



Products

Clarity Matrix MultiTouch Video Wall,
Clarity Matrix 3D LCD Video Wall,
Clarity VCS Video Wall Processor,
Planar UltraRes Series,
Planar PS Series

Location

Clemson, South Carolina

Industry

Higher Education

Application

Digital Signage & Interactive
Learning

LARGE DEPLOYMENT OF PLANAR DISPLAYS SUPPORTS
UNIVERSITY'S GOALS FOR A UNIQUE AND EFFECTIVE
LEARNING ENVIRONMENT

Clemson University

Clemson is ranked among the top 20 universities in the country in large part for its commitment to delivering 21st century education. Many factors reflect this commitment including the design and technological advances of the new Watt Family Innovation Center. This center provides students, faculty and staff with technology – including advanced displays from Planar, a Leyard company – that allow for an almost unprecedented level of collaboration, interactive information engagement, cross-discipline learning as well as idea and materials sharing.

With the support of the Watt family, backing from industry leaders and extensive involvement of audio visual partner, BrightTree Studios (Pittsburgh, Pennsylvania), the Watt Family Innovation Center was designed around and operates on a complement of nearly 200 Planar displays, including the



*“With the technology
Planar has provided
us, this center
embodies our strategic
vision to deliver 21st*

*-Dennis Lester, PhD.,
Associate Director for
Science and Technology,
Watt Family Innovation Center*

Clarity® Matrix™ MultiTouch LCD Video Wall, the Clarity® Matrix 3D LCD Video Wall, Planar® UltraRes™ Series 4K LCD displays and Planar® PS Series HD LCD displays. Many of these displays are interactive, equipped with Planar’s multi-touch technology and deliver a high level of flexibility thanks to features such as the Clarity® Visual Control Station™ (VCS™). Further, the Planar® ERO™ (Extended Ruggedness and Optics™) technology, an optically bonded glass, provides the touch-enabled capability and protects a display’s surface.

In the new four-story Watt Family Innovation Center, Planar displays are implemented on nearly every level of the building, in a wide variety of locations. These include the main lobby/atrium, the building’s command and control center, the brand center, an emergency response room, classrooms, the main auditorium, breakout rooms and collaboration spaces, multipurpose rooms, the Creative Inquiry Office, the Academic Resource Center and the facility’s board room. The Planar displays function as individual units that are both fixed and mobile, and they comprise Clarity Matrix video walls ranging from two-by-two (2x2) to four-by-eight (4x8) configurations. The LCD displays range from 46 inches to 98 inches in size.

In some locations, content and configuration management is controlled through Planar’s Clarity VCS, a flexible and easy-to-use video wall processor. Further, the displays are hardwired or have

wireless access to computers, laptops, tablets and other sources. They can function as split-screen classroom whiteboards, allow wireless sharing (among both students and faculty) of information, ideas, and projects, and support digital signage, way finding, distance teaching and learning and video conferencing.

“With a comprehensive and advanced technology capability such as Planar has provided us, this center is an embodiment of the university’s strategic vision, which is to deliver interactive learning that truly prepares students for the future,” says Dennis Lester, Dennis Lester, PhD., who is Associate Director for Science and Technology for the Watt Family Innovation Center.

Clarity Matrix plays a key role

Planar’s Clarity Matrix LCD video wall solution was selected and is so widely used in the Innovation Center because it reflects the confidence of all IT and AV team members, particularly BrightTree Studios, the lead technology consultant on the project. “The design of Clarity Matrix is rock-solid and proven, and it offered a degree of versatility and usability that just wasn’t there in other manufacturers’ products,” says David Vargo, Principal and lead Project Designer, BrightTree Studios. As evidence, Vargo gives a key example of how Clarity Matrix – as well as the other Planar products – is used in the center.

For instance, the first floor lobby/atrium – which sees some 50,000 visitors per year – is equipped with five Clarity Matrix video walls of different sizes, and they all showcase the display’s interactive capability in a very high-traffic environment. “Here we have two-by-two, and four-by-four arrays of the 55-inch Clarity Matrix MultiTouch LCD Video Wall solution. Each of these displays offers 32 simultaneous touchpoints, so hundreds of students and visitors can have easy access to them, tapping the screens to navigate the building, find out what’s going on inside or across campus, or to gather in media lounges and use Clarity Matrix MultiTouch to work on projects together.”



“Having such a broad complement of technology from one manufacturer is unique and beneficial.”

*-David Vargo,
Project Designer, BrightTree Studios*



Also, although the lobby/atrium area is flooded with bright sunlight for a part of the day, the Clarity Matrix MultiTouch video wall displays are bright (800 nits) themselves. And they offer 1920 x 1080 resolution and 3500:1 contrast ratio, all of which showcases the 4K content on the LCD display that exhibits vivid colors and finely detailed graphics.

Planar displays combine to meet diverse learning requirements

The second floor level includes a large classroom and ad hoc spaces for student collaboration- all make use of Clarity Matrix. There also is the Academic Resource Center that contains all the technology typically found in a teaching space, and three 98-inch, interactive Planar UltraRes Touch displays are installed to explain how to use this technology. Planar UltraRes Series is a large LCD display that provides an alternative to a tiled video wall. Clemson's Dennis Lester likes Planar UltraRes Series for its image quality and slim-profile design. "The 4K picture, with its 3840 x 2160 native resolution, is visually impressive, and because the display is less than three inches in mounted depth, it fully complies with The Americans with Disabilities Act's standards that we are supporting throughout the center."

The third floor is the main academic activities area, which includes classrooms, workspaces, breakout rooms for student collaboration, and space for staff. Classroom technology includes 2x4 Clarity Matrix video walls – notably, 2D and 3D-enabled video walls for advanced data visualization and GIS instruction – and 46-inch, 50-inch and 70-inch Planar PS Series Full HD LCD displays. The Planar PS Series displays are both physically mounted and installed on moveable carts. "In this way, if there are large groups of students in a room, we can put displays close to them so they can easily see what the professor is putting up at the far end of the room, or they can be rolled out into hallway breakout spaces as needed," Lester says. "These displays are also wireless and touch enabled so professors and students can easily launch any of a number of applications such as Mersive Solstice or Skype."



Ultra-large, interactive auditorium video wall hosts custom-designed content and applications

The center's main auditorium makes use of Clarity Matrix in a significant way. The 200-seat space features a Clarity Matrix MultiTouch LCD Video Wall measuring nearly 290 square feet and eight feet wide by four feet high (8x4). While Lester calls the auditorium modest in size, he says the enormous interactive video wall suits it well. The space is used for large presentations and hosts content the university has specifically designed for it along with custom applications.

"The image quality is exceptional, and it's impressive when a presenter can use the touch capability to swipe content onto the video wall and manipulate it as the presentation dictates." And like so many of the other displays and video walls, the auditorium video – which is Planar's largest touch-enabled video wall to date – benefits from the company's distributed architecture that locates power supplies and other components away from the wall, thus minimizing the possibility of heat-related failures.

BrightTree's David Vargo adds that having such a broad complement of technology from one manufacturer is unique and beneficial. "You get a choice of products for different applications, but they are all highly engineered and compatible in many ways, factors that have huge cost of ownership implications. And with Planar as a single point of contact – at all levels – an end user like Clemson has a partner that is capable and committed to their success for years to come."

With a gift-in-kind of more than \$1 million worth of cutting-edge display technology, Planar has become the first Sustaining Innovation Partner for Clemson University's Watt Family Innovation Center. Clemson University President Dr. James P. Clements adds, "This partnership will enable our students, faculty and staff to put their ideas and innovations on display, literally, for the world to see. Planar, and its parent company Leyard, has been a global leader in display and digital signage technology for 30 years. We are very thankful that they are now at Clemson."

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