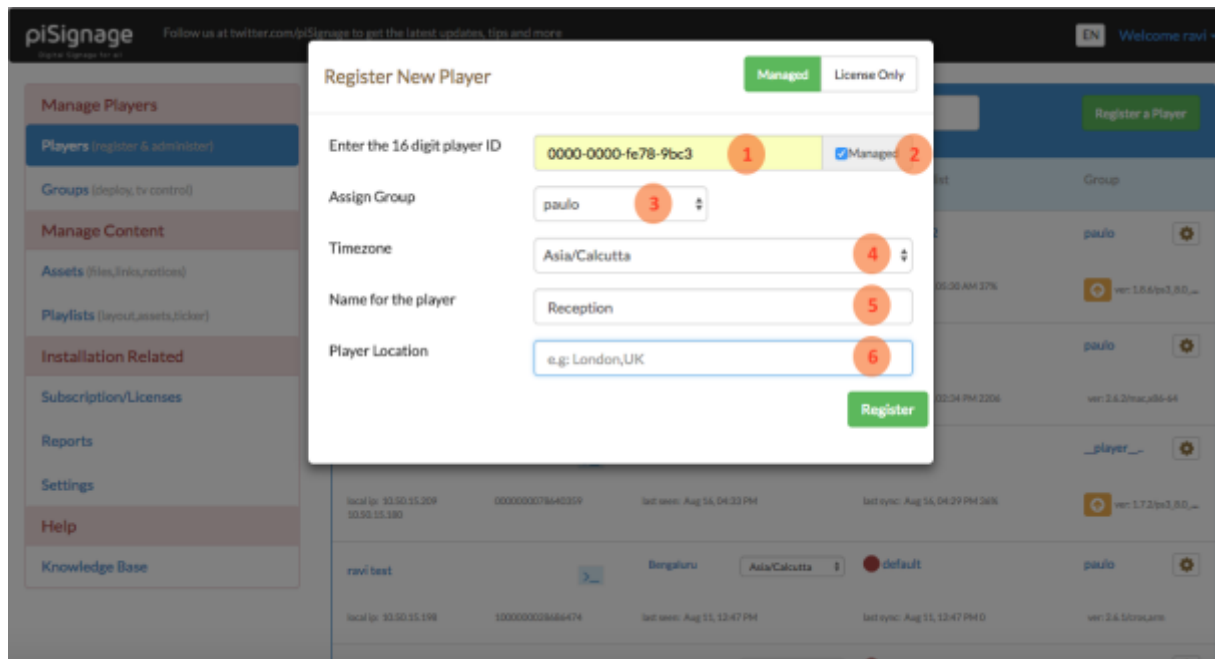
1. Sign-up and select the installation name. Default group and playlist are created.
2. Create needed Groups. Players belonging to a group will have same playlists and settings.
3. Register the players using their IDs displayed on TV. Give a name and select the group while registering.
4. Under assets tab, using Add button, upload videos, images, html files or add streaming/web links.
5. Create a playlist, select the layout and arrange assets with duration for play.
6. Under the group, select the playlists to play, schedule them if needed and Deploy.

Sign-up and create needed groups

To get started, [create an account](#) by selecting a username which is your installation name. Username is unique to you and all your player licenses are tied to this name. Select a valid email ID as all communication and licenses are mailed to this address. Once you sign-up, you are automatically logged in.

Players are assigned to groups. All players belonging to a group have the same settings and assigned the same list of playlists. Upon sign-up, "default" group is created automatically which can be used to assign players. You can create more groups if needed and assign players to these groups.

Register players



You can register a player in the [players](#) tab using "Register" button. Upon registration, player license is generated which will be downloaded to the player on next boot. You can register a player multiple times without losing any licenses or data.

Details on the screen

1. Enter the player ID displayed on the TV screen
2. Select "Managed" option
3. Select the group to which this player will belong
4. Change the time zone if needed
5. Give a name so that you can identify the player (e.g. Reception)
6. You could specify a city as the location(optional)

Note: If there are no licenses available when the player is registered, please register the player again to generate the license after licenses are bought.

Upload files and add links

The screenshot shows the piSignage web interface. On the left is a sidebar with navigation options: Manage Players, Players, Groups, Manage Content, Assets (highlighted), Playlists, Installation Related, Subscription/Licenses, Reports, Settings, Help, and Knowledge Base. The main area is titled 'Available Files (3394/153600MB)' and contains a table of uploaded files. A context menu is open over the file '01 Celebration Offer 2016_Pop Cooker.mp4', showing options: Upload Files, Add a Link, Add a Message, Create Notice, and Add Calendar. Numbered callouts (1-6) point to: 1. Upload button, 2. Assign button, 3. Edit button, 4. Add button, 5. Categories button, 6. File name.

The files (of type - video, image, pdf, html, templates, boot-up video etc.) which are to be shown in the player are to be uploaded first to the server. You can upload multiple files at a time in [Assets](#) tab using Add¹ button.

The video files which are not in mp4(h.264) format are automatically converted to mp4 format by the server after upload. The server also processes image files for optimum display, extracts metadata, creates thumbnails and validates template files. You can select the categories for the file when the upload is complete.

In a similar way, the links which need to be shown on the player are added in [Assets](#) tab using Add¹button. piSignage player supports the following url types.

- Streaming video and audio using RTSP, RTMP, Shoutcast, UDP protocols which is handled by omxplayer
- YouTube links and other livestreaming links handled by livestreamer program
- Web Link - urls which are shown in html iframe element
- Web Page - urls shown in a separate browser window to take care of Cross Origin Support
- Media RSS - Displays image and title of RSS feed
- Message - Display text message formatted by supplied CSS
- Google Calendar events

Uploaded assets can be renamed⁴ or deleted² in Assets Tab. Also an asset can be viewed and categories can be assigned by clicking the asset name⁶. Assets can be filtered and viewed based on a category by clicking Categories⁵ button.

An asset can be assigned to multiple playlists at a time using Assign³ button.

Create Playlists

The screenshot shows the piSignage interface for editing a playlist named 'Karnatak playlist'. The top navigation bar includes 'Categories', 'Search by Name', 'Make it Advt', 'Set Ticker', 'Layout', and 'Display'. The main content area lists several video assets with their respective details and duration input fields. A sidebar on the left provides navigation options for 'Manage Players', 'Assets', 'Playlists', and other system settings.

Once the needed assets have been uploaded, playlists can be created at [Playlists](#) tab. Either select an already existing playlist or create a new playlist to edit the content.

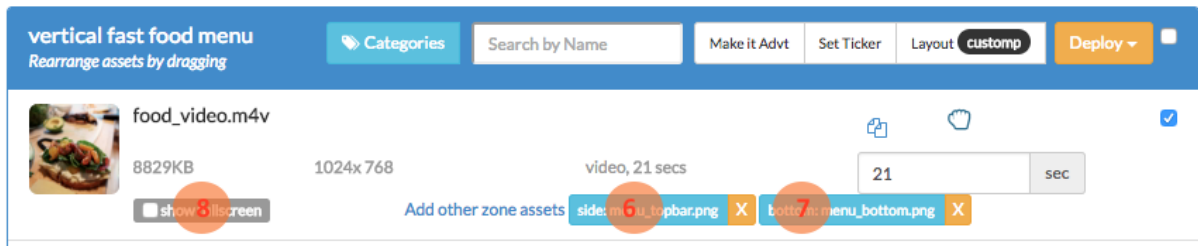
Tip: You can duplicate an existing playlist and edit the new playlist to save time. Also there is a special playlist TV_OFF which switches off TV while scheduled to play.

Asset selection

Select the assets you want to add to the playlist using checkbox² on the right. The duration³ field specifies how long an asset need to be shown. It is pre-filled with video duration for video files and default value specified under Settings tab is used for other media types. Use minimum of 20 seconds for url loading time for streaming, media rss and weblinks.

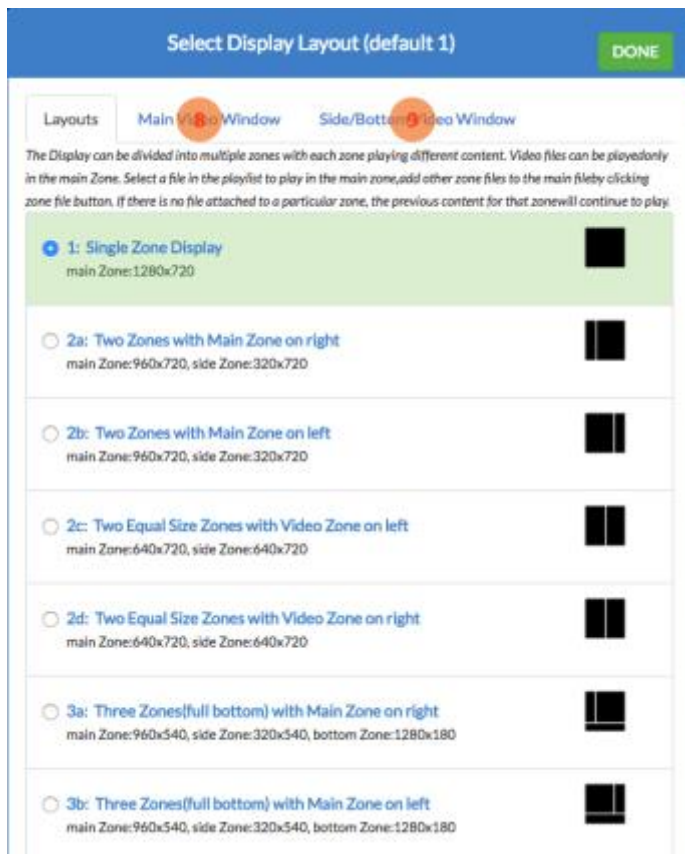
You can drag⁷ and re-arrange the assets to decide the order of play. By clicking on the thumbnail⁶, you can have a quick view of the asset.

Multi-zone



For layouts with multiple zones, zones are named as "main", "side", "bottom" (which could be on top as well!) and "zone4", "zone5" and "zone6". Select the "main" zone content in the list and add other zone content as mentioned in the same row ^{6,7}. If main zone content to be shown in full-screen, select the checkbox ⁸ below the asset name.

Layouts

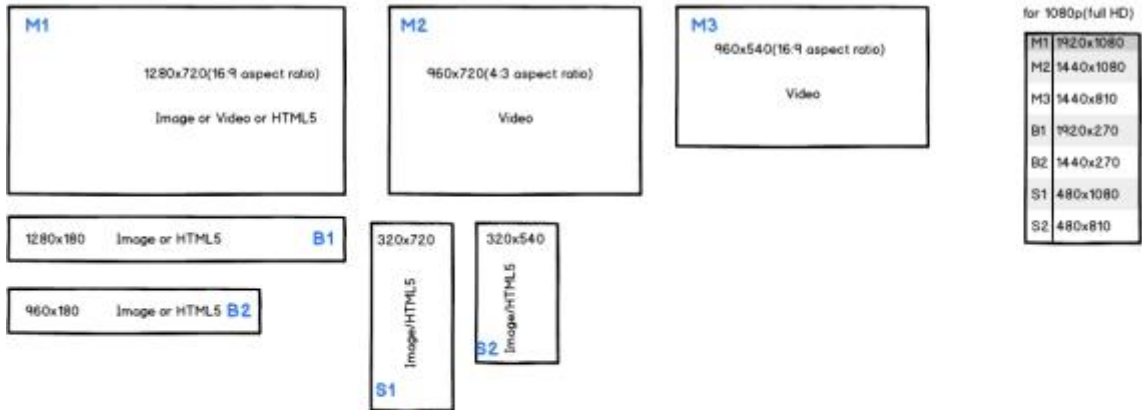


piSignage comes with many pre-defined layouts with 1,2 or 3 zones to show different content. The layout and dimensions are shown in the layout popup. More detailed layout dimensions are given in the following image. The layouts ending with "p"(2ap,2bp, customp) are for 90° rotated portrait mode. Similarly the layouts ending with "p270"(2ap270,2bp270, customp270) are for 270° rotated portrait mode. All the assets including video will be aligned to fit inside the zone.

In addition to the standard defined layout templates, custom templates can be uploaded and assigned per playlist. In addition to custom layout files, video position and size need to be defined in the layout popup ^{8,9}. The top left is (0,0) for positioning purposes.

The custom_layout files needs to start "custom_layout" text and end with .html extension (e.g. custom_layout_menu.html). The template file is uploaded like other asset files. Examples of custom layouts are available at [piSignage repository](#).

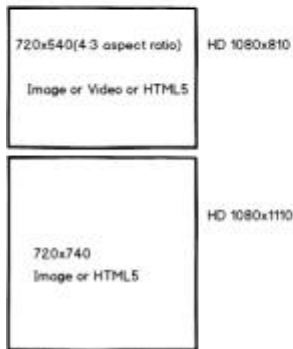
Layout Dimensions (main, Side, Bottom zones)



Different Layouts and zone dimensions



Portrait Mode



Ticker

A scrolling or sliding ticker can be added⁴ at the bottom of the screen at playlist level or at group level. The style of the ticker like font-size, color etc. can be changed by specifying CSS attributes. The ticker can have static text message or RSS feed as input.

Advertisement Playlists

A playlist can be converted to advertisement playlist using popup⁵. The assets of advert playlists are inserted at regular intervals one at a time. If the adverts need to appear only on non-main zones, select the option in the popup. The layout can be "1" or same as the

regular playlist playing. These playlists need to be added to the Group and they can be scheduled.

Deploy to Groups

The screenshot shows the piSignage web interface. On the left is a sidebar with navigation options: Manage Players, Players (register & administer), Groups (deploy, tv control), Manage Content, Assets (files, links, notices), Playlists (layout, assets, ticker), Installation Related, Subscription/Licenses, Reports, Settings, Help, and Knowledge Base. The main content area is titled "Schedule Playlists for layout tests" and includes a "Set a Default Playlist" dropdown set to "TV_OFF". Below this is a "Schedule Additional Playlists for specific Play times (drag to rearrange)" section with a table of 9 items. The table has columns for playlist name, a calendar icon, and a schedule. A "DEPLOY" button is at the bottom of the table. Below the table is a "Files to be deployed to players for the layout tests" section. At the bottom is a "Registered Players" section with a search bar and a "Register a Player" button.

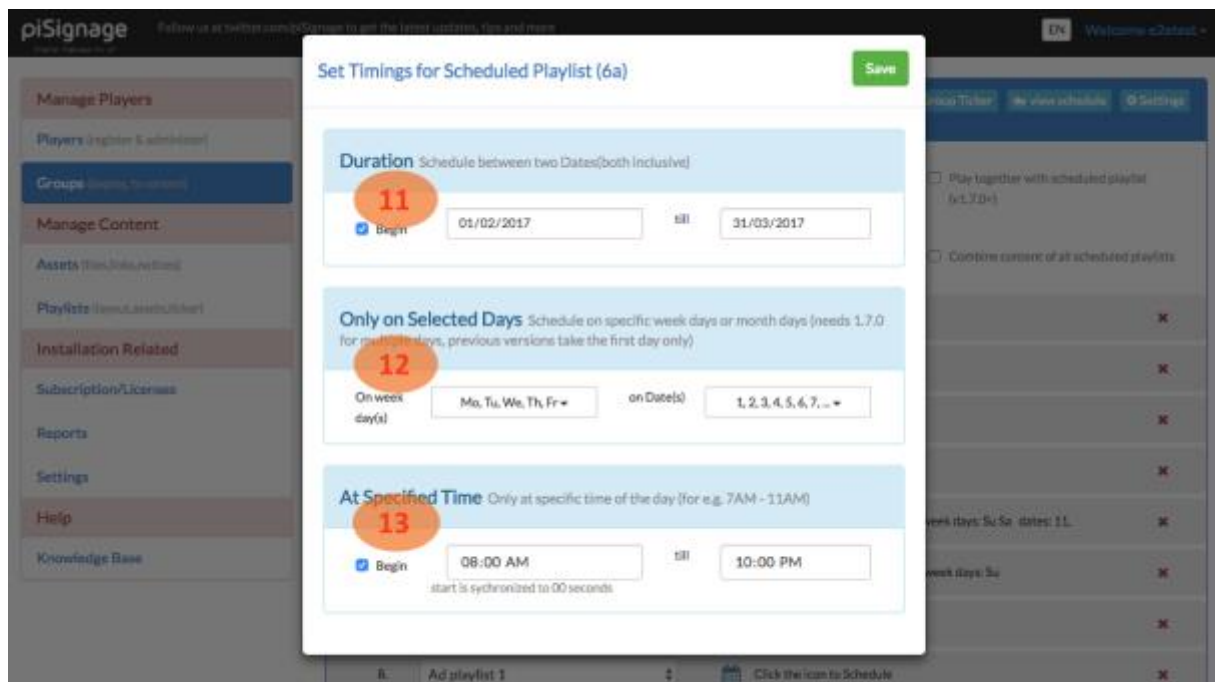
Item	Playlist Name	Schedule
1.	txt-playlist	00:00-00:00
2.	pdf test	15:00-21:30
3.	advrt break	Feb 1 - Mar 31
4.	1	week days: Mo Tu We Th Fr Sa
5.	vertical fast food menu	Feb 1 - Feb 11 12:30 - 17:30 week days: Su Sa dates: 11,
6.	da	week days: Su
7.	Image test	02:46 - 23:45
8.	Ad playlist 1	Click the icon to Schedule
9.	Ad playlist 2	

Player playlists, schedules and settings are controlled per group at the server. You can select the group for the player either during registering or in the [Players tab](#) by pressing settings icon in the player row.

Scheduling Playlists

A group is assigned with a default¹ playlist which is played when there is no other scheduled playlist is eligible to play. There is a special playlist "TV_OFF" which can be used switch off TV when there is nothing else to play by selecting as default playlist.

You can schedule additional playlists by pressing Add² button. You can add both regular and adverts playlist to a group (up to 20). By clicking the calendar icon³ next to the playlist, you can schedule the playlist to play between two dates¹¹ on particular week/month days¹² at specified times¹³ of the day. If nothing is specified it plays all the time.



The order of play is from top to bottom of the scheduled playlists(1-20) and then default playlist. When the first match occurs, that playlist is played and rest are ignored. If "Combine content of all scheduled playlists" option⁹ is selected, content of all eligible playlists (except default) are combined and played on the layout of first eligible playlist.

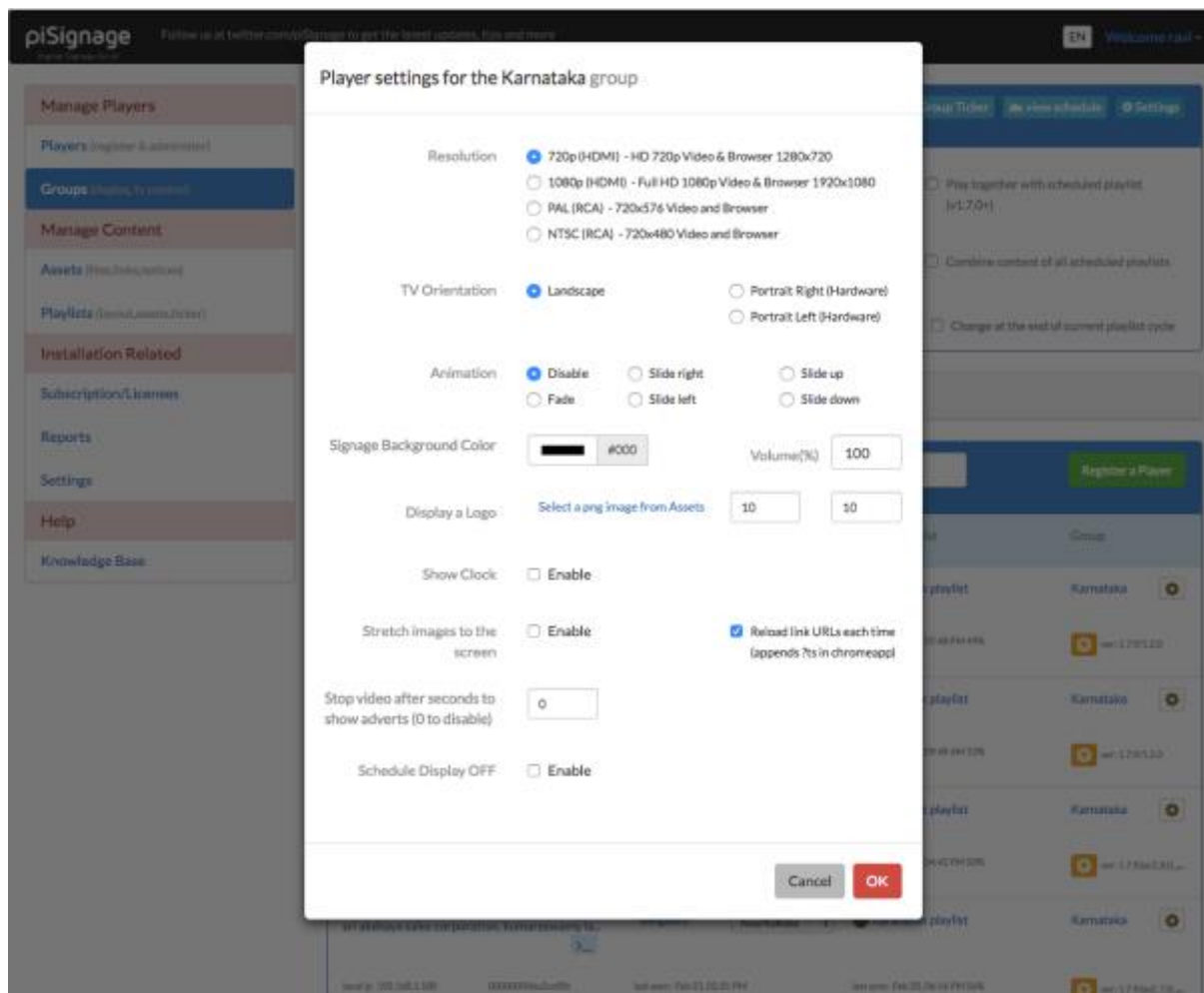
Sometimes it is useful to play a particular content of the group (e.g. hotel specific content) along with a broader audience playlist (e.g. city specific content). In that case group specific content can be set default playlist and broader playlist can be added as first scheduled playlist with no time specified. Then select "Play together with scheduled playlist" option⁸ next to default playlist row.

For smooth transition between current and newly deployed playlists, select "Change at the end of current playlist cycle" option¹⁰ next to Deploy button.

Any changes made in the assets, playlists, group settings and scheduling will be sent to players only after "DEPLOY" button⁷ is pressed. There is a "Deploy all" button under Groups tab which will deploy content to all groups.

You can set a Group Ticker⁶ similar to playlist ticker. Group ticker is shown when there is no ticker associated with playlist.

Group Settings



Group settings⁴ has most of the player settings which can be controlled by the server. Group settings overrides player webUI settings when there is a conflict. For e.g. if the Group settings for resolution is set at 1080p and player setting is changed to 720p, after reboot, the player will again go back to 1080p.

The various options available under Group settings are

Resolution	720p, 1080p, PAL or NTSC
Hardware Orientation	Orientation is set at hardware level as opposed to CSS level
Animation	SVG animation options for image/html transition
Signage Background Color	You can change the color of the TV background (default black)

Volume Control	Reduce the audio volume (default 100%)
Display a logo all the time	Add a png image of required size to assets and add here
Show Clock	A 24 hour clock shown on the bottom right. Enable ticker to show the clock when video is playing.
Stretch images to the screen	Images which are not of screen aspect ratio or of lower resolution are stretched to occupy the full screen
Reload URLs each time	Instead of using the browser cache, load URL very time for urls like dashboard (adds timestamp as query parameter)
Stop video every xx seconds	Video pauses after set seconds so that adverts can be showed
Schedule Display OFF	Powers OFF and ON at set times every day, for finer control use TV_OFF playlist

Monitor Players

The screenshot shows the piSignage dashboard with the 'Registered Players' tab selected. The sidebar on the left contains navigation links: Manage Players, Players (register & administer), Groups (display, tv control), Manage Content, Assets (files, links, notices), Playlists (layout, assets, ticker), Installation Related, Subscription/Licenses, Reports, Settings, Help, and Knowledge Base. The main content area displays a table of registered players with the following columns: Name, Location, Current Playlist, and Group. The table lists several players, including 'KVR_Sanjaynagar', 'sri akshaya sales corporation, kumaraswamy la...', 'East Play', and 'Jois Enterprises - Basavanagudi'. Red circles highlight specific features: 1. Register a Player button, 2. Edit icon, 3. Name field, 4. Local IP field, 5. Group dropdown, 6. Status icon.

Dashboard

The Players tab is a dashboard where all players can be monitored and maintained. The player status (hover the mouse on status icon for more details), last seen, last data sync

time, current playlist being played, group it belongs, software version and the location are shown for each player. Location and Time Zone can be changed if needed for the player.

The local IP address⁴ for the player and the MAC address (click on IP address to see) are also shown.

Player name can be edited by clicking on the player name itself³. *Player name is shown in yellow if there is no license associated with it.*

The player settings icon⁵ shows a popup screen where player group can be changed. If none option is selected, player can be managed individually. Players can be assigned categories like brand-name to categorize players.

When there is a software update available, a cloud icon⁶ will appear next to software version. By clicking that release notes for the new release can be seen and the software can be upgraded to stable or beta version.

A new player can be registered using "Register a Player"¹ button. If there is no player license available, you can register the player again to generate a license.

piShell



In case there is a need for player investigation, piShell can be used by pressing terminal(>_) icon². The snapshot image will be taken and shown if the player is online, otherwise previous snapshot will be shown. You can take a new snapshot by pressing "Take Snapshot" button.

Linux bash shell commands can be issued by typing the command at the input box. To see the player log, you could use "tail -200 /home/pi/forever_out.log" command.

Subscription/Licenses

piSignage Follow us at twitter.com/pisignage to get the latest updates, tips and more. EN Welcome ravi

Manage Players

- Players (register & administer)
- Groups (deploy, tv control)

Manage Content

- Assets (files, links, notices)
- Playlists (layout, assets, ticker)

Installation Related

- Subscription/Licenses**
- Reports
- Settings

Help

- Knowledge Base

Managed Players

Total Managed Licenses Available	150 4	Available Storage	153600MB
Managed Licenses Issued	136 View		
Available Player-Month Credits	53 5	Free Credits	36
Next Billing	01 Mar 2017	Next Free Credit	01 Jan 2018

Any discrepancies please write to support@pisignage.com

Purchase Managed Licenses
Purchase includes player license and 1 Year subscription at pisignage.com
(Please select quantity in next page after pressing Buy Now, after purchase at PayPal site return to pisignage.com for auto update of licenses)
[Buy Now](#) **1**

Subscription Renewal
You can purchase in multiples of 12 player-month credits to manage at pisignage.com
(Select quantity after pressing Pay Now)
[Pay Now](#) **3**

Non-managed License Only Players

Total Licenses Available	150
Licenses Issued	18 View

Any discrepancies please write to support@pisignage.com

Purchase Licenses Only
These players are not managed at pisignage.com
(Please select quantity in next page after pressing Buy Now, after purchase at PayPal site return to pisignage.com for auto update of licenses)
[Buy Now](#) **2**

Customized Plans or Storage needs

If customized plans are needed or in case of more storage requirement, please write to us at sales@pisignage.com or by filling [Contact us form](#) with your contact details, number of players to be managed and storage requirements.

piSignage pricing has two components.

1. Player License is priced at one time fee of USD25. When a player is registered at pisignage.com, a license file is generated and same will be automatically downloaded to the player. If the license file is not present, player will show a ticker. You could purchase player licenses bundled with 1 year subscription as managed license ¹ or as player license ² only (if you are using open source server to manage).
2. Subscription service at pisignage.com: A player needs 1 credit every month to manage. When you purchase managed license ¹ at USD45, it includes 1 year subscription (12 credits) along with player license. After 1 year, you can purchase subscription renewal ³ at USD20 which adds 12 credits to your account.

You can check your total purchased licenses and available licenses/credits in this tab. Also you can download the license files generated anytime.

Installation Settings

Installation level settings are available under [Settings](#) tab. Here you could

1. Add collaborators and set their access rights to different tabs.
2. Set user name and password for downloading content to players and webUI access.
3. Default duration for playlist slides.
4. Custom logo and url to be shown as part of server UI
5. Hide system messages on the screen (e.g. Download in Progress message)
6. Delete the registered players (please write to us at support@pisignage.com for license redemption).

Reports

Various reports can be viewed and downloaded at [Reports](#) tab. Reports can be generated for various durations and include

1. Monthly reports for Player, Files and Billing stats
2. Events
3. Files played stats
4. Player related stats

Various selection parameters are possible like player, duration for report generation.