



# Interact

**Enabling presenters to easily interact with their broadcast graphics using touch screens, video walls and other input devices.**

## Manipulating on-screen graphics

Traditionally, presenters could only influence on-screen content with simple triggers that advanced the content like a slide show. Orad's new Interact enables television presenters to control and direct the content on their touch screens, video walls and other input devices, helping them engage more with their viewers.

Interact supports single, dual and multi touch displays from a variety of manufacturers, allowing broadcasters to choose the device that best suits their production's style and budget.

With Interact, the presenter has unlimited capabilities, as it supports countless gestures including; rotating, scaling, moving, dragging, tapping, holding, drawing, highlighting, etc.

Thanks to Interact, presenters can manipulate objects on screen, triggering different events within the graphic's templates. The interactive elements can give feedback to the presenter when activated by changing color, flashing, etc, depending on the context of the scene.

Interactive elements can now possess physical properties such as mass and inertia, giving a new level of feedback to the interactive graphics.

## Flexible environment

Interact's flexible workflow integrates with real and virtual studios seamlessly. The interactivity of the broadcast's graphics can be easily developed thanks to Orad's 3Designer authoring software, which enables broadcasters to define which elements of the scene are interactive and what interactions are allowed for them. Once the interactions are defined, each object can be set to respond to tapping, dragging and holding with Orad's 3DPlay controller.

Existing templates can easily become interactive as the entire workflow for enabling interactivity takes only a few minutes to carry out.

Interact maintains the existing graphic creation workflow, and does not require programming or scripting. As soon as interactive objects are touched, 3DPlay responds by triggering actions in the production. This allows users to build and maintain regular productions, adding interactivity only to the elements that require it.

Interact is ideal for any type of production, including; sports, elections, morning shows, weather, news, etc. With Interact, the presenter can control the flow of the production without waiting for someone in production to change the graphics. In an election broadcast, for example, the presenter can independently choose to discuss a particular party, present its standings and its key representatives with a single touch.



Courtesy of TV Globo , Brazil

## iPad application for Interact

Orad's new application enables presenters to interact with the graphics using their iPad and control the content and flow of production while moving around the production space freely. Orad's iPad application provides true multi touch capabilities: several presenters can manipulate objects on screen and trigger different events within the graphic's templates simultaneously and independently. While the presenter is interacting with the graphics, there is real time video feedback to the iPad screen, providing the presenter with reference to the graphics he is interacting with. The iPad application can be used to control interactive graphics on any display that is connected to Orad's HDVG, enabling broadcasters to use their existing HD screen, video wall, LED wall, projector displays, etc.

## Interactivity in virtual studios

Orad's unique technology allows the introduction of interactive surfaces into virtual studio environments. With Interact, the presenter interacts directly with a traditional touch screen where he can view the content; the viewer at home sees only the presenter interacting with the on-screen graphics.

The creation and the controller preparations are identical to the preparations of "standard" interactive graphics, with the touch screen being "dressed up" in either green or blue color which are keyed out and become transparent during production. The interactive scene that is rendered on the touch screen is colored in blue or green as well so while it is visible to the presenter, it is keyed out during production.

The presenter then interacts with the scene rendered on the touch screen, which executes commands via 3DPlay to another scene that displays the final graphics results as part of the virtual set.



Courtesy of ABS CBN , Philippines

## Touch screens

Interact enables presenters to interact with displays using infrared frames, such as Barco with Smart board, U-Touch, and Primeview, or with multitouch systems such as DreaMTouch, primeTouch, iPad or radarTOUCH. Interact's integration also extends to Mitsubishi's Seventy-Series Display

## Radar TOUCH

The radarTOUCH device turns any video wall, monitor, or studio space (both conventional and virtual) into an interactive surface without requiring any additional modification to the display. The radarTOUCH device creates a plane of infrared light which the user breaks with his fingers; it then sends the coordinates to the rendering system so that the graphics can react accordingly. The radarTOUCH device can cover an area of up to 30 m wide and allows multiple users to interact freely with the graphics. Set up time and calibration takes only around 20 min and data is broadcasted over the Ethernet, enabling operators to quickly set up the device in different locations.



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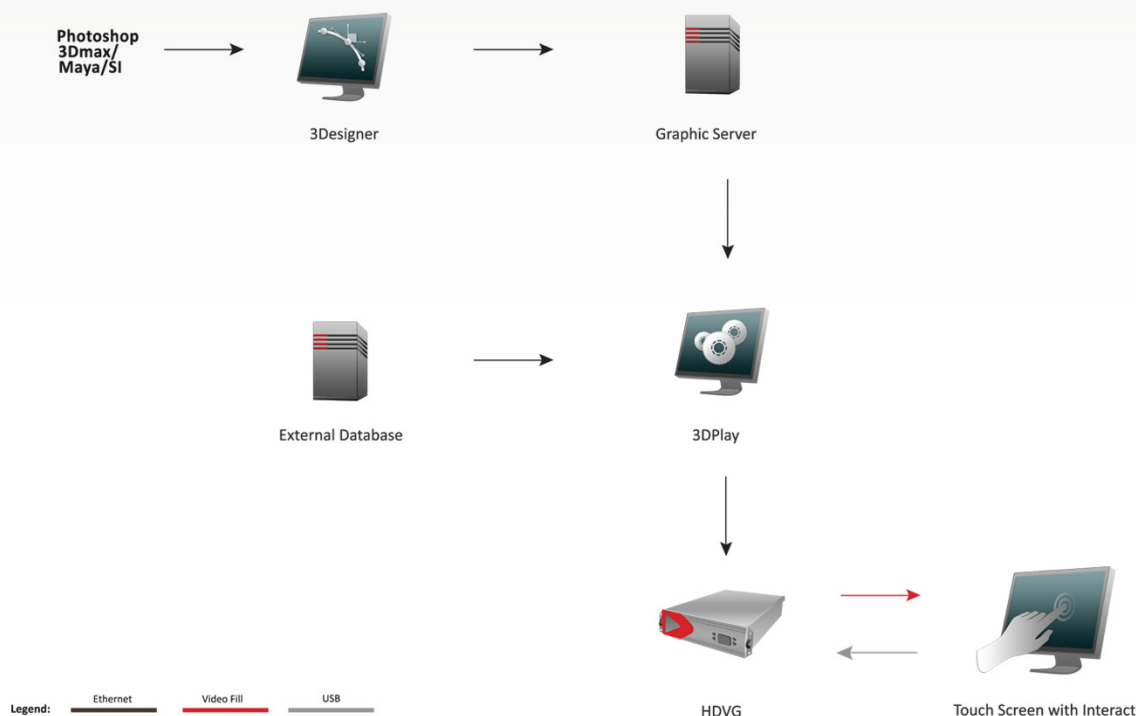
## Features

- Presenters can tap, drag and hold particular events
- Presenters can directly manipulate objects on screen, moving, scaling and rotating
- Objects have inertia and physical properties
- Interact can be used for conventional and virtual studios
- Interactivity is easily integrated into the existing production workflow
- Supports a wide variety of interactive devices and protocols

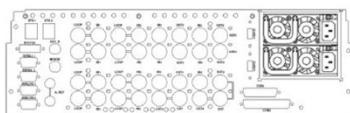


Manipulation of objects

## 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
- 2X 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 keys
- 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 and MPEG files

### Video Bypass

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