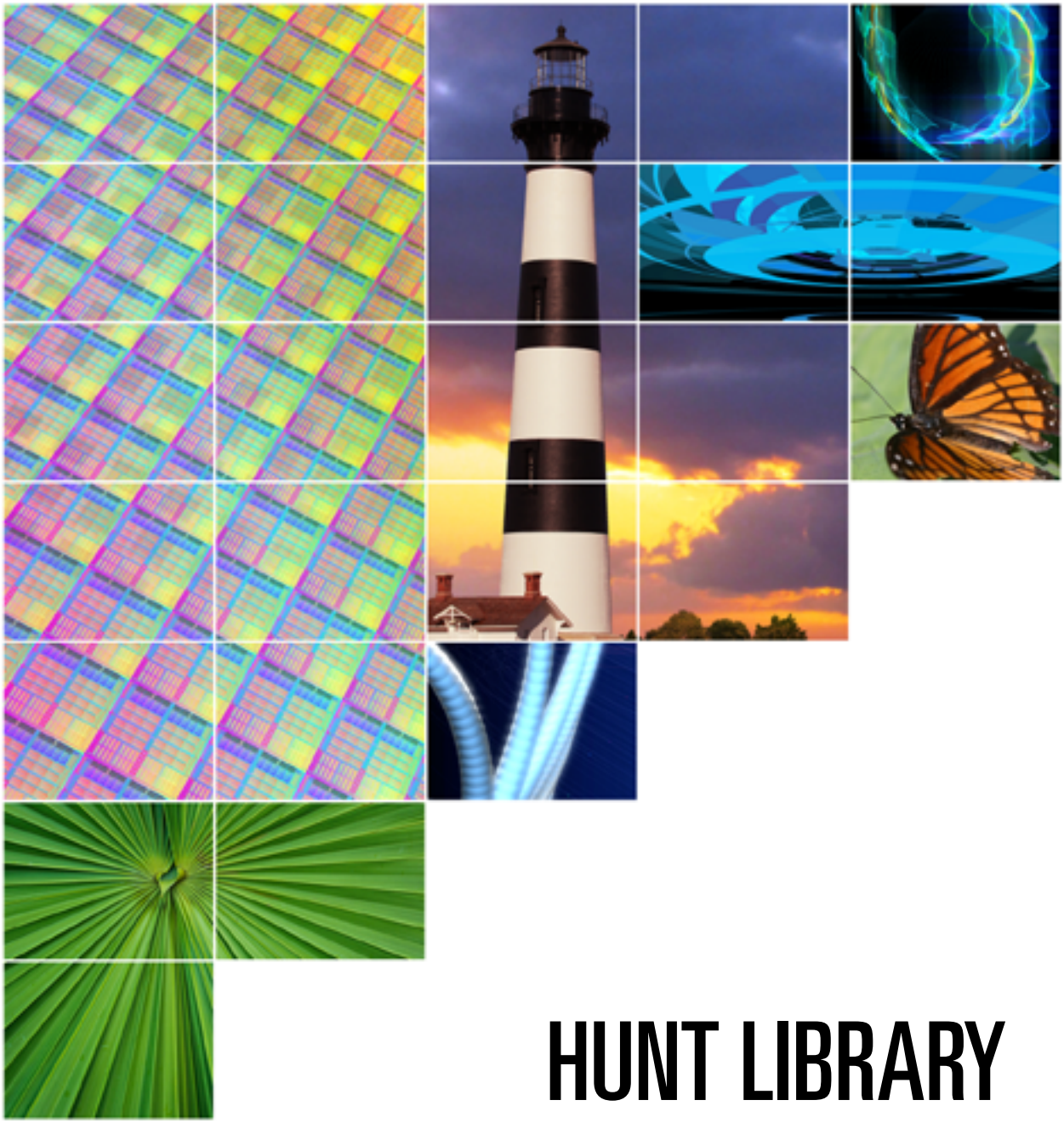


HUNT LIBRARY VIDEO WALL GUIDE

NCSU LIBRARIES

January 2014

INTRODUCTION

There's a bit of work involved.

If we did not tell you that up front—it would be dishonest. To make video wall content requires familiarity with media production software and strong design skills. However, communicating your or your organization's message in a bright new medium will be rewarding and fun.

Our four video walls make Hunt a storytelling building, integrating architecture and digital media to facilitate exciting new forms of communication. This guide has been provided to answer initial questions and to enable or enhance your ability to produce effective large-scale content. It includes basic specifications, formats and other variables that merit consideration in the production of content. Each array of Christie MicroTiles has unique characteristics and the guide is organized by wall. Use this guide in conjunction with the templates and other resources in the Producer's Toolkit at lib.ncsu.edu/videowalls.

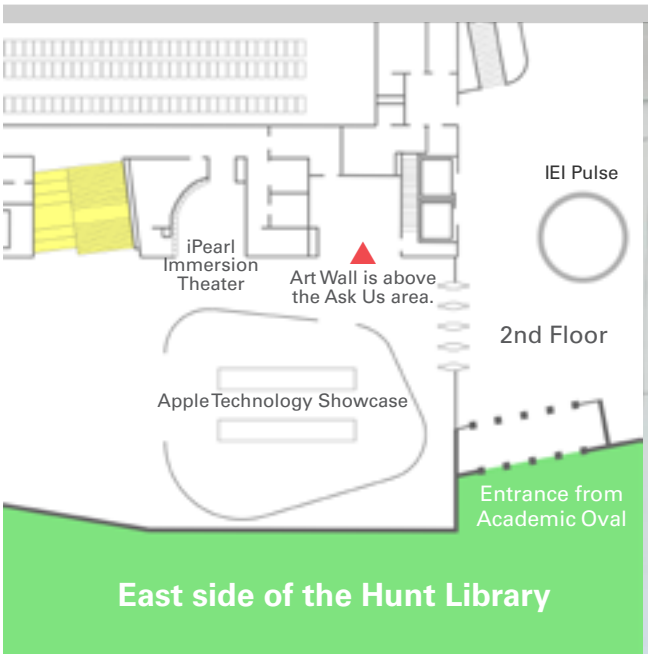
You are encouraged to contact us before you begin production work. All content submissions are subject to the editorial review of NCSU Libraries. Email group-videowalls@ncsu.edu.

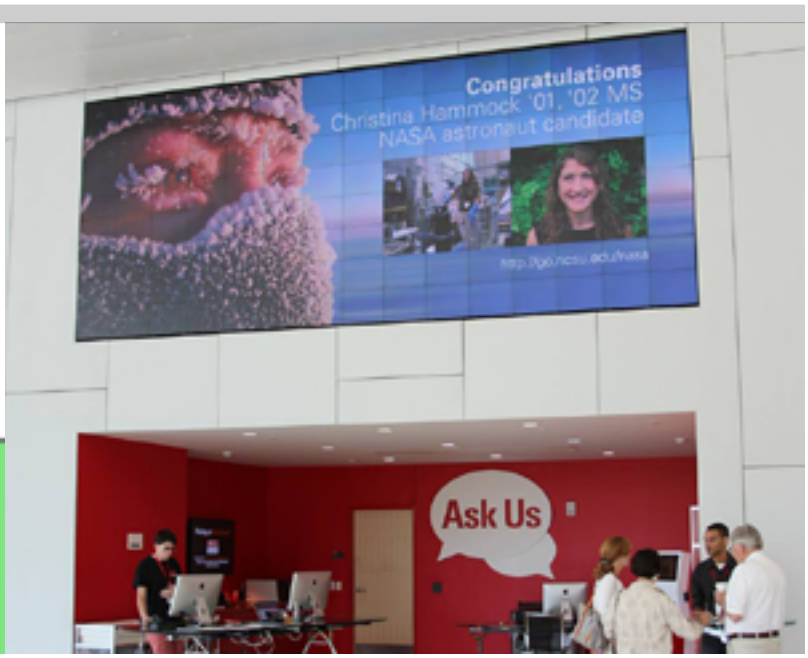
Finally, once you're ready to submit your content to us, go to the upload form at lib.ncsu.edu/videowalls.

Happy making!

Mike Nutt
Digital Media Librarian
Editor in chief, video wall content program

ART WALL



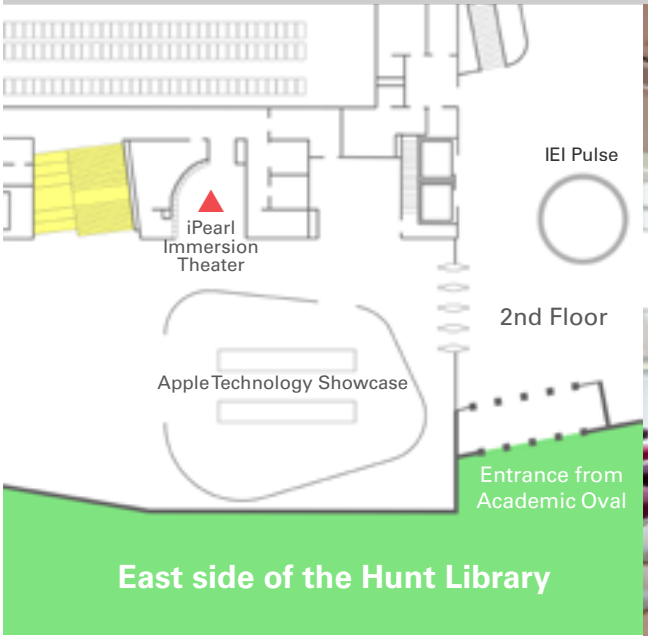


The Art Wall is particularly well suited to show digital artwork designed for the space. It can also be used to welcome visitors to the building, highlight the latest news and events, and advertise Libraries services. It is above our service point (the Ask Us) and near the Institute for Emerging Issues gallery and meeting spaces. It is across from the Technology Showcase. At night, it is visible from outside the building.

Dimensions and Environment

Width:	5760 pixels, 20 feet, 15 MicroTiles units
Height:	2304 pixels, 8 feet, 8 MicroTiles units
Aspect ratio:	2.5 (or 23:9)
Ambient light:	High during AM hours, medium at other times
Dwell time:	Short; high-traffic area, not a lingering zone
Sound:	None

iPEARL IMMERSION THEATER

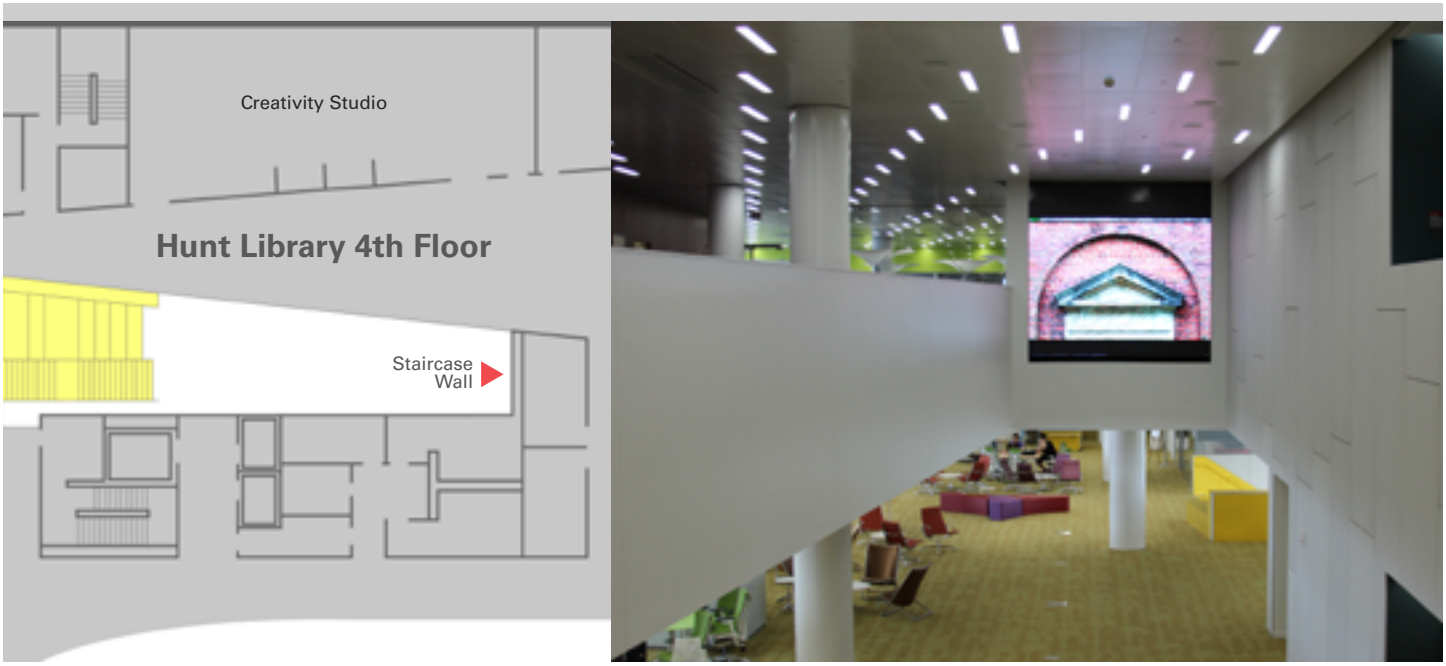


Prominently located to catch the eye of everyone entering the library, the Immersion Theater is Hunt's premiere digital exhibit space. The right side of the video wall inside the Theater has a gentle curve, which gives content an immersive quality. Visitors can walk up closely to examine details or have a seat to let the experience soak in. Audio capabilities make this the ideal video wall for communicating with voiceovers and soundtracks.

Dimensions and Environment

Width:	6816 pixels, 21.3 feet, 16 MicroTiles units
Height:	2240 pixels, 7 feet, 7 MicroTiles units
Aspect ratio:	27:9 (or 3.05)
Ambient light:	High during AM hours, medium at other times
Dwell time:	Variable; seating in Theater encourages longer dwell times
Sound:	Stereo with subwoofer

COMMONS WALL



Visible from both learning commons areas on the third and fourth floors, the Commons Wall is at the center of the library's academic activity. The Roman stairs opposite the Commons Wall can accommodate a large number of simultaneous viewers.

Dimensions and Environment

Width:	2880 pixels, 10.6 feet, 9 MicroTiles units
Height:	2400 pixels, 12 feet, 10 MicroTiles units
Aspect ratio:	1.2 (or 6:5)
Ambient light:	Medium-low
Dwell time:	Highly variable; 20 seconds to walk down staircase or hours for sitters
Sound:	Only for special events to limit disruption to Commons studying

VISUALIZATION WALL

The Visualization Wall features the most unique shape of any of the video walls in the Hunt Library. Located outside of the Teaching and Visualization Lab and near our Makerspace, its columnar arrangement presents a canvas that will appeal to the adventurous designer. The best content for this wall takes advantage of the noncontiguous arrangement to produce interesting user experiences. Content can be designed on a single rectangular canvas—the wall will automatically create a "picket fence" effect. For creators wishing to design for the columnar shape, a Photoshop template of the layout is available in the Producer's Toolkit at www.lib.ncsu.edu/videowalls.

Dimensions and Environment

Width:	3840 pixels, 25.3 feet including wall space, 9 MicroTiles units
Height:	1518 pixels, 10 feet, 10 MicroTiles units
Aspect ratio:	2.53 (or 23:9)
Ambient light:	Medium-low
Dwell time:	Highly variable. 30 seconds as people walk by or hours for campers.
Sound:	None

F.A.Q.

What kinds of media types can I put on the walls?
We can display image, video, and web assets. We cannot currently launch executable desktop applications or other kinds of content.

What file types are supported?
Video: .mov, .m4v, .mp4
Image: .jpg, .png

Are the video walls touch enabled?
The MicroTiles array in the Game Lab on the third floor supports up to 40 simultaneous touch points, but the public video walls in this guide are not touch-enabled.

Can I run content for my group's event at Hunt?
Yes and no. We curate our content program to inspire all Hunt visitors, not just the people who come for specific events. If you can create visually striking content about your organization that communicates the story of its impact, that's something that all our visitors could benefit from. Generally, we're looking for contributions to our permanent content portfolio that can wow our visitors day after day.

Can you create content for me?
No. The Libraries does not have support staff dedicated to content production for the walls. However, we can offer advice on how to use our templates and we can point you to resources to learn digital media production. If you are interested in collaborating on sponsored research, please email group-videowalls@ncsu.edu.

What are these MicroTiles you speak of?
MicroTiles are produced by Christie, and are a modular display technology. You can learn more about creating content for MicroTiles with Christie's very useful Content Production Guidelines found in the Producer's Toolkit at lib.ncsu.edu/videowalls.

Who visits the Hunt Library?
Engineering and Textiles students frequent Hunt (and, to a lesser degree, faculty). At night, students from main campus come to study there. The Library also houses Governor Hunt's Institute for Emerging Issues (IEI). Their meeting spaces attract academic, corporate, and nonprofit organizations that host conferences, symposia, and lectures. Visitors to IEI and the Hunt Library tend to be highly engaged, thoughtful, and curious about the next big thing.

BEST PRACTICES

Get pre-approval of your idea
The video wall content program is selective: while we welcome participation from the entire campus, we need to ensure that the quality of content is high. It is preferable to schedule a meeting with us at Hunt before you begin work. Contact group-videowalls@ncsu.edu.

Plan time for multiple drafts
We want your content to create memorable visitor experiences: if it can be improved, we will suggest revisions to your work. Please allow time to schedule at least one meeting with library staff to test your first draft (e.g., to do a basic visibility/readability test for the typeface you use).

Embrace the grid
Design with those tiny gridlines in mind. Try to contain visual elements within one tile or a cluster of tiles. Bury the seams into larger vertical and horizontal elements. Avoid having text fall into the lines.

Be colorful
Work with the most saturated colors—reds, greens, and blues—to get the most compelling results. Avoid large, solid fields of pale colors, especially white.

Limit text
Think big visuals and minimal text. The video walls are visual feasts, not reading platforms. Keep written content short: it should take no longer than 10 seconds to read all the text on a graphic. Ensure the text is easily read at the distance where the audience will be.

Design for short dwell times
Visitors to the library are there to get things done, so audience attention spans can be short. Design content that has stopping power and is quickly interpretable.

WEB & VIDEO

Video production guidelines

The most important consideration begins with footage capture: shoot at 1920 x 1080 or better, with good color compression (4:2:2 or better), on cameras with good optics and large sensors.

In some cases, you may choose to edit your footage at the full resolution specified in this guide. However, in most cases, you may need to compromise to spare your processors by editing your video on a canvas size that is half of full wall resolution (e.g. 3408 x 1120 for Immersion). Just ensure your canvas is at the same aspect ratio as the ones specified in this guide. Export h.264 encoded .mov files with no letterboxing at 18 Mbps.

Web development guidelines

While web delivery is an attractive option for some content, inferring how the layout will be affected on a large display is not straightforward for the layperson. Since you probably don't have a desktop with enough pixels to simulate our video walls, it is especially important to test your prototypes at Hunt with Libraries staff.

When programming for different size canvases it is import to represent pixels and pixel calculations as a % of the canvas and not fixed pixels. For example, a 50 pixel circle looks fine on a 1920 x 1080 display but when displayed on the walls it may look like a dust particle. Representing the circle at .026 x canvas width would give you a 50 pixel circle on the 1920 canvas and 156 pixel circle on a 6000 x 1200 canvas. Some other pointers:

- Web pages are displayed on the video walls using the latest stable version of Chrome.
- Build a dedicated template or CSS for displaying on "large-devices." Your HTML will probably need to be structured differently, with the CSS sizing things differently for large displays.
- Use responsive HTML practices.
- Use relative sizes. Percentages and relative positioning are better than absolute and fixed positioning to have responsive design.
- Validate your HTML using the W3C Validator Service. Valid HTML will behave more predictably.
- Test test test.

Questions about anything?
Email group-videowalls@ncsu.edu
http://lib.ncsu.edu/videowalls