InfoPLAYOUT

iB® InfoBASE
SOFTWARE ENGINEERING

CONTENTS

WE SET THE STANDARDS

1/ Is InfoPLAYOUT for YOU?

Do you have a Digital Ad already?

Do you use or plan to use LCD and/or Plasma-screens, LED-walls or beamers for commercial or just informative purposes?

Do you want to create impressive presentations for your clients, employees or specific target groups in an easy and professional way?

Even though you may feel pretty confident about your presentation style – it is always possible to make it better …

...Let us introduce you our product...

2/ InfoPLAYOUT
- and your message will be viewed

The phrase "A picture says more than thousand words" is a principle always used by advertising. This is a reason why until today billboards are one of the most popular advertising media.

But there is an improvement for an image: the movie!

Moving images cast a spell on people. No wonder that digital signage systems capture more and more our every-daily life.

In a station or on an airport: digital signage systems shorten the sensed waiting period and prevent effectively boredom.

Or in a shopping mall: displays at point of sales will be used as a new kind of product presentations.

Also advertising agencies now are using the new possibilities of this advertising platform, but they are just at the beginning to comprehend the possibilities of digital signage.

With such a general creative tool you cannot show only advertising spots – well-known from TV - no thanks to create a sensation with eye-catcher you will generate fascinating sights. Because of changing easily the content, the tool will be always up to date and surprisingly.

However, somebody who presents his products with this modern method will get a deciding competitive advantage and can save costs compared with creation of classical advertising media.

Whether using as brand advertising, product presentation, visitor guide- or entertainment-system – the billboard from tomorrow performs a lot more!

Our software product **InfoPLAYOUT** - together with the hardware (PCs and screens) – offers the digital signage solution for up-to-date multimedia presentations.

Beside the real information options **InfoPLAYOUT** provides a large variety of user-friendly options and allows thus to utilize the advantages of digital image processing to the fullest extent, dynamically and in a very diversified and professional way. We can ensure you that InfoPLAY-OUT will help you to attract customers and increase interest in your products, which is one of the main reasons to use multimedia presentations at the first place.

The **InfoPLAYOUT** system has been developed in cooperation with the specialist on digital advertising from Germany and Switzerland. Interviews with businesses and users of digital advertising about their needs, desired features and problems that they encountered when using existing products, helped us to develop a product, which offers maximum flexibility in creation and management of the digital onscreen presentations.

As display units are becoming still cheaper and bigger, digital signage systems are used in many areas of our every-daily life. Information and/or advertising systems are utilized by service providers (hotels, banks, congress centers, airports, gas stations), professional advertising agencies, city/urban area developers; or during large scale public events such as business fairs (booth presentation) or exhibitions.

If you decide to purchase our product - the **InfoPLAYOUT** system - you will benefit not only from high flexibility and robustness that our system provides, but also from significant cost reduction, mainly thanks to the following advantages of our product:

- diversification into customized packages (**InfoPLAYOUT** Light, Standard and Professional, **InfoPLAYLIST** and InfoMEDIALIST)
- investment security because of generally possibility of upgrading **InfoPLAYOUT** system
- small staff requirements for the administration of the entire system
- manageable support by the system supplier during the operation period

InfoPLAYOUT – The Key Features: *digital signage software*

- The system ensures the full-capacity utilization of the digital screens through maximum usage of the multimedia formats (23+).
- The management and administration of the onscreen presentations is done from a central place.
- The content of the presentations can be changed easily and quickly online.
- All information about the system status can be queried real-time and will be written in log-files for reports.
- In cases of emergency (e.g. fire alarm), alerts can be shown immediately instead of the onscreen presentations.
- Reports about the played media (videos, images, etc.) can be created.

3/ What Does InfoPLAYOUT Provide?
– Robustness and Flexibility.

InfoPLAYOUT is a system based on the modular components, which provide robustness and flexibility to any user. Each module implements a precisely defined function to guarantee the maximum operation time for the onscreen presentations.

Using different modules, the system administrator can manage and control an onscreen presentation in the central network, and manage the media files and their distribution to the particular InfoPLAYER (player location).

Information and media can be easily updated online through Internet/Intranet according to the specified system access rights for different users.

The **InfoPLAYOUT** system contains 7 basic modules:
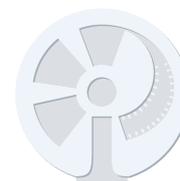
InfoMANAGER / InfoPLAYLIST
- Administrative tool: Creating, managing and controlling the presentations.

InfoWEB
- Online information input and updating files through Internet.

InfoCONFIGURATOR
- Setting configurations for all the system components (modules) and configurations for each distribution path into a particular physical location (particular InfoPLAYER) within the distribution network.

InfoDISTRIBUTOR
- Data distribution between the server and the player units (particular InfoPLAYER).

InfoPLAYER
- Playback of the presentations on the display unit (TFT-, Plasma screen, etc.)

InfoSTATUS
- Monitoring tool for the **InfoPLAYOUT** components.

InfoAGENT
- Download and customizing tool for online sources, i.e. stocks information.

4/ General Overview of the System – System Requirements

The schema below describes the structure of the entire **InfoPLAYOUT** system:

Server
InfoDISTRIBUTOR
Database

TCP/IP

LAN, Permanent link, DSL+VPN, UMTS/EDGE+VPN

LAN

Distributor Server
InfoDISTRIBUTOR

Player
InfoPLAYER
InfoDISTRIBUTOR
InfoWATCHDOG

Player
InfoPLAYER
InfoDISTRIBUTOR
InfoWATCHDOG

Player
InfoPLAYER
InfoDISTRIBUTOR
InfoWATCHDOG

Player
InfoPLAYER
InfoDISTRIBUTOR
InfoWATCHDOG

Work Station
InfoCONFIGURATOR
InfoMANAGER
InfoSTATUS

WEB Server
InfoWEB

WEB Client

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infoPLAYOUT

COMPONENT	MODULE	SYSTEM REQUIREMENTS
Server	- **InfoDISTRIBUTOR** - **InfoWEB**	*Server:* - Microsoft Windows Server 2008/2012/2016 - IIS mit Web- and FTP-Service - PHP 5.6.20 - Oracle Database 11g/12c R2 Standard Edition (One)/XE
Distribution server	- **InfoDISTRIBUTOR**	*Distribution server:* - Microsoft Windows Server 2008/2012/2016 Windows 7 Professional - IIS mit FTP-Service

Player	- **InfoPLAYER**
	- **InfoDISTRIBUTOR**
		Hardware:
		- Intel Core i5 mind 2.0 GHz
		- 8 GB RAM
		- Intel HD Graphics Onboard
		- TV-Cards:
		  Hauppauge WinTV-HVR-930C-HD (DVB-T / DVB-C / Analog);
		  Hauppauge WinTV-HVR-5500 (DVB-T / DVB-C/Analog);
		  AVerTV Hybrid Volar HD (DVB-T/ Analog);
		  Technotrend TT-connect S2-3650 (DVB-S)
		- Hard disk drive: 250 GB
		
		Software:
		- Windows 7/10 Professional 64bit IIS with FTP-Service
		- Adobe Flash Player
		- Microsoft PowerPoint Viewer
		- Adobe Acrobat Reader

WEB Client	- **InfoWEB**	*PC:* - Web-Browser: Mozilla Firefox or MS Internet Explorer
Workstation	- **InfoMANAGER** - **InfoCONFIGURATOR** - **InfoSTATUS**	*PC:* - Microsoft Windows 7/10 Professional - Oracle Database 11g R2 Client

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5/ Management tools
a) InfoMANAGER

InfoMANAGER is the control module of the entire InfoPLAYOUT system. It administrates when, where and which multimedia files (henceforth "media") are played. The module assigns a play-list to each player for each day. The playlist together with the media defines the daily program, i.e. the actual onscreen presentation shown on the display. The main task of the InfoMANAGER module is to generate and manage the playlists automatically in a user-friendly way.

PROGRAM STRUCTURE

digital signage software

- The program structure is specified as a daily program. It contains basic program blocks – layouts ordered by time. Multiple media formats can be combined in one layout. For each media the position and size on the screen can be specified. Besides, the multiple media can overlap on the screen – layering.

The layouts are created in the layout editor that allows changing time and position of the media easily using mouse or keyboard. The completed layout can be reviewed and visualized by the preview-function.
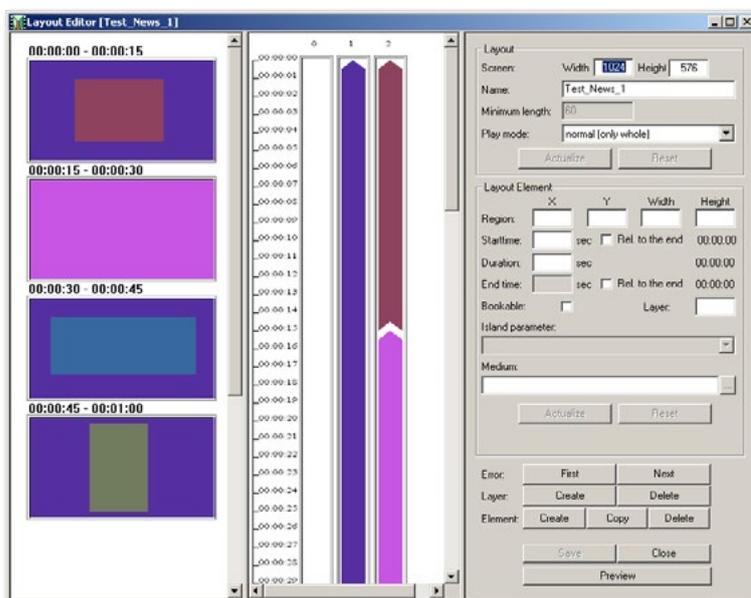
When creating a daily program different layouts can be used and/or combined together. The most important advantage is the possibility to separate graphical elements from the actual content, so you can use the layouts as templates in different contexts.

Some media are used repetitively (fixed media) – e.g. background, company logo, clock; others just once (variable media) – e.g. information (news, ticker), advertising spots. The content of the variable media is specified when creating a playlist (Standard version) or automatically according to the valid orders (Professional version). This mechanism facilitates creation of the uniform graphical onscreen presentations (corporate identity).

Examples of layouts:

- Display of a static image, e.g. company logo (on the left side of the screen)
- Display of a video, e.g. advertising spot (on the right side of the screen)
- If necessary a ticker (single-line text moving on the screen) can be used to display e.g. news, product offers or contacts (allows free positioning on the screen)

Static area

Video, TV...

Fullscreen-Video, TV
Split of four screens

Ticker

Through InfoMANAGER the system administrator can automatically and centrally manage the media and the playlists and minimize thus user errors.

CONTENT MANAGEMENT SYSTEM

All media files are stored on the central server and are registered in the database.

The CONTENT MANAGEMENT SYSTEM allows:

- inserting and deleting media or changing media attributes
- checking the file format
- a comfortable media search
- preview of each media
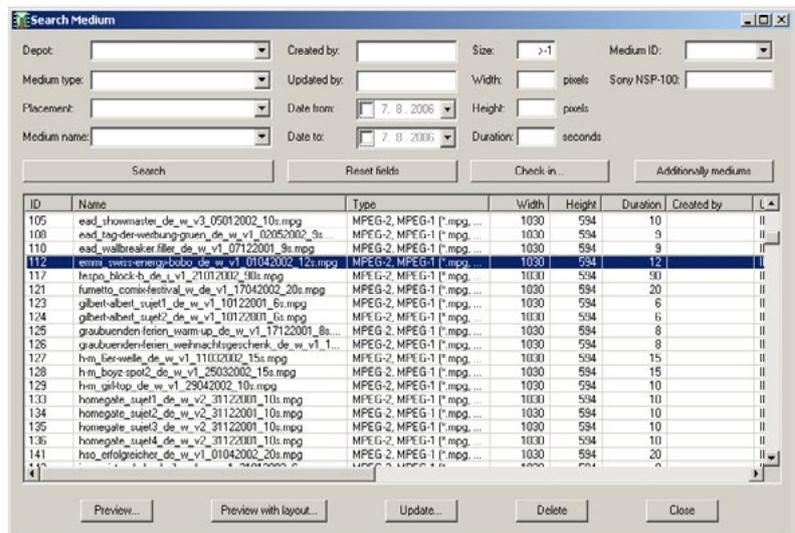
PLAYLIST MANAGEMENT

The PLAYLIST MANAGEMENT controls the actual content of the playlists for a given date/time and player, resp. channel.
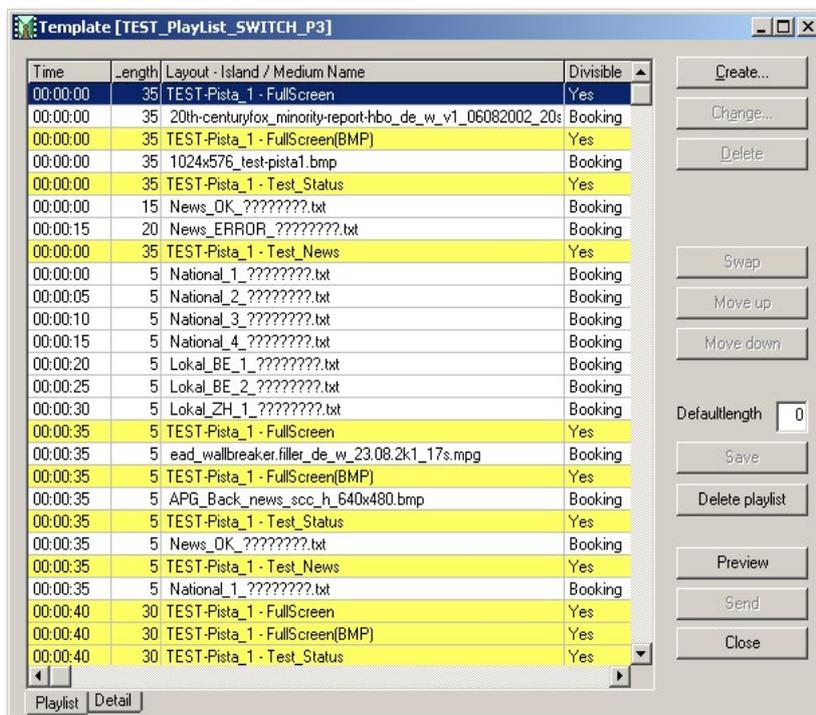
In this part of the system the administrator specifies the media to be played, their length (duration) and the order in which they should be played.

PLAYLIST MANAGEMENT also allows:

- automatic distribution of data to each player by the InfoDISTRIBUTOR module
- program log file analysis (reporting errors and verifying which media have been already played)
- creating reports according to the different selection criteria

In the Standard and Professional versions, InfoMANAGER offers also the following options:
- exporting data in XLS-format (all data stored by InfoMANAGER in a table-format can be transferred with a mouse click into Microsoft Excel).
- setting different system access rights for multiple users
- archiving old data (files and database tables)

digital signage software

In addition, InfoMANAGER in the professional version also offers:

MARKETING MODEL

The marketing model determines the price of a displayed advertisement for each channel, hour and spot on the screen, either separately or these criteria can be combined into packages - nets.

The nets have their own special prices. They allow the operator to fill the time slots more evenly.

RESERVATION-SYSTEM

Based on the various input criteria (e.g. time, day, channel, length or type of the presentation etc.) the reservation system allows a user to order or book free time slots for a specific time period and for one or more channels at the same time.

The orders can be also made according to the selected nets.

The reservation system works in the following way: Given the input criteria above, the system generates a booking request and provides a detailed summary of the order (i.e. on which channels and at what time the media should be played). If requested time slots are available, the system validates the order and makes the reservation. Afterwards it reports what percentage of the order is successfully reserved.

To make the reservation process easier and more convenient, InfoMANAGER provides an order overview with several user-friendly search functions. In addition, InfoMANAGER can produce the schedule of ordered time slots together with weekly or hourly reports.

The playlists are generated automatically according to the reservations/orders made. Afterwards, no additional manual assistance is necessary but it may be provided if desired. The creation and distribution of the playlists can be also implemented as a batch job overnight without any user interaction. The batch job can send an e-mail to the administrator with the following information:

- list of reservations with expiring date
- list of orders with missing (not yet delivered) media

In addition, InfoMANAGER has a special function to generate the playlists: Fill-trailers. This function allows that free time slots in the playlists are automatically filled with the user specified selections of existing media (fill-trailers).

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b) InfoMEDIALIST

InfoMEDIALIST is the user friendly and web based management tool of InfoPLAYOUT system. It is managing in a Oracle database when, where and which media should be played.

The media which should be played – videos, pictures, TV channels, html pages – can be checked into the digital signage system including the file format check. If the check in will be successfully the media can be assigned one or more channels.

Different properties can be set for the media – layout, time period, used weekdays.

The playlists are generated automatically in loop technology for each channel subject to the assigned media.
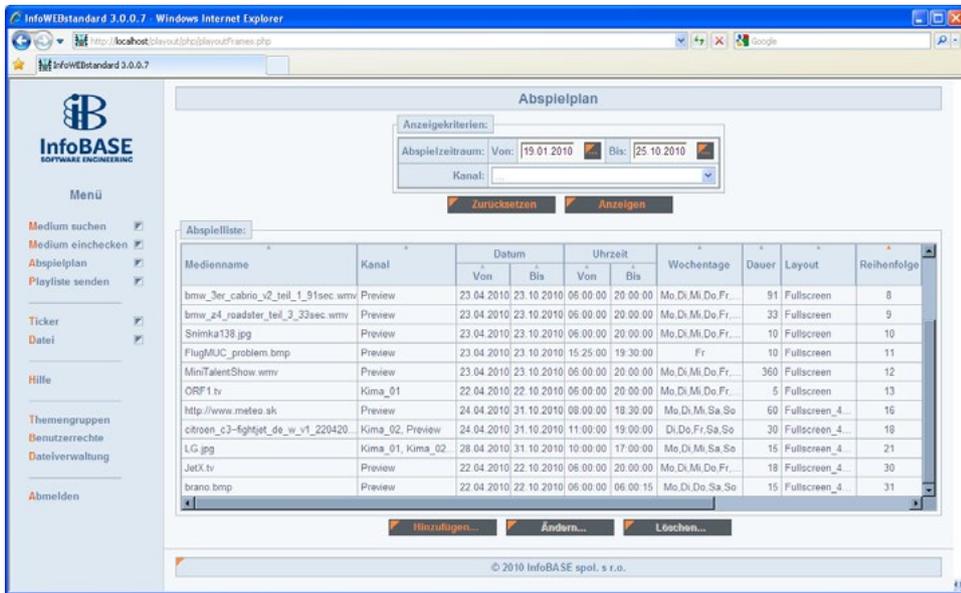
Of course also fixed events can be shown, i.e. a press conference.

The system can also be used from different user groups, because it is possible to set user access rights for activities, channels, etc...
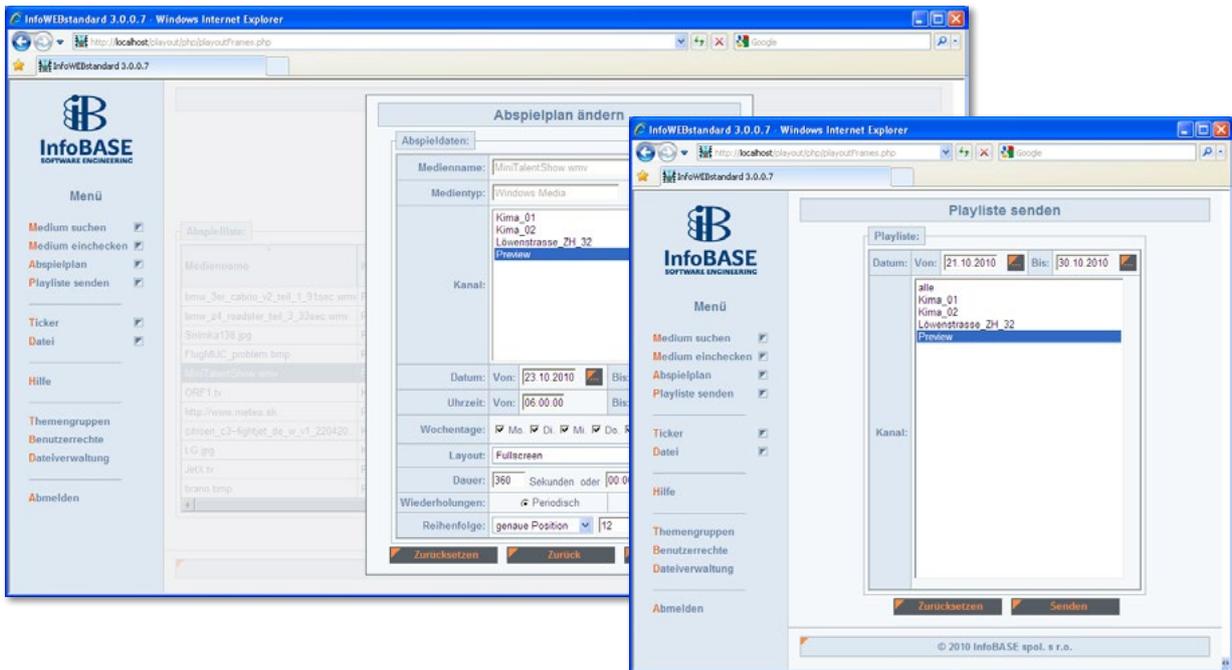
6/ InfoPLAYER

InfoPLAYER is a module that displays the presentations on the screens.
The InfoPLAYER application is installed on a PC and its RGB output is connected directly to the display.

RECOMMENDED HW CONFIGURATION:
Processor: Intel Core i5 mind 2.0 GHz RAM: 8 GB Graphic card: Intel HD Graphics Onboard TV card: Hauppauge WinTV-HVR-930C-HD (DVB-T / DVB-C / Analog), Hauppauge WinTV-HVR-5500 (DVB-T / DVB-C / Analog), AVerTV Hybrid Volar HD (DVB-T / Analog), Technisat SkyStar2 (DVB-S) Hard disk drive: 250 GB Operating system: Windows 7/10 Pro 64bit

InfoPLAYER guarantees the actual playback of the playlists - containing the defined layouts and media (Videos, images, DVD, TV...) - with the precision of one second.

SUPPORTED FILE FORMATS:
Video-Formats of Microsoft DirectShow (wmv, mp4/H.264, mpg2, webm/VP8/VP9) Images (bmp, jpg, gif, png, tga, tif) News (txt) Adobe-formats (swf, pdf) TV-Signal (Analog / DVB-T / DVB-C / DVB-S) Microsoft Powerpoint (ppt) Web-Sites (htm) QuickTime-Video (mov, qt) Sound (mp3, wav)

In addition, the single-line text moving on the screen above all the media -Ticker- can be displayed. Ticker is a very suitable function to display e.g. stock market news, product offers or other online information. It is also possible to show two tickers at the same time. This can be either scheduled in the playlist or activated online via Internet (InfoWEB).
Alternatively the InfoAGENT module can be used to periodically download data from the online sources via Internet/Intranet and send them to the specified players.
In case of emergency (fire, flooding, bomb alarm, etc.) full screen alerts can be displayed on the screen.
The wide range of file formats supported by the InfoPLAYOUT system allows that even sophisticated displays can be used for onscreen presentations without any limitations or necessity to compromise on the quality of presentation or the choice of the file format.

7/ InfoWEB

The InfoWEB module allows a remote administration of the onscreen presentations through Internet.

InfoWEB is a client/server-Internet-application with a connection to the central database. The availability of system access for different users (i.e. user access rights) is determined by login. It is possible to specify different access rights for different users, e.g. administrator, ordinary user etc.

InfoWEB implements the following tasks using the Microsoft Internet Explorer (ActiveX components!):

- Input of a single-line text moving on the screen, including images (Ticker)
- Input of a static multi-line text that can be used as an alert in case of emergency and displayed in a full screen mode immediately
- Input of a static multi-line text to display news, including images (also for background)
- Update of different media files (videos and images) via file upload function

In addition, the following features are available:

- user-free formatting and positioning of the content on the screen
- color options for background - including transparent, semitransparent or opaque
- content preview
- input data checking
- organizing/grouping text by topics
- multilinguality
- automatic data transfer
- context-sensitive help
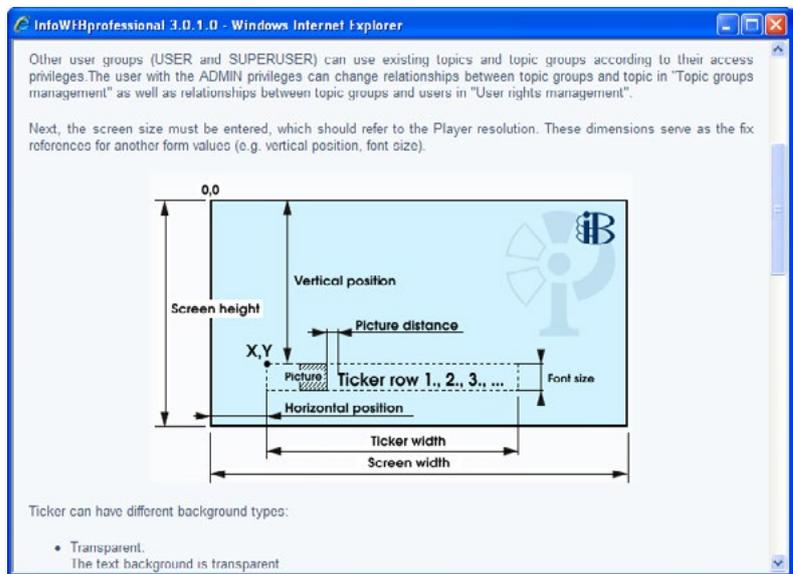
The InfoWEB module consists of 5 sub-modules:

1. Ticker-EDITOR
2. Schedulable Ticker-EDITOR
3. Alert-EDITOR
4. News-EDITOR
5. File-EDITOR

TickerEDITOR

Ticker-EDITOR allows a user to interactively input a single-line text moving on the screen (ticker), which can also contain images. Ticker always scrolls from the right to the left with a user-specified speed. It consists of several lines that can be either displayed serially (one line after another) or merged together and displayed as one line. Ticker can be also stopped in the middle of the screen for a certain period of time.
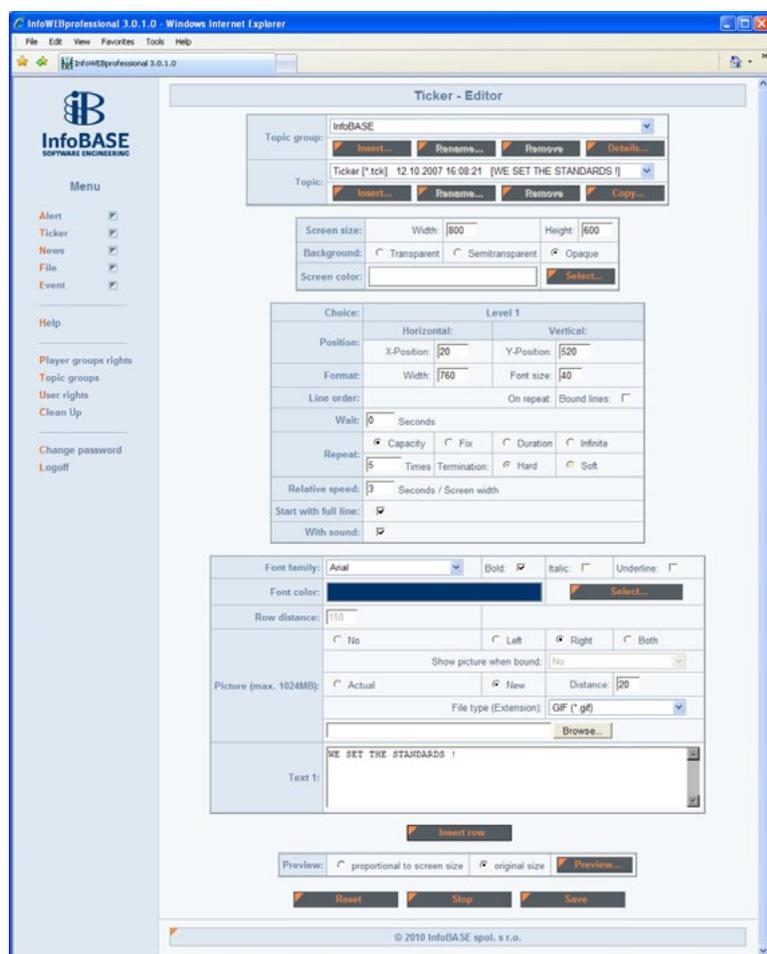
Ticker can be placed anywhere on the screen and the ticker width can be set independently of the screen width.

The period during which ticker is displayed can be limited either by setting an exact time interval (in seconds) or number of repetitions. Ticker is not integrated in the playlist, so day and time to be played must be specified when sending the ticker. Ticker can be scheduled to be played instantly and/or at any time in future.
It is also possible to show several tickers in different layers simultaneously. The destinations, where the ticker should be displayed, are selected by the channel or the locations.

Schedulable Ticker-EDITOR

The schedulable Ticker-EDITOR works in the same way as Ticker-EDITOR. However, the schedulable ticker is a part of the playlist, so it is necessary to define how long (in seconds) the ticker should be played.

Alert-EDITOR
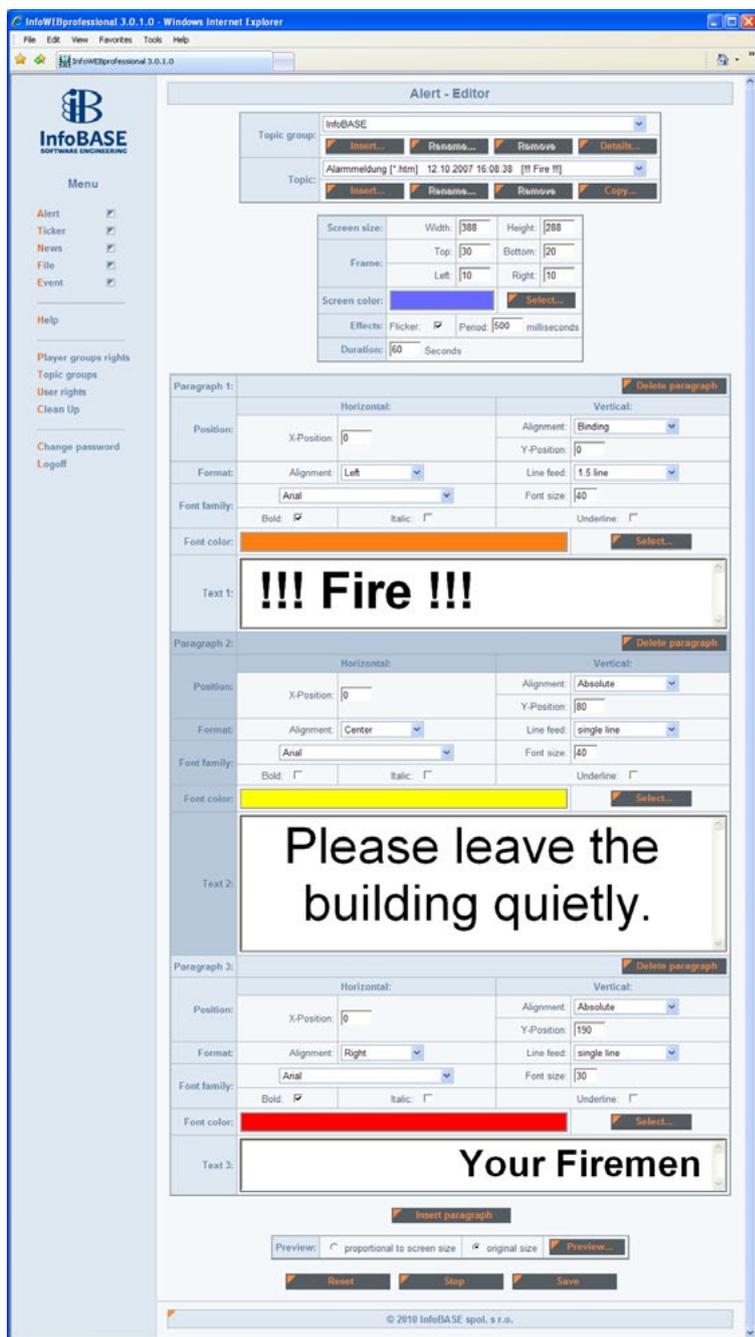
Alert-EDITOR is used for interactive input of a static multi-line text, which can be used as an alert in case of emergency (fire, flooding, bomb alarm, etc.) and displayed in full screen mode immediately.

When entering the "alert text" (henceforth "alert") it must be also specified how long (in seconds) the alert should be displayed.

Alerts also support the "flash-effect" in order to attract a higher attention. The intensity of flashing can be specified in milliseconds in the input field.

An alert can contain different paragraphs that can be formatted as desired.
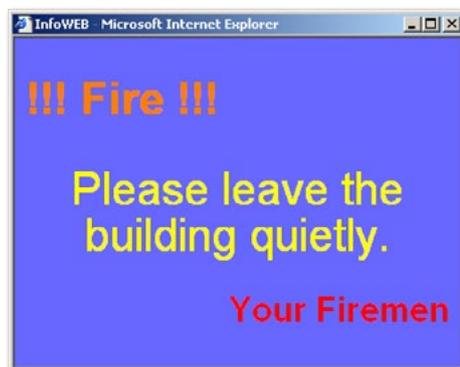
However, at each point of time only one alert can be displayed. The alert can be discontinued and/or updated by another one. The destinations, where the alert should be displayed, are selected by the channel or the locations.

Note:
Alerts are always displayed in the full screen mode and they have the highest priority – without any exceptions. Moreover, they are displayed immediately and regardless of the ongoing presentation on the screen.

News-EDITOR

News-EDITOR allows a user to interactively input a static multi-line text (henceforth "news") that can also contain images.

News can have several paragraphs and can be formatted in any way. An image can be inserted into each paragraph - either on the left or right side of the text.

The content of the news must be typed into a reference window. The properties of the window background can be also selected, e.g. transparent, semitransparent, opaque; or including an image or not.

The playback time of news is specified in the playlist.
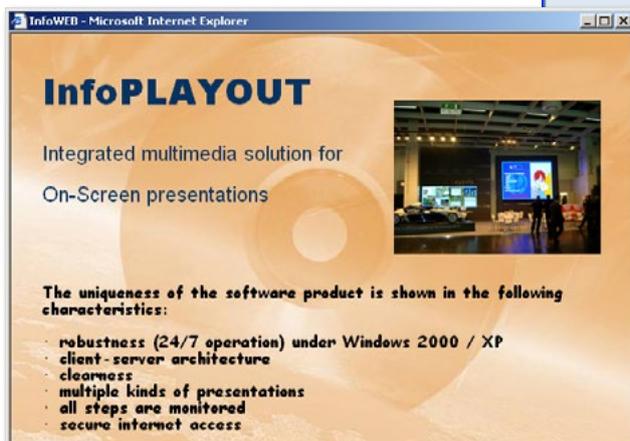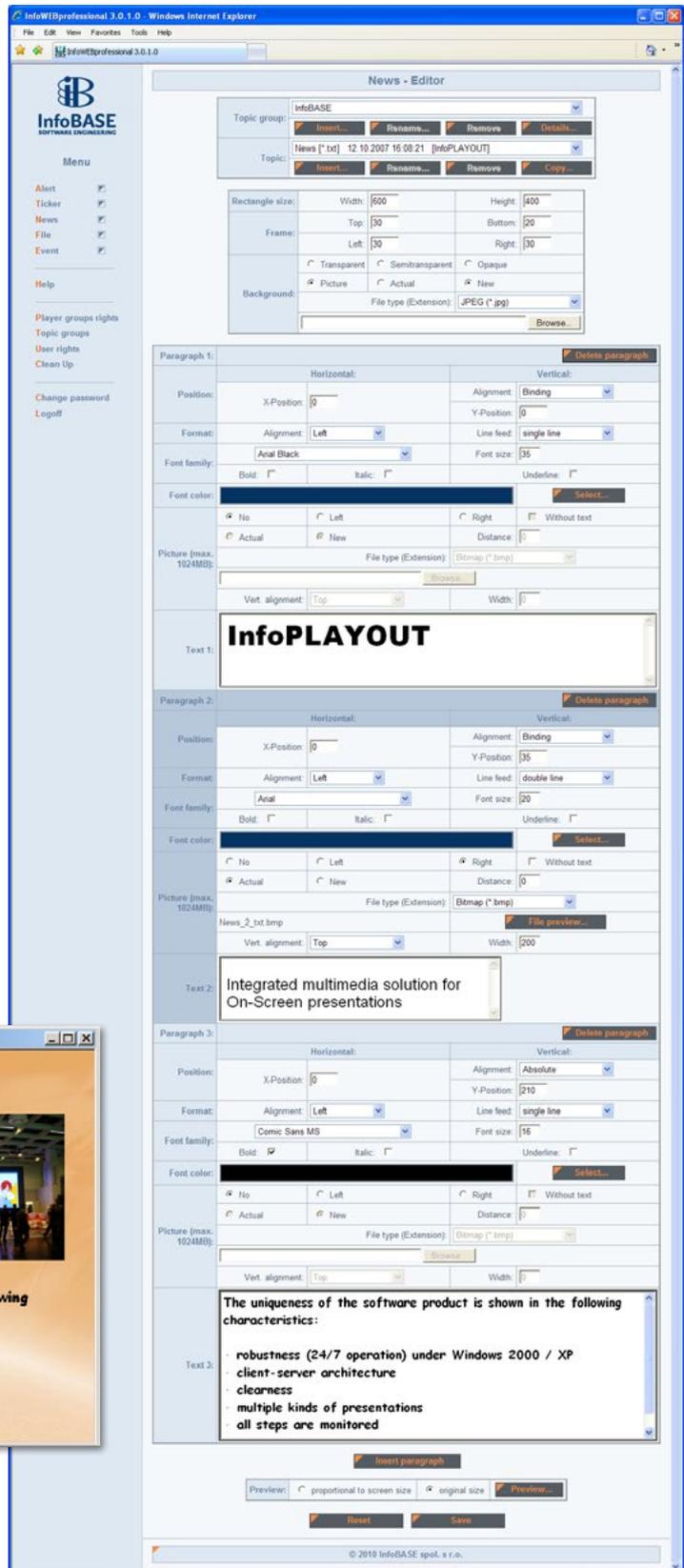
File-EDITOR

File-EDITOR allows an interactive update of different media files (videos and images), which are displayed on each InfoPLAYER according to the playlist.

The update on the central server is managed by the file upload through WEB-Browser.

The updated file is then transferred from the central server to the final destinations by InfoDIS-TRIBUTOR.

The file format is automatically checked before a file is sent; in order to avoid that incorrect or damaged file would cause disruptions or failures of the InfoPLAYER module.
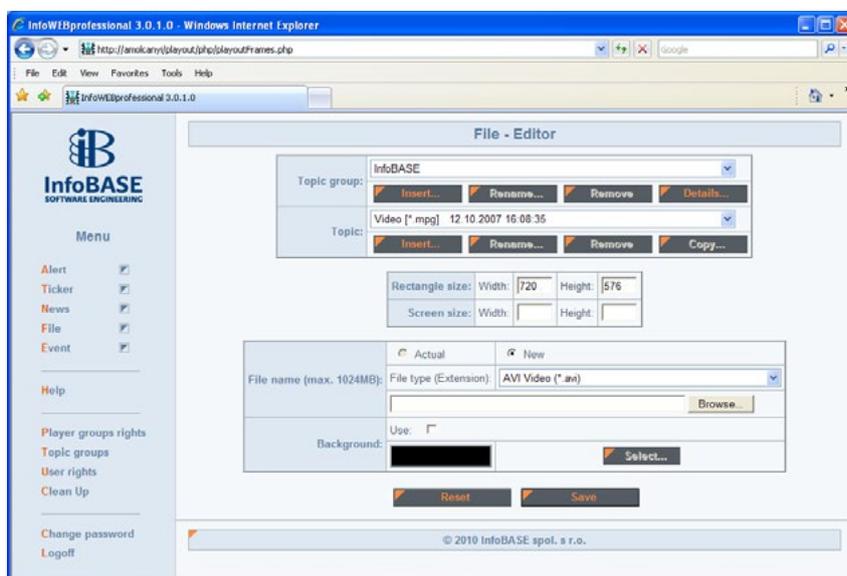
WE SET THE STANDARDS

8/ InfoDISTRIBUTOR

InfoDISTRIBUTOR is a module that guarantees the distribution of data throughout the entire system. Data distribution includes automatic transfers of the files from the central server to the final destination points, as well as data replications (data distribution among duplicated elements in the InfoPLAYOUT system, e.g. extra players or distribution servers).

InfoDISTRIBUTOR runs automatically and non-stop once the correct configuration is set. Afterwards, no additional assistance is necessary.
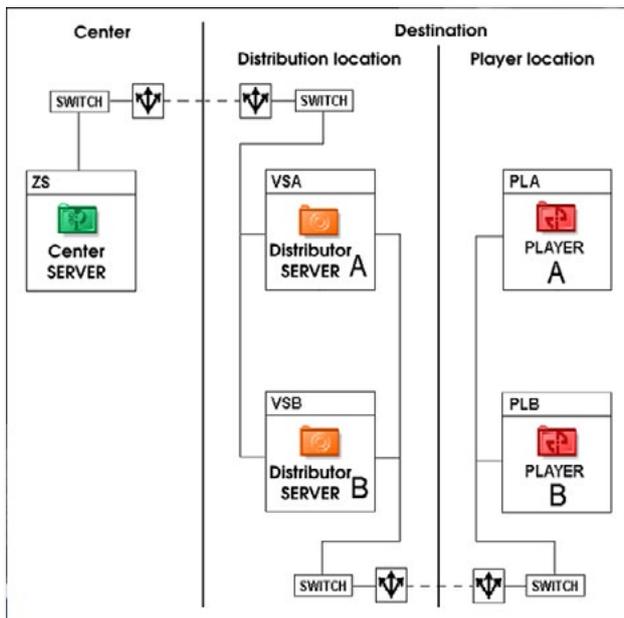
The InfoDISTRIBUTOR module is based on the network of distribution paths and allows thus to optimize the logistics of the entire system. If necessary (for backup), the duplicated elements in the system can be also used in the distribution network. Different transfer priorities are supported as well.

In addition, InfoDISTRIBUTOR automatically deletes old files to always maximize the disk capacity of the distribution servers and players. The old files are then archived on the central server.

The possibility to specify a time period for data distribution allows that data transfer takes place during the most convenient time for a user (e.g. during night).

During data transfer InfoDISTRIBUTOR creates log files that document each step of the data transfer process, including the status of the most recent transfer. These log files together with log files generated by the InfoPLAYER module are automatically sent to the central server.

In order to guarantee an effective and secure data transfer the FTP protocol is used. Simultaneous transfers of files - from one computer into several destinations - or data transfer replications are also possible. Data transfer process can be monitored online using InfoDISTRIBstatus application.
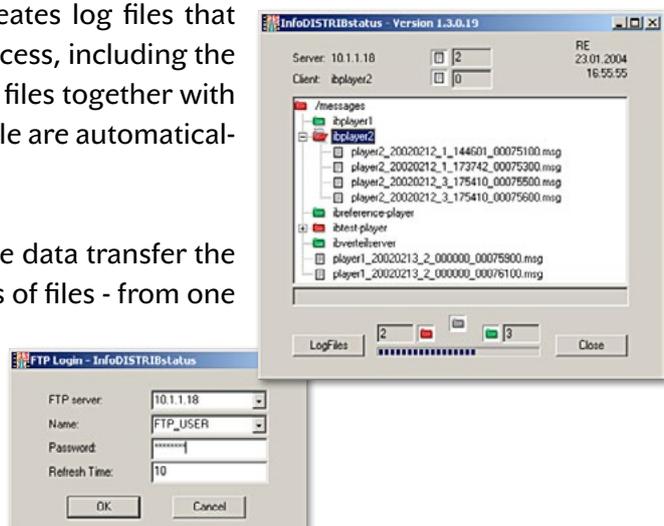
9/ InfoCONFIGURATOR

InfoCONFIGURATOR is used to set configurations for the entire system, including configurations for distribution paths into every physical location (particular InfoPLAYER) within the distribution network.

The user-friendly GUI interface allows an easy and fast configuration of the InfoPLAYOUT network.

The output of InfoCONFIGURATOR consists of several configuration files used by the InfoDISTRIBUTOR module.

InfoCONFIGURATOR also allows a remote installation and administration of the following products for each computer within the entire InfoPLAYOUT network:

- InfoDISTRIBUTOR
- InfoWATCHDOG
- InfoPLAYER
- external applications
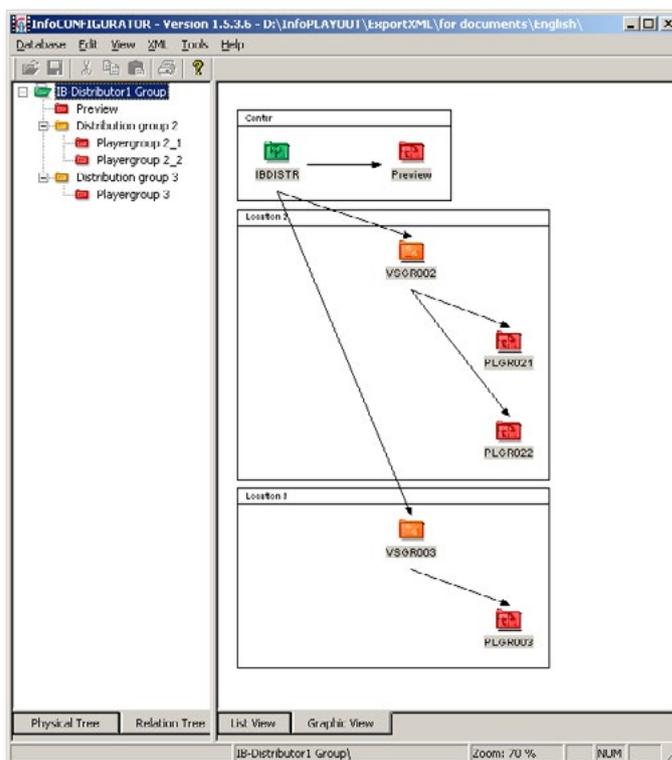
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10/ InfoSTATUS

InfoSTATUS is the tool for online monitoring of all the components in the InfoPLAYOUT system. InfoSTATUS module also monitors the data transfers into the distribution servers and players.

If there is a problem in the system, an error message will be generated and sent by email to the system administrator. In addition, a detailed error message will be displayed.

If necessary, the InfoPLAYOUT components can be activated, stopped or queried for their status manually.
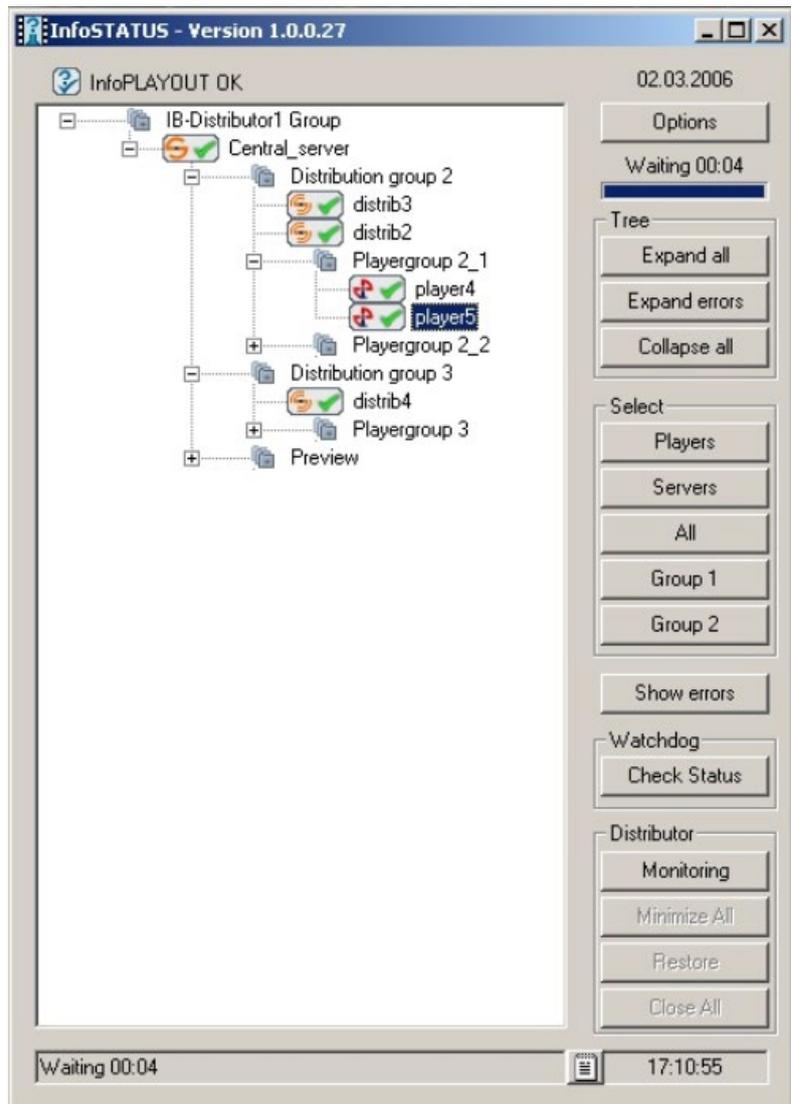
11/ InfoAGENT

InfoAGENT is the tool for downloading media automatically from online sources and transferring the data to the specified players. So current information – videos, pictures, html pages – can be shown in the whole network.

It is also possible to customize the text- and XML-files in news format or as html pages. RSS feeds are realized in the system as a ticker.

12/ Description of the Main Functions

MODULE	SYMBOL	NAME	DESCRIPTION
InfoMANAGER		Request (Query)	Searching/booking free time slots according to the input criteria e.g. time, date, length of presentation, channel etc.
		Fill-Trailer	Free time slots in the playlists are automatically filled with the user specified selections of existing media (fill-trailers).
		Order Overview	Order overview with comfortable search functions.
		Content Management	The central administration of all media.
		Preview	Preview of the media content. It is important for checking the content and format of the used files.
		Data Export	All list views can be easily exported into Excel and modified.
		E-mail message	Automatic notification by e-mail about expiring reservations and orders with missing (not yet delivered) media.
		Templates	Creation of graphical re-usable templates for the playlists.

| InfoMEDIALIST | | Media and Play-list Management | User friendly and web based management tool for media and playlists with different layouts. |

MODUL	SYMBOL	NAME	DESCRIPTION
InfoPLAYER		Different Formats	All conventional media formats are supported: - Video formats (MPEG-2, MPEG-1, AVI, WMV, MP4/H.264, QT, DVD-Video, TV) - Images (BMP, GIF, JPG, TIF, TGA, PNG) - Animations (SWF, DCR) - MS Office (PPT, DOC, XLS) - Sound (MP3, WAV)...
		TV Broadcast	TV channels played.
		Layering	User-specified overlaps among different media on the screen.
		Ticker	Single-line text moving on the screen. The option to insert images is also available.
		Alert	Alerts in case of emergency.
		News	User-formatable multi-line static text (news) displaying the most recent information. The option to insert images is also available.
		One Second Precision	Playback of media with the precision of one second..

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MODUL	SYMBOL	NAME	DESCRIPTION
InfoWEB		Access/User safety	System access rights for different users
		Preview	Preview of the media content. It is important for checking the content and format of the used files.
		Context-Sensitive Help	Context-sensitive help including images.
		Ticker	Single-line text moving on the screen. The option to insert images is also available.
		Alert	Alerts in case of emergency.
		News	User-formatable multi-line static text (news) displaying the most recent information. The option to insert images is also available.
		File Upload	Possibility to update playback media (videos and images)

InfoDISTRIBUTOR	SYMBOL	NAME	DESCRIPTION
InfoDISTRIBUTOR		Data Transfer	Automatic data transfer from the central server to the destination point of the presentation.
		Non-Stop Service	System operates automatically non-stop.

InfoCONFIGURATOR	SYMBOL	NAME	DESCRIPTION
InfoCONFIGURA-TOR		GUI	User-friendly GUI interface for configuration of the InfoPLAYOUT network.
		Configuration	Configuration of the entire **Info-PLAYOUT** network.

InfoWATCHDOG		Monitoring	Start, stop and monitoring of a player.

InfoSTATUS		GUI	User-friendly GUI interface for monitoring the InfoPLAYOUT network.
		Monitoring	Monitoring all the components of the InfoPLAYOUT network.

InfoAGENT		Download	Different media can be downloaded automatically from online sources.

digital signage software

13/ References

.:: APG|SGA

Allgemeine Plakatgesellschaft AG

LED screens, LCD screens advertising and with beamers:

- 19 Railway stations:
  Basel, Bern, Geneva, Lausanne, Zurich and others.

- Event Locations:
  St. Jakobspark Basel, Hallenstadion Zurich

- Ski resorts:
  Arosa, Lenzerheide, St. Moritz, Zermatt

- 25 Shopping centers:
  Chur City West, Shopping Ladedorf und Martigny Quartz and others.

- City advertising:
  u.a. in Basel, Lausanne, Winterthur und Zürich

APG|SGA Traffic

Public transport:
 Transport company Bern, Lausanne, Luzern, Auto AG Uri und Jungfraubahnen.

Flughafen München

Digital Signage standard-software (Advertising spaces, shops, gastronomy, service center)
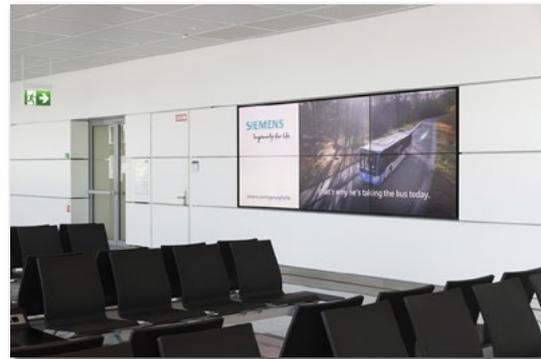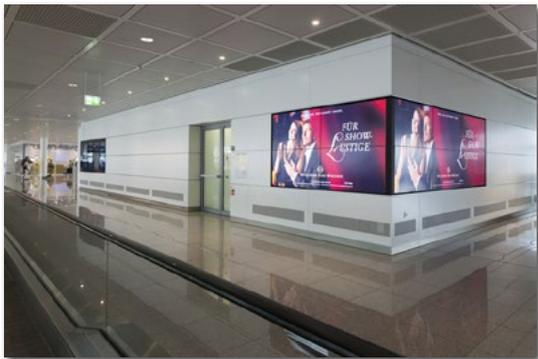
Messe München International

Besucherleit- und Werbesystem
auf 70 Bildschirmen und mobilen Stelen.

Internationales Congress Center München


Hall information system on
65 screens and mobile stands.

armasuisse

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
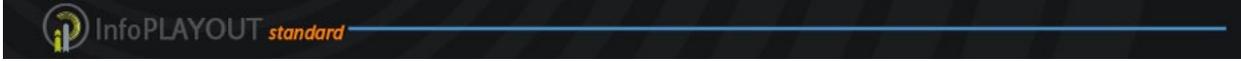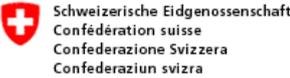
Raumreservierungen, Informationen und Imagewerbung.

BMW AG

Freude am Fahren

Adverising and product informations as well as news on the 68 32″ LCD screens at Munich Airport and the 38 40″ LCD screens at Hamburg Airport.
Product informations on the 55″ screens on the car exhibits at Munich and Hamburg airports.
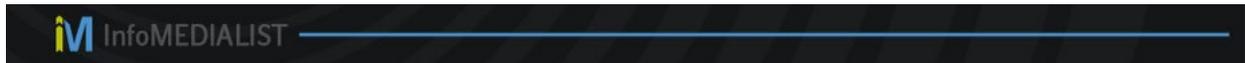
Ski amadé

Hauser Kaibling
Planai-Hochwurzen-Bahnen
Snow Space Salzburg

Guest information system

SkiWelt Wilder Kaiser-Brixental

Bergbahnen Ellmau-Going

Guest information system

Bergbahnen Fieberbrunn

Guest information system

Skiworld Ahrntal

Klausberg Skiarena
Speikboden

Guest information system
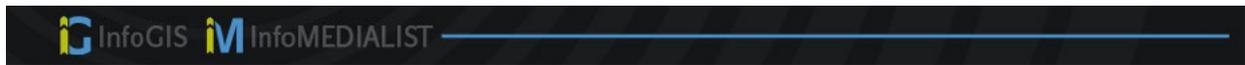
Tourismusverband Ramsau

Guest information system

Livigno:
Bergbahnen Mottolino

Guest information system

InfoGIS

Bergbahnen Turracher Höhe

Guest information system

InfoGIS InfoMEDIALIST

Scuol: Bergbahnen Motta Naluns

Guest information system

InfoGIS InfoMEDIALIST

Tiroler Zugspitz Arena

Skigebiet Grubigstein

Guest information system

Steinplatte Waidring

Steinplatte

Guest information system

Gemeinde Au

Guest information system

Gemeinde Mittenwald

AAvalanche alert System

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