TV program scheduling management.
365 days playlist.
Multiformat broadcast playout.

SD/HD
The WonderCube® platform provides the ideal solution for the integrated management of a television broadcast, covering the whole process, step by step, from drafting program scheduling to broadcasting.

Program scheduling strategies are at the heart of television planning, both in terms of daily production and commercial management. In just a few quick and easy moves, WonderCube® allows you to go from annual planning to daily broadcasting, through the integration of the various system software.

The playlist compilation and program scheduling is a smooth, immediate process, thanks to the automation of the processes and access to the all-digital archives. The storage of each and every television program on the Blu-ray Library, means that planning hours and days of scheduling, is just a mouse click away.

Each software program is flanked by a series of functions that specifically help guarantee reliability, flexibility and durability of the system in any situation.

**Program Schedule software.**

The program Schedule software was designed to manage each step of program scheduling, from medium and long-term strategic development to the management of contract expiry dates.

The operator can decide the timescale he wishes to see: start from an annual planning of program scheduling and use the zoom control to highlight the details of a specific time of day.

By saving all the video archives of the broadcaster on the Blu-ray Library and sharing it on-line, authorized users can access real-time program files and relevant data (contract expiry dates, duration, target, etc.).

Whilst dealing with program scheduling, the operator can also choose to create themed evenings, by bringing together several films of the same type or by the same director, and immediately plan their broadcasting in the playlist. The software allows you to insert programs shown in episodes, highlighting any time gaps in scheduling, or pointing out the accidental scheduling of two different programs at the same time. Program Schedule is an advanced software that will allow you to analyze the quality and quantity of your programming.

This software is open to the outside world, it updates the broadcaster’s website automatically and publishes the program schedule in real time, sending a copy of the broadcaster’s programming to daily newspapers automatically.
Playlist software.
This software makes it possible to program a 365 day playlist in no time at all. The playlist is automated, with the considerable advantage that compilation times are minimized, and the operator need not waste time on repetitive operations, preferring to strategically analyze the scheduling.

The interface of the software too has been designed for an immediate and intuitive use: the operator’s screen shows all necessary commands, made simple by clear buttons and icons.

The more advanced functions of the Playlist software can be summarized up into these important features:
1. **Automatic control of protected time slots.**
The software automatically analyzes the target of the footage scheduled in the playlist, and highlights anything not in line with current legislation.

2. **Horizontal playlist planning.**
A playlist is usually compiled in sequence, by inserting one program after the other, until filling, minute after minute, the 24 hours of the day.

The Multi Add function gives you the chance to plan a playlist in a better way: ‘horizontally’. In just a few minutes, you can program and include all episodes of a TV series into your playlist. Having inserted the start date and broadcast end, the times of the first showing and its reruns, with one click, all episodes of the series will be programmed into the playlist, thereby saving days of work, and avoiding any possibility of making a mistake.

3. **Automatic calculation of commercials crowding.**
The software automatically calculates commercials crowding, distinguishing between display advertising and homeshopping, and showing the total daily amount of commercials in seconds, minutes and hours.

4. **Spring Mode: put a program in where there simply isn’t the space to do so.**
The Spring Mode function is a patented WonderCube® function that shows the flexibility of the entire system. Spring Mode allows you to put a program in where there simply isn’t the space to do so.

Spring Mode allows you, for example, to put a 32 minute long program into a 30 minute long space! The software automatically reworks the positioning of all programs previous to and following the insertion, reprogramming them, in complete respect of the protected time slots, contracts and scheduled programming hours.

Spring Mode also works to make up for those little errors that can be created in a playlist, automatically closing any time spaces left between one program and another. The Spring Mode function is useful to programming advertising. No longer need you work out the duration of footage, or remove items from the schedule to insert a new advert. Spring Mode does it all for you. Just choose the advert required and insert it into the chosen group of advertisements. Simply click, and the software will fit it in, the client is on air.

5. **Copy and paste function.**
This command is particularly useful for themed broadcasters wanting to repeat programs or parts of the playlist. The software simply ‘copies and pastes’ portions of the playlist, in just a few seconds.

6. **Remote control of digital matrix.**
Without moving, the software allows you to remote control and program all sources to and destinations of the broadcasting matrix. This function is useful for live broadcasts, satellite links, and links with other places.

7. **Split function.**
To make for different scheduling in different areas of the territory, the broadcaster can divide up the daily and commercial programming over different areas covered.

**Cluster software.**
The Cluster software makes it possible to manage the whole system of advertise programming easily and separately. The software interfaces with the main archives, and shows you all existing clusters, providing their ID, name, year, duration and expiry date. Advertising slots and elements that can be added to a cluster, can be filtered according to name, by means of a text search field.
SD/HD Playout software.

SD/HD Playout software has all the potential of digital technology, guaranteeing independent programming even if disconnected from the rest of the platform.

In order to guarantee maximum security, each broadcast can be equipped with two playouts working in parallel, and synchronized on the same playlist. Should the first playout experience broadcasting problems, the software shifts automatically to broadcast the second. Those watching won’t realize a thing.

The Playout software controls the switching into external programmed sources, such as satellite switches or live links. It can be controlled from control room, a necessary feature for live broadcasts. Once the live broadcast has finished, the software automatically synchronizes the programs in the playlist, with a smooth, continuous broadcast.

The WonderCube® system clock synchronizes automatically with the system server. The GPS option connects the platform to a satellite signal that maintains synchronization to the frame.

To meet legal requirements, the Playout software automatically generates legal records, complete and ready to file. These records can be consulted at any time by means of a computer connected to the system.

1. Single Player function.

The Single Player function is integrated into the Playout software. It is a multimedia reader fully compatible with all footage conforming to SD/HD standards, and has been specially optimized to reproduce clips acquired through the platform.

The Single Player function plays any footage from any network folder, adding control of audio levels, and showing you the time passed and the time remaining until the end of the clip.

It can be used in broadcasting to show a video file, without going through the playlist programming. It can be used in direction too, to introduce contributions from a live broadcast.

It has a simple, dynamic interface and is complete with play and fast forward functions.

2. Agent function.

Agent is the alarm signal. It is the software designed to control that the system is functioning perfectly.

It alerts you in the event of playout or broadcasting problems, identifies the error and informs the administrator of all details in three, customizable, ways:

- via computer monitor: an animated figure appears on the screen and describes the problem;
- via e-mail: the system sends a message detailing the error to the administrator’s e-mail;
- via SMS: a short text message is sent to the system administrator’s cell phone, or to that of the maintenance technicians.

3. Graphic Tilter.

The software works as a digital tilter, and can be used both by control room and by remote broadcasting control. It is the ideal tool for the automatic insertion of logos (2D and 3D), crawls or information tickers, both created in the newsroom and supplied automatically by a press agency. It can show personalized graphics created independently and is compatible with the most common vector graphics programs. It also allows you to add effects like picture in picture, and to display analog and digital clocks.

The control of this tool can be programmed directly from the playlist, and synchronized with the playout, or can be used by the operator in real time.
Digital management of footage.
To be broadcast, footage must be digital and therefore acquired from
tape and converted into files. Once it has been acquired, the clip can
be shared on the network, reworked post production, or simply edited,
marked, transferred to broadcast and saved

1. Cutting software.
Cutting software cuts a part of the video out of the whole film clip. The
software cuts in real time, with frame accuracy. The file generated is
ready to be archived or broadcast.

2. Marking software.
Marking software makes it possible to select the start and end of a clip, and choose specific ‘insertion points’ within, that will be the points of
insertion of advertising clusters.

The marking function can associate a two- and three-dimensional
logos to specific portions of the clip. The system operator may also
request the automatic insertion of labels (e.g. red, yellow and green)
indicating the target audience, the title or logo of the program and the
digital clock.

The marking function is a useful tool in storage too. Key points of the
footage can be ‘marked’ and associated with meta-data before being saved. In this way, browsing is quick and intuitive, and the user can
access the portion of the footage he is interested in directly, without
having to watch the whole thing.

3. Linking software.
The Linking software connects the identifying meta-data to each audio-
visual clip of the footage. This is very important whilst saving, and
makes searching the archive database easy and intuitive.

Each file is linked to a card or form. Each form contains all the
information relating to the linked file/s, such as: the title, duration,
target, expiry date, date on which broadcasting rights expire, etc.. Once
the link has been made, the file is available on the network and to all computers connected to the system. It is ready to be consulted, edited or broadcast.

Archive software.
This software is the Media Asset Management of the WonderCube®
Platform.

It is the primary source for all activities connected to broadcasting, and
holds information relating to programs that can be inserted into playlists and broadcast.

A simple, intuitive interface allows you to check the database and
instantly access the thousands of pieces of information and footage
contained in the broadcaster’s video archives.

The software also allows you to personalize your archiving preferences,
by altering the insertion fields set out by the database.

An archive search can be made quite simply through a free text search
into the form, or alternatively in advanced mode, with crossed fields for
more detailed and selective searches.

Unique file position.
Once it has been linked and marked, each file has completed its archive
process, and receives an exact location (server, Library, other), so as to
remain traceable. If the file is saved on the Library, it is given a Library
number, the number of the cluster in which the media containing the file
is located, and the position of the media within the cluster.

At any moment, the exact contents of each and every Library and
cluster can be seen. You can find out the positions that are still
available for archiving new files, and organize storage spaces in the
best possible way.
Maximum security and complete copies. The database contains an advanced file control and verification system. When a file is saved, the system automatically generates a unique binary code (MD5) that is associated with and identifies the file. When footage is moved or copied, the system uses this code to check file integrity.

Details and statistics. The association between a digital broadcasting system and a digital video archive makes it possible to share and crossover broadcasting data with archiving meta-data. An immediate statistical analysis tells you instantly exactly how many times a certain program has been shown, when the last time it was scheduled was and when it will next be broadcast.
# MAIN FUNCTIONS OF THE WONDERCUBE® TV BROADCASTING SYSTEM

**Program scheduling**
- Creation, viewing and editing of program scheduling
- Management of program information
- Printout of program scheduling
- E-mailing of program scheduling to a configurable mailing list
- Automatic publication of the program scheduling on the web
- Management of advertising breaks
- Detailed viewing of program scheduling

**Clusters**
- Integration with program archives
- Editing of internal cluster order
- Active control of promotions and adverts
- Automatic updating in the playlist
- Automatic jingle management
- Automatic expiry date control

**Playlist**
- Integrated calendar
- System times synchronized throughout the whole platform
- Viewing of playlist program duration
- Program shifting
- Insertion of programs into the playlist
- Switch
- Manual transfer of the playlist to playout
- Live broadcast management from the playlist
- Automatic target management
- Icon for each programme inserted into the playlist
- Complete or partial programme block
- Temporary insertion management
- Spring mode function
- Automatic advertising crowding control
- Copy/cancel part of a playlist
- Search playlist
- Split function
- Preview scheduled playlist
- Automatic management of television series
- Printout playlist
- Advanced transfer playlist/playout
- Countdown for the on air programme

**Legal records**
- Generation of legal records
- Integrated calendar
- Printout of records
- Preview records
- Edit records

**Archive**
- Insert through forms
- Form duplication function
- Archive search
- File archiving with MD5 code
- Archive reports
- User operation logs

**SD/HD Playout**
- Video player with preview
- Management of live broadcasts from playout
- Synchronized time System
- Diagnostic software and agent alert
- Integrated manual player
- Redundancy with second playout
- Self-aligning
- Indication of remaining free space
- View broadcasting history
- Integrated audio control
- On-air programme countdown
- Digital matrix management
- Timed playlist transfer
- Automatic management of disk space

**SD/HD Single Player**
- Copy of footage from network folder
- Integrated audio management
- Countdown display

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