GASPmedia (www.gaspmedia.net) is a professional solution including different software components. It is finalized to realize and maintain a “digital-signage” systems.
The concept of digital-signage is relatively new in the market. It requires understanding some key points:

Scope of this document is to explain and clarify the main principles behind the concept of digital signage. A description of the features included in the GASPmedia platform will be provided as well.

What is digital-signage

The **digital-signage** is a modern form of advertising based on digital display technology: the contents are shown to end-users through electronic screens or projectors located in public places. Digital-signage is synonymous of videoposter, digital billboard, digital advertising.

In the most simple implementation a digital signage system consists on a device-player (for example a personal computer a videotape or DVD reader) connected to a digital display.
The display can be a LCD or plasma screen (any size) or a video-wall (a wall covered by of a number of screens linked together).

Initially the advertising contents were stored over VHS or DVD supports resulting with time-consuming in content production, content distribution and upgrade.

In recent years, several factors have made the digital-signage a more powerful and attractive product:
-Internet access available almost everywhere.
-High speed Internet network.
-Wide size digital screen.
-PC with enhanced performance in terms of hard disk, CPU, graphic board.
-PC ever smaller.
-New audio and video format with high compression ratio.

The digital-signage offers two main advantages:
· The billboard don’t need to be upgraded manually
· To disclose a specific message in a certain place at a particular time.

The advertising based on digital-signage solution has a better quality-price ratio in comparison to the investment for the traditional billboard. Furthermore the digital-signage capability and flexibility allows to apply changes in the content very quickly according the application required.

It is possible to display a wide variety of contents, from simple text messages or static pictures up to movies/video clips (with or without audio) or animated objects useful to stimulate people attention. Furthermore, informative and entertaining contents can be mixed together (eg news, economic, cultural, social information).

With a professional "digital-signage" platform it is possible to create audiovisual contents (eg. showcase with scrolling content, video-poster) reproduced on LCD/Plasma screen or projected on walls or surfaces. Mass communication will result effective and efficient comparable to that one of TV.

Contents can be managed by application programs installed on a personal computer or other equipment, allowing individuals (or workgroup) to edit the content quickly and efficiently from a remote location connected via Internet or LAN.

The main application fields of digital-signage are the following ones:

· **Information**: to provide information about products, how to install use and maintenance specific products, news, weather forecast, time…..
· **Promotion**: to inform the customers about discount, special offer…
· **Training**: to train sales staff about the use and maintenance of certain products, the use of new technology ...
· **Emphasis**: to underline the customer satisfaction through the use of movies describing context and scenarios where solutions have been positively applied.
- Drive the customer behavior

How to choose a digital-signage system

The choice of digital-signage technology depends on the operative scenario:
For example, if the objective is to spread an inner corporate communication, we can reach the goal by using a screen with medium-large size located in the public spaces, like canteen or coffee break zone.

If the case of advertising campaign (for example in a shop, show room, etc ….) small size monitor with speakers is the optimal solution. Totem with embedded monitor is another possible solution.

Depending on the geographic size of the data network, the content management can be performed remotely (eg. by a centralized point), locally (eg: local offices are responsible of the local content management) or a mixing of the two.

An important key factor to be considered is the choice of the software infrastructure:

- it should be **easy** to use, content management should be performed also by people without specific technical knowledge and experience.
- It should guarantee **modularity** and **scalability** in terms of complexity and functionality .

For example, it should be possible to add, replace or remove part of the content in short time without the need to re-design the whole content. Just think about situations where a sponsor advertisement needs to be inserted “on the fly” inside a specific time windows before being removed. Or alternatively, let’s think about the need to add music or scrolling text about the last TV news.

At the same time it is requested the possibility to create a **palimpsest** where the content can be planned on a hour basis, daily, weekly, monthly, by considering also special events, holidays or national festivities.

Finally, the selected digital-signage platform must provide a complete solution with high flexibility, short time planning, low complexity. Pay attention that the provider has fully control of the technology in order to guarantee constant evolutions and periodic upgrade to fulfill the new needs and requests coming from the market.

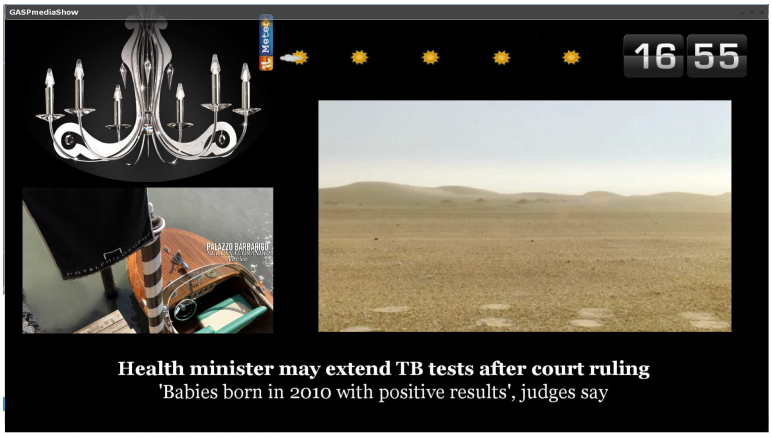
GASPmedia

The solution for digital-signage **GASPmedia** is based on a different approach to content management:
- High flexibility while designing the **environment** through a simple splitting of the screen area into smaller areas where multimedia contents will be displayed.
- Integration with a wide variety of external data source.

GASPmedia can handle the following kind of contents :

- Pictures or sequence of pictures;
- Movies or sequences of movies;
- Music playlists or gingles;
- Dynamic data collected from files or requested via WEB services;
- RSS Feed: sequences of messages with predefined content or collected in real time from internet sites;
- Counters for managing queued people waiting to be served;
- Reward system;
- Digital TV channels;
- Internet WEB site contents;
- Dynamic data collected from other GASP systems or other external sources;
- **GASPget** objects;
- PDF documents;

The content display can be based on a Totem/Video projector/ PC monitor/ TV monitor connected with a PC.


GASPmediaShow
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Health minister may extend TB tests after court ruling
'Babies born in 2010 with positive results', judges say

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Contents can be managed and planned by means of a software application called **GASPmediaREGIA.**

Pictures.

The following standards have been supported: **jpg, gif, png**.
For each picture we can set up the time of persistence (i.e. the time for which the image is retained on the screen). It is possible to display the picture at specific time and date independently on the planning currently displayed. It is possible to display flash animation over the picture, in order to show further details or explanation about the picture itself.
The background can be colored or transparent.

Movies.

The following standards have been supported by **GASPmedia**: Flash Video (**flv, mp4**).
For each movie or video clip we can set up the time of persistence (i.e. the time for which the image is retained on the screen). It is possible to play the movie or video clip at specific time and date independently on the planning currently displayed.

Music Playlist.

It is possible to create playlist to be linked to the **projects**.
More than one playlist can be associated to a single project.
According the planning set up, the audio level can be focused on music playlist, movie or TV program.

Dynamic Data from structured files or Web Service and areas synchronization.

Dynamic data can be handled only after being associated to a picture.
Any picture can have associated data. In such case, the data content is displayed only in correspondence of the associated picture.
For example: let's suppose to display a sequence of "**objects**" with the associated price. Anytime a new picture is displayed the corresponding price should be shown, it means that pictures and data must change in a synchronized manner.
Data can be collected also from other **GASPmedia** as in the case of counters for managing queued people in different departments.

RSS feed (Really Simple Syndacation) .

Scrolling text where the content is predefined or imported from internet Web sites.
Scrolling speed and time of persistence can be set up.

Counter and e rewarding system.

In the case of people in a queue waiting to be served, a ticket number is emitted to handle priorities. The ticket can be printed by **GASPmediaTOTEM** or any other system.
A counter can be associated to a specific area in the screen, showing the number of the currently served user. The number can be incremented by using a remote control or by software procedure.

It is possible to enable a rewarding system, thanks to which, once in a while a user can win a predefined premium. The winner is chosen randomly. At the winning-event is associated a project which is responsible to highlight the winner and the sponsor of the game.

TV channels.

A TV signal (DVB-T standard) can be associated to a specific area in the screen.
The selected TV channel can be permanently displayed or activated inside predefined time window.
The channel selection is allowed by means of **GASPmediaREGIA** where TV channels and frequencies are identified (usually frequency are changing from zone to zone).

Internet site contents.

It is possible to link web pages in internet. The page content is displayed according the value of specific parameters.

GASPjet objects.

It is possible to display objects specifically created to shown special contents like for example: watch, weather forecast, horoscope…etc

PDF Documents.

PDF files can be shown in one or more areas inside the screen.
For each PDF file we can set the range of pages to be displayed and the time of persistence of each page.

Proximity detection. (this function is not yet ready. It is under design).

Equipment for detecting the presence of a person can be integrated with GASPmediaAPPLIANCE.
In the case a person is detected a specific project can be triggered.

Query by SMS (this function is not yet ready. It is under design).

The PC where **GASPmediaSHOW** is installed, can be equipped with a GSM SIM card.
A user in front of the screen can send an SMS to a predefined number (the number should be clearly visible on the screen). When the SMS is received a number of events can be triggered according the SMS content:

- By sending the product code, the screen shows product information, availability, address where product is available etc……
- By sending the e-mail address, the user get detailed information or the link to WEB site on its email accounts.
- By sending the name of the city and a building category, the user get information about the housing market and opportunities in the requested zone. Info are collected from a Database accessed via WEB Services.
- By sending the code of department, the user get information about the offers and opportunities in the requested department.
- By sending an empty SMS, the user get information about offers and promotions

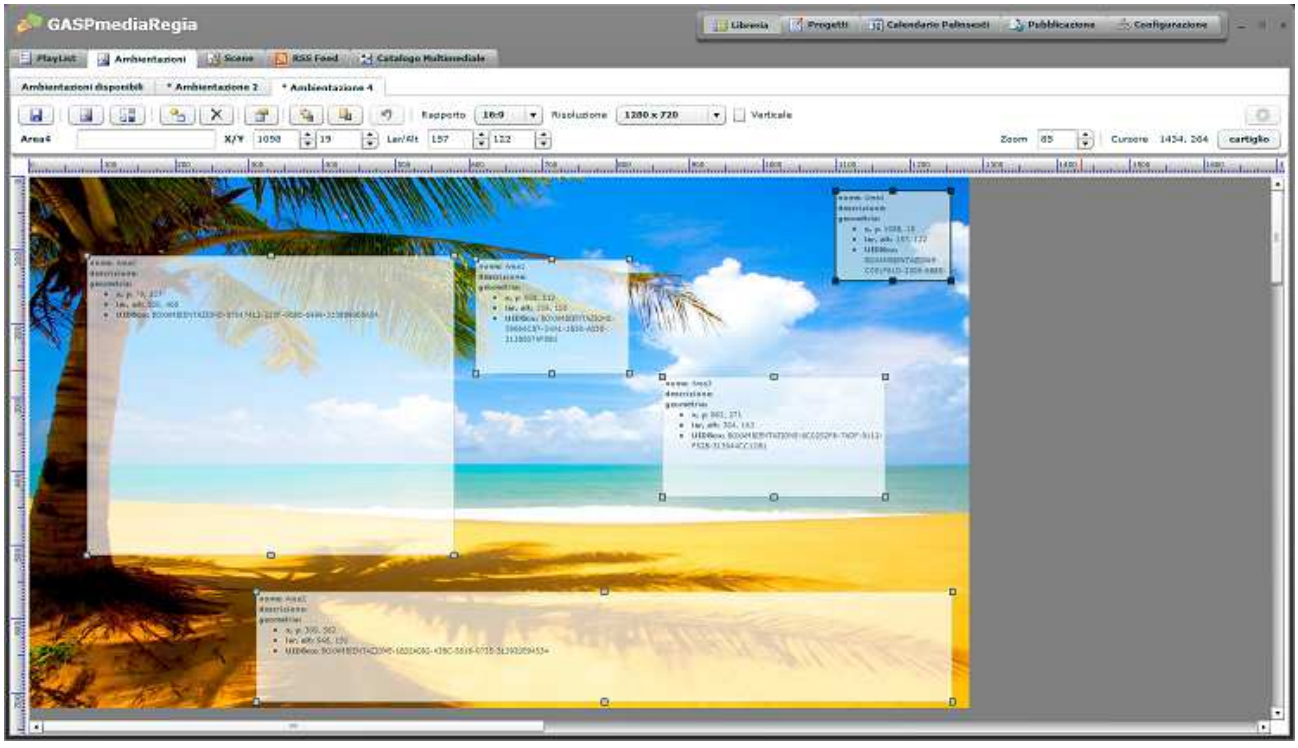
The SMS traffic is logged and available for analysis and statistics.

GASPmediaREGIA

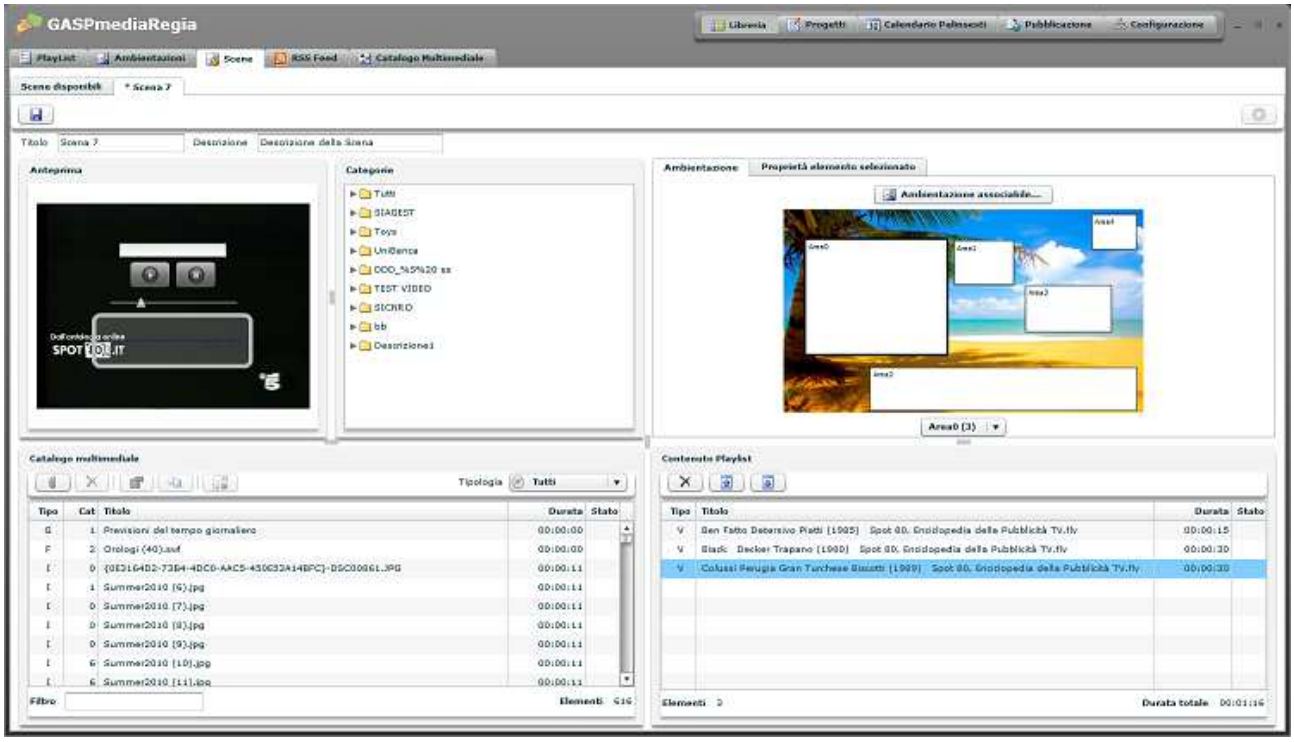
GASPmediaREGIA is the software for planning the contents. It allows to design **Environments**, **Scenes**, **Projects** and **Palimpsest**. **GASPmediaREGIA** allows to preview the result and distribute the planning.

It is easy to use and simple to understand, it does not require specific technical skills and knowledge. The user interface is intuitive and user friendly; learning the use of the tool requires short time.

The planning is based on the following concepts:
Environment: it defines the background and the division of the screen into smaller areas.
Scene: it defines the content to be displayed on each area. The main parameters associated with the selected content need to be set up: time of persistency, number of repetitions, etc…

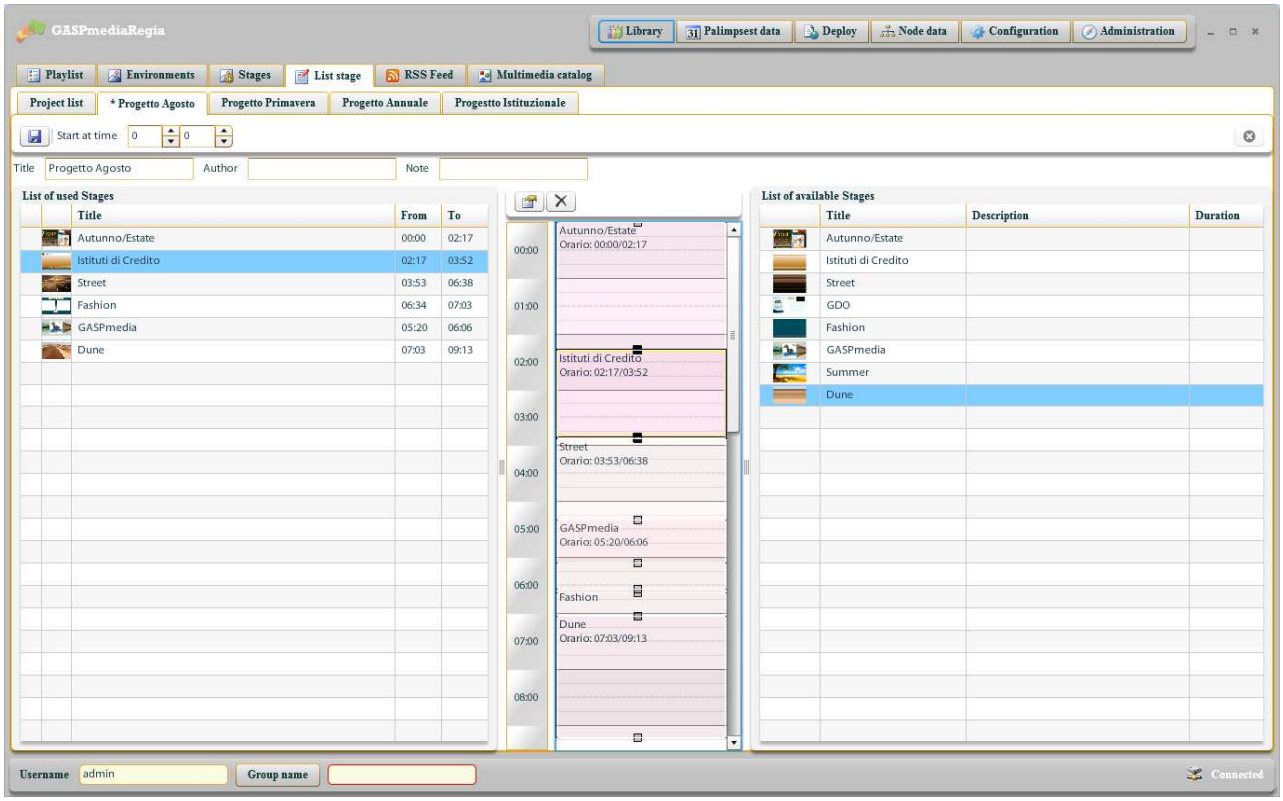


Environment



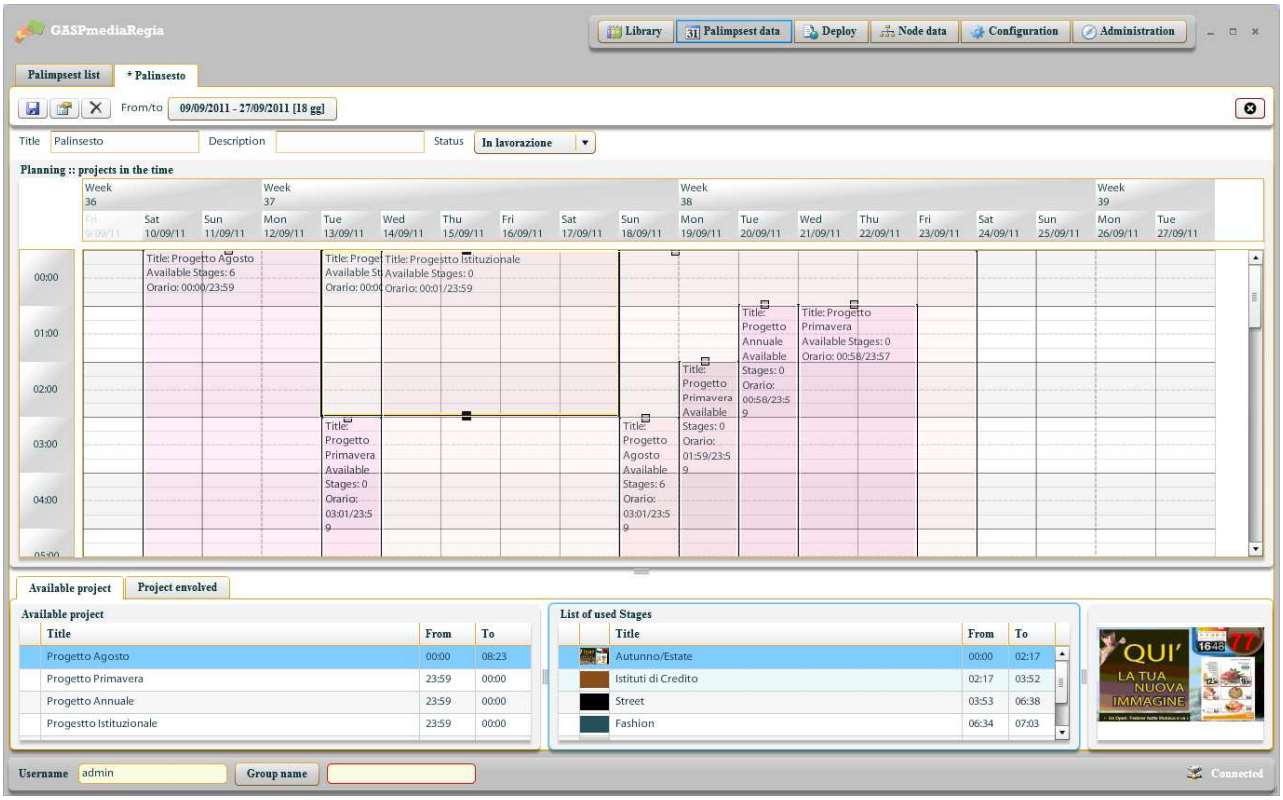
Scene

Scenes are grouped into **Projects**. The scenes inside the project are linked to specific time windows defining the time range where the scene is displayed.



Project

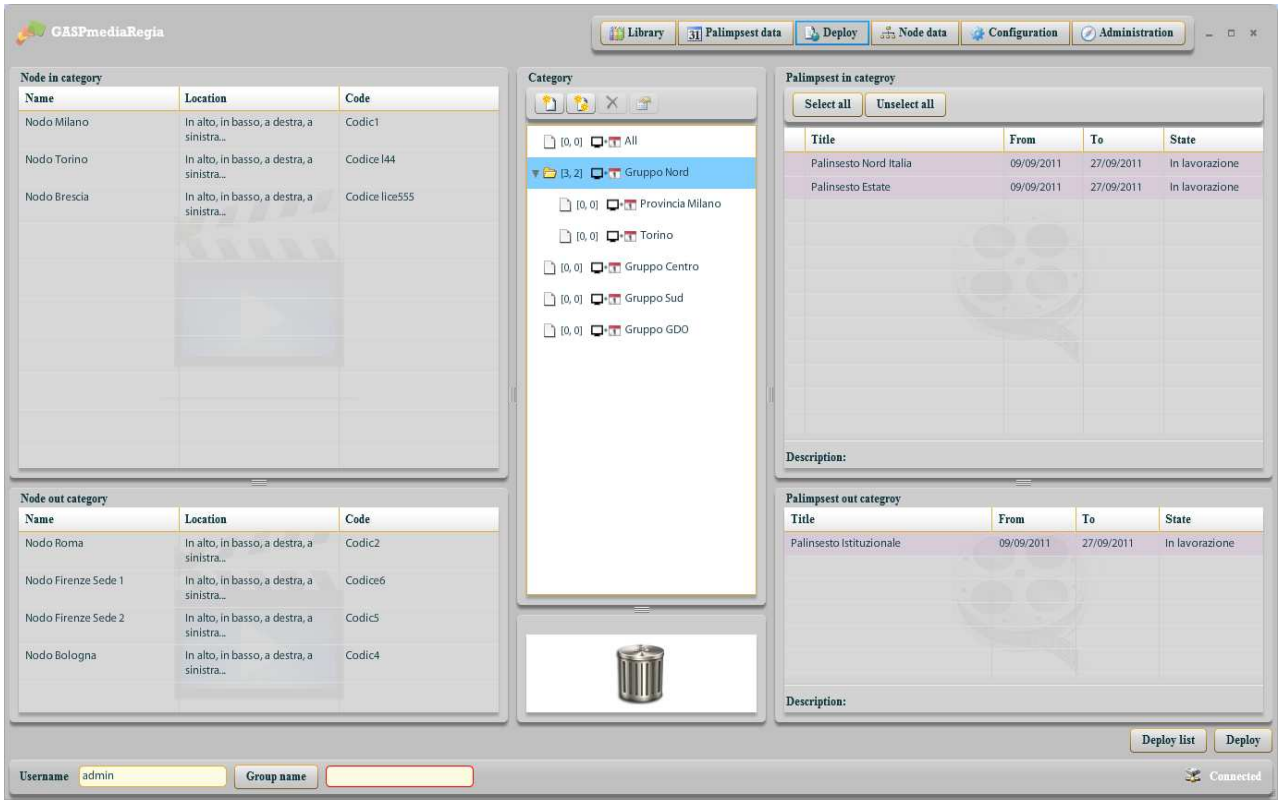
Projects are grouped into **palimpsests**: projects inside palimpsest are planned on a daily, weekly or monthly basis.



Palimpsest

GASPmediaSHOW equipments are visible to **GASPmediaREGIA** through the local area network or internet. Projects and palimpsests can be managed by a local **GASPmediaREGIA** or by a remote centralized **GASPmediaREGIA** able to distribute the contents toward peripheral screens.

By means of specific functions (manually or automatic), palimpsests are moved from Personal Computer/ Server where **GASPmediaREGIA** is installed toward PC/PCs hosting the **GASPmediaSHOW**.



Publication

Once the planning (project and palimpsests) is completed it needs to be published (i.e distributed). Distribution can happen immediately or delayed according a defined scheduling.

GASPmediaSHOW is responsible to play the planned content. The planning can be executed as soon as the it is received by **GASPmediaSHOW** or it can be delayed according a defined scheduling.

Infrastructure