3DWeather

3DWeather is a complete meteorology production suite for 2D and 3D real-time weather data

3DWeather enables the intuitive creation of realistic and captivating real-time 2D and 3D representation of weather forecasts. Weather data such as ISO-thermal, ISO-pressure, ISO-precipitation, satellite and radar image films, synoptic information and a wide range of city weather information, can be presented on 2D and 3D maps in real-time. 3D fly-through, animations, and interactive capabilities complete the graphics to achieve a compelling weather show.

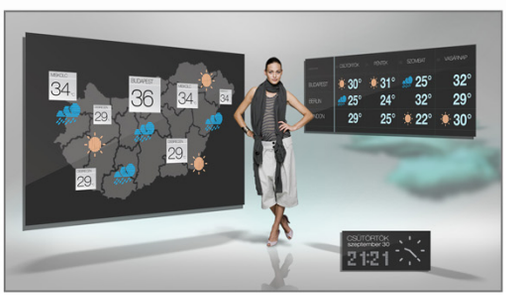
The high quality real-time rendering capabilities of 3DWeather allow users to quickly react to changing conditions and dramatically reduced the time-to-air with up to the second accurate weather data.

Simplifying the weather show

3DWeather is a template based system. 3D and 2D graphic templates and animations are generated using Orad's powerful 3Designer authoring software. Templates (designed by the stations' graphic designers) are overlaid with weather data which is pumped onto the templates in real-time and visualized by 3DWeather. This methodology frees meteorological specialists at the station from dealing with the graphics' design and creation, thereby enabling them to concentrate on generating the weather show itself, including making changes on the fly.

High quality maps

3DWeather provides stunning visualizations of real-time flights over 3D terrains, including flights through sunbeams, clouds and rain. By using high quality maps from MapCube's database, the user can easily put multi layered animated 3D weather icons over 3D maps.



Courtesy of OrigoTV, Hungary

Professional weather data

A comprehensive part of 3DWeather is its integration with CustomWeather, one of the most accurate and detailed weather data providers worldwide.

A dedicated application retrieves weather information from CustomWeather into the broadcaster's internal network, providing online updates on more than 62,000 locations world-wide including weather description, wind conditions, temperatures, humidity, and 48h/7d/15d forecasts. CustomWeather also provides updates on severe weather data such as hurricanes, cyclone report, and fire alerts.
3DWeather can be easily integrated with all other weather data providers.

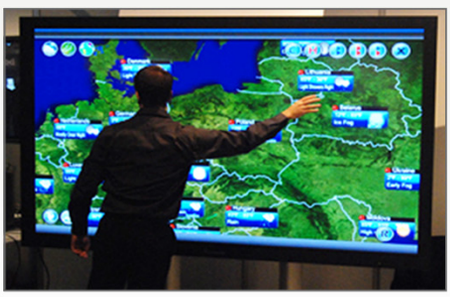
Endless creativity

3DWeather is HD and SD compatible as it takes advantages of Orad's advanced HDVG video graphics rendering platform. By using the 3Designer application the graphic department can create realistic weather objects and import them as part of the show.

The combination of 3Designer application and Orad's advanced virtual set solutions results in realistic weather shows.

Journalist station

3DWeather's show can be produced by the weather presenter from his work station, enabling him to control and view the data, as well as create his own weather icons, from a dedicated PC.



Interactive weather presentation

Seamless integration

3DWeather integrated seamlessly with Orad's Maestro and 3DPlay playout controllers, thereby providing an automated weather show which does not require any special systems or operators.

Interactive weather

Combined with Orad's Interact solution, weather presenters can interact directly with their weather representations from their touch/multi touch screens, bringing their weather show to a whole new level.

Courtesy of RTBF, Belgium

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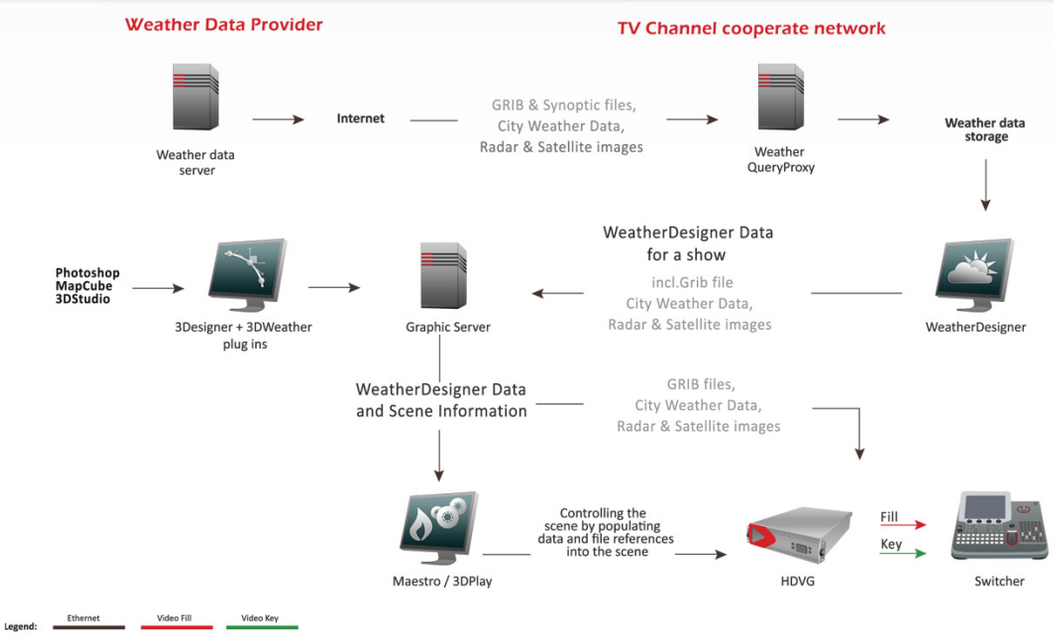
Features

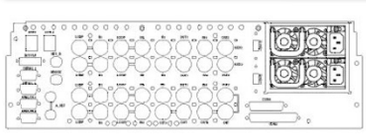
- Real-time weather system with up-to-the-minute data updates
- Wide range of weather representations, weather symbols, ISO bars, ISO thermal, satellite images, wind, typhoons, hurricanes and many other weather objects
- State-of-the-art 3D flight visualization
- Intuitive template based system empowered by Orad's 3Designer requiring little interaction
- HD and SD compatible
- Integrated with Orad's PowerWall to display the weather show in high resolution on large video walls
- Integrated with Orad's Interact for a completely interactive weather show
- High quality maps database from MapCube Media of up to 1 meter per pixel (standard of 500 meters)
- Worldwide accurate and elaborate weather data from provider CustomWeather
- Compatible with GRIB files
- Instant preview of weather data is part of the user interface
- Supports external Geo-referenced maps
- Seamless integration with Orad's Maestro and 3DPlay playout controllers and virtual studio solutions
- Based on Orad's HDVG video graphic rendering platform
- Supports additional weather data providers

Graphic user interface

Diagram



Hardware Specifications



Turnkey System Specifications (constant):

- 2.4 GHz Intel Core Xeon Westmere
- Operating systems: Linux
- RAM: 6 GB
- Internal storage: 160 GB system disk optional RAID1 with additional HDD
- Ethernet: 2X 1000 BASE-T (RJ-45)
- Ports: 2 serial RS-232 (DB9); 4 USB 2.0 (2 front 2 rear)
- Control interfaces: PS2 keyboard, PS2 mouse,VGA/DVI

Physical Dimension:

- Height: 130 mm
- Width: 443 mm
- Weight: 22 kg (approximately)

Redundant Power Supply:

- 100-240 V
- 47-63 Hz
- 2 X 460W (max)

Supported Video Standards:

- HD: SMPTE 260, SMPTE 295, SMPTE 274, SMPTE 296
- SD: SMPTE 259 ITV-R BT.601

Video In:

- SD up to 12 SDI channels, full resolution
- HD up to 6 SDI channels, full resolution

Video Output:

- 2/4 SDI outputs (video key compositing configurable)
- Internal chroma and linear keyers
- 2 monitor outputs: 10 bit component YUV (SD/HD); SVHS, composite (SD only)

Video Reference:

- Bi/Tri level Sync with passive loop
- All cross formats are supported in the same frame rate
- SDI from DSK input

Audio Processing:

- Embedded audio 20-bit/48 KHz in SD and 24-bit/48 KHz in HD
- Support for additional audio playback and mix from .wav files, clip sources, and video insertions

ANC Data:

- Preservation of all VBI data through downstream keyer
- Preservation of Dolby E, 32 KHz and 44.1 KHz PCM embedded audio through downstream keyer

Clip Options:

- Video to texture mapping of AVI, Quick Time, DV, DVC25, MPEG files

Video Bypass

- Mechanical bypass for power failures
- Logical bypass for application failures