



MODSIM WORLD 2025

FORGING THE FUTURE
BRIDGING THE GAPS THROUGH MODELING & SIMULATION

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Event Information

Up to Date Agenda

Please scan the QR for the most up-to-date agenda.



Survey & Participant List

You'll receive a survey and list of attendees (name and organization) via email a few days after the conference. Please complete the survey to make MODSIM World even more successful in the future.

Dress Code

Army: ACUs or Duty Uniform
Marine Corps: Service "C"
Navy: Service Khaki, Navy Service Uniform
Air Force: Short or Long Service Blues
Space Force: Short or Long Sleeve Service Blues
Coast Guard: Tropical Blue Long
Civilian: Business Casual

Social Media

Follow us on social media and be sure to post throughout the conference!
Use #MODSIMWorld



Dear MODSIM World 2025 Guests,

On behalf of the conference committee, it is with great enthusiasm that I welcome you to the 17th Annual International MODSIM World Conference. It is an honor to serve as Conference Chair for this premiere event bringing together the brightest minds in modeling and simulation (M&S). MODSIM World offers a vibrant forum to share cutting-edge ideas, highlight cross-domain impacts, and forge the connections that will help us collectively build the future. I am thrilled to welcome you to Norfolk as we embark on an inspiring and impactful three-day program.

This year's theme, *Forging the Future: Bridging the Gaps through Modeling and Simulation*, reflects our community's essential role in shaping what comes next. As our world evolves, technologically, geopolitically, and socially, the gaps we must navigate become increasingly complex and interconnected. These gaps may manifest as technological divides, interoperability challenges, workforce readiness needs, or policy lags in response to rapid innovation. From defense readiness and industrial transformation to immersive education and AI-powered design, M&S offers a unique capability to bridge these divides. M&S enables us to visualize systems of systems, test what's never been tried, and create safe environments to explore the unknown. The act of "forging" is not passive; it demands intention, energy, and persistence. It calls upon us to co-create resilient, adaptive solutions that thrive under pressure. Through cross-disciplinary collaboration, bold experimentation, and a commitment to forward-thinking design, our community is actively shaping a future equipped to meet the demands of tomorrow.

MODSIM World 2025 celebrates this spirit of intentional innovation and collective impact. Across three dynamic days of keynote sessions, technical paper presentations, expert panels, exhibits, workshops, and networking events, attendees will find inspiration, insight, and connection. You will engage directly with thought leaders, visionaries, and practitioners who are not only forecasting the future, they're building it. This year's program spans a wide range of application domains and includes contributions from across government agencies, defense institutions, private industry, academic research, and international partners. It is a true testament to the diversity and depth of the modeling and simulation ecosystem. We are honored to host distinguished speakers and panelists who are trailblazing in digital engineering, training transformation, immersive technologies, synthetic environments, predictive analytics, human-machine teaming, and more. Their presence

and contributions underscore the extraordinary breadth of what M&S can do, and the promise it holds for bridging the gaps that matter most.

The agenda includes returning favorites and exciting new additions, from strategic keynotes and paper sessions to the Simulation Century panel, STEM engagement, and spotlights on emerging tech. You'll also experience our robust exhibit hall and special events that foster dialogue and showcase innovation. Notably, this year's sessions echo the theme's call to "bridge the gaps", whether between physical and virtual domains, policy and practice, or legacy methods and modern tools.

As we anticipate what lies ahead, MODSIM World 2025 offers a place not just to observe the future, but to help forge it. I invite you to engage deeply, exchange ideas, and challenge assumptions. Whether you are a seasoned expert or new to the field, your voice matters in this dynamic and multidisciplinary space. Let us seize this opportunity to learn, collaborate, and shape what comes next.

I extend my deepest appreciation to our sponsors, presenters, and exhibitors for their generous support, enthusiasm, and commitment to advancing the field of modeling and simulation. Your contributions are instrumental in creating a vibrant and engaging environment where innovation flourishes and ideas take shape. I would also like to express heartfelt thanks to NTSA for their steadfast leadership and unwavering dedication to fostering the growth of the M&S community across sectors and generations. Their guidance continues to elevate the impact and reach of this conference year after year. Most importantly, I am especially grateful to our incredible planning committee, whose passion, creativity, and perseverance have transformed vision into reality. Their behind-the-scenes efforts over many months have crafted a program that not only reflects our theme but truly brings our mission to life. This event stands as a testament to their dedication and belief in the power of collaboration to shape the future.

Welcome to MODSIM World 2025, where innovation is not just imagined, it is forged!



Sincerely,

Claire Hughes

Design Interactive, LLC

Conference Chair, MODSIM World 2025





- Discrete Event Simulations
- Spatial Management Tools
- Web Based Applications
- Virtual Reality Training
- Animations/Visualizations
- Custom Software Solutions

DELIVERING THE MODSIM ADVANTAGE

Schedule at a Glance

MONDAY, 18 AUGUST

Registration Open

Granby Ballroom Foyer
0800 – 1700

Exhibits Open

Granby Ballroom Foyer
1200 – 1700

General Session & Special Events

Granby Ballrooms ABCD
1300 – 1415

Networking Break & Exhibits

Granby Ballroom Foyer
1415 – 1445

Special Event

Granby Ballrooms ABCD
1445 – 1615

Networking Break & Exhibits

Granby Ballroom Foyer
1615 – 1630

Special Event

Granby Ballrooms ABCD
1630 – 1700

No Host Social

The Grain Restaurant
1700

TUESDAY, 19 AUGUST

Registration Open

Granby Ballroom Foyer
0700 – 1730

Continental Breakfast

Granby Ballroom Foyer
0745 – 0900

Exhibits Open

Granby Ballroom Foyer
0745 – 1830

General Session & Special Event

Granby Ballrooms ABCD
0900 – 1100

Networking Break & Exhibits

Granby Ballroom Foyer
1100 – 1115

Paper Session I

See Agenda for Rooms
1115 – 1230

Lunch & Exhibits

Granby Ballroom E & Foyer
1230 – 1400

General Session

Granby Ballrooms ABCD
1400 – 1415

Paper Session II

See Agenda for Rooms
1415 – 1530

Networking Break & Exhibits

Granby Ballroom Foyer
1530 – 1545

Special Event

Granby Ballrooms ABCD
1545 – 1715

Opening Reception

Granby Ballroom Foyer
1715 – 1830

WEDNESDAY, 20 AUGUST

Registration Open

Granby Ballroom Foyer
0700 – 1500

Continental Breakfast

Granby Ballroom Foyer
0745 – 0900

Exhibits Open

Granby Ballroom Foyer
0745 – 1500

General Session & Special Event

Granby Ballrooms ABCD
0900 – 1015

Networking Break & Exhibits

Granby Ballroom Foyer
1015 – 1030

Paper Session III

See Agenda for Rooms
1030 – 1145

STEM Event

Granby Ballroom Foyer
1030 – 1145

Lunch & Exhibits

Granby Ballroom E & Foyer
1145 – 1300

Paper Session IV

See Agenda for Rooms
1300 – 1415

Networking Break & Exhibits

Granby Ballroom Foyer
1415 – 1430

Special Event

Granby Ballrooms ABCD
1430 – 1600

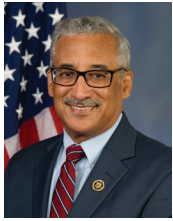
Closing Remarks & Adjourn

Granby Ballrooms ABCD
1600



Congressional Keynote

TUESDAY, 19 AUGUST | 1400 – 1415 | GRANBY BALLROOMS ABCD



Hon. Bobby Scott

Congressman, VA-03

Congressman Robert C. “Bobby” Scott has represented Virginia’s third congressional district in the U.S. House of Representatives since 1993. Prior to his service in Congress, he served in the Virginia House of Delegates from 1978 to 1983 and in the Senate of Virginia from 1983 to 1993.

During his tenure in the Virginia General Assembly, Congressman Scott successfully sponsored laws critical to Virginians in education, employment, health care, social services, economic development, crime prevention and consumer protection. His successes in the state legislature included laws that increased Virginia’s minimum wage, created the Governor’s Employment and Training Council and improved health care benefits for women, infants and children.

Congressman Scott has the distinction of being the first African-American elected to Congress from the Commonwealth of Virginia since Reconstruction and only the second African-American elected to Congress in Virginia’s history. Having a maternal grandfather of Filipino ancestry also gives him the distinction of being the first American with Filipino ancestry to serve as a voting member of Congress.

Congressman Scott currently serves as the Chairman of the

Committee on Education and Labor. In this capacity, he is advancing an agenda that focuses on improving equity in education, freeing students from the burdens of crippling debt, protecting and expanding access to affordable health care, ensuring workers have a safe workplace where they can earn a living wage free from discrimination, and guaranteeing that seniors have a secure and dignified retirement.

From 2015-2018, he served as the ranking member of what was then called the Committee on Education and the Workforce and developed a strong record of working across the aisle to pass critical legislation. In 2015, he was one of the four primary authors of the Every Student Succeeds Act, which reauthorized the Elementary and Secondary Education Act for the first time in 13 years and replaced the No Child Left Behind Act. Additionally, in 2017, he worked to secure passage of legislation to reform and update our nation’s career and technical education system, as well as the juvenile justice system in 2018, which were both signed into law by President Donald Trump. The latter legislation, the Juvenile Justice Reform Act, contained core tenets of Congressman Scott’s Youth Prison Reduction through Opportunities, Mentoring, Intervention, Support, and Education (Youth PROMISE) Act, which he had introduced in every Congress since 2007.

Industry Keynote

TUESDAY, 19 AUGUST | 0900 – 0930 | GRANBY BALLROOMS ABCD



Jennifer Riley, Ph.D.

Director, RDT&E, Design Interactive, LLC

Dr. Jennifer Riley is the Director of Research, Development, Test, and Evaluation (RDT&E) at Design Interactive, LLC. She brings 25+ years of experience in human factors, cognitive engineering, and human-systems integration, with a focus on systems that support situation awareness, decision-making, and optimized human performance.

Her work in cognitive skills training, performance augmentation, and human performance assessment has required extensive application of domain and cognitive task analysis, sensory task analysis, functional task analysis, and technology effectiveness evaluation. She has conducted numerous system and process evaluations across domains including power systems, oil and gas, and military command and control to identify key design and training issues impacting affective, behavioral, and cognitive aspects of performance.

In her current role, she serves as a scientific advisor for the division and leads Design Interactive’s four research portfolios: Automated Performance Assessment, Digital Twins, eXtended

Reality (XR) Solutions, and Human Systems Integration. She also leads cross-portfolio research, ensuring enabling technologies can be effectively integrated into internal and external training and operational systems.

Dr. Riley’s recent projects include applying AI and machine learning to auto-generate training content for the Environmental Protection Agency and developing conversational AI tools to train critical decision-making skills for compliance officers. She has led research on the psychological effects of augmented reality interfaces for medical training in Tactical Combat Casualty Care (TC3), designed innovative technologies to extract 2D data from video and images and translate the data into 3D virtual game-based assets, developed an AR-based multimodal mobile application to aid individuals with cognitive and functional limitations in independent navigation, and created novel cognitive skills training for human performance augmentation.

Dr. Riley is an experienced research manager who has led projects for the U.S. Army Research Laboratory, the U.S. Army Research Institute, the Office of Naval Research, the Department

Keynote Speakers

of Homeland Security, the Department of Transportation, the Federal Law Enforcement Training Center, the Office of the Secretary of Defense, and NASA Johnson Space Center. Prior to joining Design Interactive, she was a Principal Research Associate at SA Technologies, Inc., where she managed research and development programs for the Department of Defense and the Department of Homeland Security. Her work there included investigations of automation effects on situation awareness and decision-making, the efficacy of adaptive automation in complex operations, and studies of space crew situation awareness and autonomy.

Beyond her research, Dr. Riley provides consulting services to schools in the Madison County School District, developing and delivering workshops on technology integration in the classroom and leveraging emerging technologies to support student

achievement and increase parent engagement.

Dr. Riley earned graduate degrees in Industrial Engineering and Psychology, as well as an undergraduate degree in Chemical Engineering, from Mississippi State University. She is a past Executive Council Member and past Chair of Internal Affairs for the Human Factors and Ergonomics Society. She is a member of the National Training and Simulation Association. She has a passion for community activism and is a member of Delta Sigma Theta Sorority, Incorporated, a service – based organization that focuses on social action and public service to the community. She resides in Madison, Mississippi, with her husband, Mr. Dominick Riley, a recently retired U.S. Postal Inspector and former attaché to the U.S. Embassy in Kingston, Jamaica. They have three daughters: Marissa, Courtni, and Makenna.

NTSA Leadership



VADM Sean S. Buck, USN (Ret.)

President, National Training and Simulation Association

Vice Admiral Sean S. Buck, a native of Indianapolis, Indiana, graduated from the U.S. Naval Academy in 1983 and retired from naval service after 40+ years of commissioned service. His active-duty career culminated as the 63rd Superintendent of the U.S. Naval Academy, our nation's premier leadership development institution where he gained invaluable and in-depth knowledge and experience running an institution of higher education. Having commanded six times in the military, he has tremendous applied-leadership experience at the highest levels of military and government as well as specialization in strategy and policy development and international affairs. On June 3rd, 2024, VADM Buck embarked on his current position as the President of the National Training and Simulation Association (NTSA), a non-profit affiliate of the National Defense Industry Association (NDIA). In his role, he leads a team of 15 full time staff and over 300 volunteers that represent and advocate for its membership of technology companies involved with cutting edge innovation and research in the modeling and simulation space for training systems. VADM Buck's operational naval service was as a Naval Flight Officer in the Maritime Patrol and Reconnaissance naval aviation community accumulating over 4000 flight hours and command-level leadership at the Squadron, Air Wing, and three higher-level organizations culminating with command of the US FOURTH Fleet. Ashore, he had over a decade of service in the Pentagon on multiple tours of duty with the Navy Staff as well as the Joint Chiefs of Staff. During these tours he specialized in strategy and policy development, international affairs, as well as personnel

management. Additionally, he leveraged unique opportunities in his career by earning designation as a member of the Navy's Space Cadre while serving at the National Reconnaissance Office and gained tremendous experience within collegiate sports by serving both as a Division I athlete (Tennis) as well as a member of the NCAA's Division I Board of Directors and a member of the Executive Committee of the American Athletic Conference. VADM Buck's academic credentials include: a Master of Arts in Security Policy Studies from The George Washington University; completed studies at the College of Naval Command and Staff, U.S. Naval War College; the Armed Forces Staff College; a year-long fellowship with the Massachusetts Institute of Technology's Seminar XXI Foreign Politics, International Relations, and the National Interest program; Executive Certificate Programs at both the Harvard Kennedy School and Harvard Graduate School of Education; and a special assignment as a Senior Fellow on the Chief of Naval Operations Strategic Studies Group-an innovation think tank for the Navy, tasked with solving the service's most vexing problem sets. Additionally, he serves on the Advisory Board of Academy Securities and its Geopolitical Intelligence Group, the Advisory Board for Synergist Technology, the Military Advisory Board for First Command Financial Services, as a Trustee to the US Naval Academy's Athletic and Scholarship Program, and as a member of the Leadership Committee for the US National Naval Museum Development Foundation. To date, he has also been engaged as a keynote speaker for the U.S. Department of Agriculture and Babson College's E-Tower Young Entrepreneurs Conference.





Debbie Langelier, CEM

Senior Vice President, National Training and Simulation Association

Debbie Langelier, CEM is the Senior Vice President of the National Training and Simulation Association (NTSA), a nonprofit organization based in Arlington, VA. In her role, she oversees the management of all NTSA staff and operations, including membership, marketing, certification, and events. Langelier has been instrumental in initiating and maintaining a high-level security program for both NTSA and I/ITSEC, the organization's flagship event. Her passion for industry, combined with an unwavering focus on client satisfaction, enables her to lead with innovative solutions and unmatched expertise across every project she manages.

Joining NTSA in 2004, Langelier initially served as the Director of Exhibits & Sponsorships before advancing to the role of Assistant Vice President. In her initial role, she was credited with driving a growth rate of more than 30 percent, managing exhibits, sponsorships, and marketing for six key events, including the Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC), the largest training and simulation event in the world. Her strategic approach to marketing has established NTSA with a strong year-round digital presence, positioning the organization for continued success and growth in the future.

Langelier's event career began in 1989 as a General Service Contractor, where she quickly advanced through the ranks,

gaining invaluable hands-on experience and mastering every facet of event organization. Specializing in comprehensive solutions for conferences, trade shows, corporate events, and private functions, she earned a reputation for excellence and a keen attention to detail. Her work laid the foundation for her expertise in the events industry, where she has become a trusted leader and advisor.

As a Certified Exhibit Manager with over 30 years of experience in the industry, Langelier's background in customer service, creative services, and association sales management gives her a deep understanding of the nonprofit sector and the trade show industry. She believes strongly in the power of connecting people and values the role of events in fostering important relationships and collaborations.

As Senior Vice President at NTSA, Langelier continues to advocate for the use of advanced simulation technologies—such as artificial intelligence, virtual reality, and serious gaming—to support training, education, and analysis within national security markets. NTSA, an affiliate of the National Defense Industrial Association (NDIA), supports these efforts, representing a membership of over 80,000 individuals and nearly 1,600 corporate members, all while ensuring the defense industrial base remains at the forefront of innovation and technological advancement.



Discover the many benefits of NTSA corporate membership

Corporate members of NTSA receive early space selection and discounts on exhibits space at I/ITSEC. Whether you are a large or small company, there is an NTSA membership option for you.

Corporate Membership Options

Sustaining

- \$5,000 in dues
- First choice of booth space (during I/ITSEC)
- 10% discount on booth space for I/ITSEC (Maximum discount = \$5,000)
- Seat on Executive Committee and Invitation to M&S Awards Dinner
- Additional exposure at I/ITSEC

Regular

- \$1,250 to \$3,750 in dues (depending on # of employees involved in training and/or M&S)
- Second round of booth space selection
- 5% discount on booth space for I/ITSEC (Maximum discount = dues amount paid)

Associate

- \$500 in dues; designed for smaller companies
- Third round of booth space selection
- No discount on booth space for I/ITSEC

All corporate members of NTSA receive these core benefits:

- Reduced registration fees for all employees for all NTSA & NDIA events
- Member listing with hyperlink on the NTSA website
- NTSA's monthly e-newsletter
- National Defense, NDIA's award-winning magazine

Visit [NTSA.org/Membership](https://www.ntsaa.org/membership); Contact Erica Albrittain at ealbrittain@NTSA.org



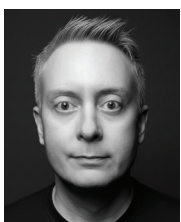
Conference Leadership



Claire Hughes | Conference Chair

Portfolio Manager, Design Interactive, LLC

Senior Research Associate and the Human-Systems Integration Portfolio Manager at Design Interactive, LLC, with over a decade of experience in Human Factors Engineering and Human-Systems Integration. Claire specializes in project management, end-user evaluations, and research analysis for training and operational systems, and has successfully led cross-functional teams through the full lifecycle of research, development, test, and evaluation initiatives, resulting in user-centered solutions that empower end-users. Claire manages multiple research studies exploring the impact of augmented and extended reality (AR/XR) on the human sensory system and drives the design and delivery of innovative technologies across the DoD and VA. Her expertise extends to cognitive ergonomics, usability testing, and instructional design, enabling her to optimize learning processes and enhance user experiences through evidence-based principles and learner feedback. In addition to her technical expertise, Claire is actively involved in advancing the defense industry through her support of Women in Defense, as Program Chair. She is the conference chair for MODSIM World 2025 and a member of the I/ITSEC program committee. Her ability to align strategic objectives with operational execution and deliver impactful, scalable solutions underscores her commitment to innovation and excellence in the defense and technology sectors.



Vance Souders | Deputy Conference Chair

Founder, Plas.md; Senior Manager, Digital Innovation, Thermo Fisher Scientific

Vance Souders has over 23 years of software engineering, design, and leadership experience focused on creating cutting-edge immersive experiences. He has played a critical role or spearheaded the development of over 40 innovative projects, driving value across various verticals, including health care, defense, and education. He has led diverse teams composed of on-site and remote engineers, artists, designers, clinicians, and scientists across multiple time zones.



Angelica Jasper, Ph.D. | Program Chair

Senior User Experience Researcher, John Deere

Dr. Angelica Jasper is a Senior User Experience Researcher at John Deere within the Intelligent Solutions Group. She operates at the forefront of intuitive usability and cutting-edge product innovation, driving solutions that enhance human performance across automated, autonomous, and XR technologies. As the lead UX researcher for all Guidance products at John Deere, she provides strategic, evidence-based leadership that shapes the future of automation and autonomy in precision agriculture. Previously, Dr. Jasper served as the Human Engineering Technical Lead for Virtual and Augmented Reality at Boeing Defense, Space & Security, with her past work including the development of XR tools for the Air Force, Space Force, and Navy. She remains active in academic and professional communities publishing and reviewing research, with a specialization in cybersickness within simulated environments. Dr. Jasper earned her Ph.D. in Human-Computer Interaction (Industrial and Manufacturing Systems Engineering) at Iowa State University.



Connor Parsey | Deputy Program Chair

Science and Technology Manager, U.S. Army DEVCOM SC STTC

Connor Parsey is a Science and Technology Manager for the U.S. Army DEVCOM at the Simulation and Training Technology Center (STTC) in Orlando. Mr. Parsey manages medical simulation research and development projects aimed to advance simulation technology, increase training effectiveness, improve haptic fidelity, and ultimately impact the warfighter. His research interests include dynamic wounds, human tissue characterization, synthetic tissue surrogates, virtual and augmented reality simulations, 3D printing, bioprinting, and medical haptics. He has a BS in Mechanical Engineering and a MS in Mechanical Engineering from the University of Central Florida.



Agenda

MONDAY, 18 AUGUST

0800 – 1700 **REGISTRATION OPEN**
GRANBY BALLROOM FOYER

1200 – 1700 **EXHIBIT HALL OPEN**
GRANBY BALLROOM FOYER

1300 – 1315 **WELCOME & OPENING REMARKS**
GRANBY BALLROOMS ABCD

Claire Hughes

2025 Conference Chair, Design Interactive, Inc.

VADM Sean Buck, USN (Ret.)

President, National Training and Simulation Association (NTSA)

SCHOLARSHIP AWARDS PRESENTATION

VADM Sean Buck, USN (Ret.)

President, National Training and Simulation Association (NTSA)

RADM JAMES ROBB SCHOLARSHIP AWARD @ MODSIM

The NTSA RADM James Robb scholarships are being offered to prepare individuals for leadership in the Modeling & Simulation, Training, and Education communities. RADM James Robb served as the NTSA President from 2012 – 2023, a keystone achievement during his presidency was the continued expansion of the NTSA Scholarship program. RADM Robb's continued commitment to growing the modeling and simulation technology workforce was evident through his unwavering support of these scholarships. These core programs continue to identify and credential a professional workforce and established educational programs to stimulate interest in M&S careers at all grade levels. RADM Robb believed that by investing in our future workforce, these scholarships will encourage expansion of the I/ITSEC community and promote innovation through direct investment in our community's future leaders.



Abigail Berardi

Computer: M&S & Electrical Engineering
Old Dominion University



Elexiah Smart

Computer & Electrical Engineering
Old Dominion University

1315 – 1415 **SPECIAL EVENT: Accelerate & Innovate – Transforming Defense Partnerships and Acquisition**
GRANBY BALLROOMS ABCD

Join an invited panel of leaders from NATO, Navy, and leading-edge industry strategists for large and small businesses as they unveil bold, transformative approaches to revolutionizing defense acquisition in modeling, simulation, and training systems. This panel will spotlight breakthrough strategies for harnessing cutting-edge ideas, forging agile partnerships with start-ups, research institutions, and accelerating mission success in an increasingly complex and fast-paced defense environment. Attendees will gain actionable insights and collaborative methods for pushing innovation beyond traditional contracting models.

MODERATOR

VADM Sean Buck, USN (Ret.)

President, NTSA

Bob Kleinhample, USA (Ret.)

CEO & President, PioneerSim

Jay Pitman

Vice President and General Manager; Training, Logistics and Simulation, Lockheed Martin Rotary and Mission Systems

Brian Vogt

M&S Section Head, Next Generation M&S Programme Director,
NATO HQ SACT

1415 – 1445 **NETWORKING BREAK & DEDICATED EXHIBIT TIME**
GRANBY BALLROOM FOYER

Agenda

1445 – 1615

SPECIAL EVENT: Wargaming at the Crossroads – Balancing Traditional Methods and M&S Innovation in DoD

GRANBY BALLROOMS ABCD

This panel examines the evolving tension within Department of Defense wargaming, where time-honored tabletop approaches clash with emerging modeling and simulation (M&S) technologies. Traditional wargaming—rooted in human decision-making, abstraction, and experiential learning—faces pressure to integrate computational tools promising scalability, multi-domain fidelity, and data-driven insights. Yet this fusion risks diluting the strategic intuition and adaptability that define manual methods. Experts representing both paradigms will debate critical questions:

- Can M&S enhance traditional wargaming’s pedagogical value without undermining its “design for effect” philosophy?
- How can hybrid approaches overcome limitations in representing multi-scale operations (e.g., cross-domain, cognitive warfare)?
- What safeguards ensure technology complements—rather than replaces—human ingenuity in scenario design and analysis?

MODERATOR

Luke DeVore

Managing Partner, Voltron Group

Sebastian Bae

Senior Game Designer, Center for Naval Analyses (CNA)

Chad Bates, Ph.D.

Wargaming Solution Architect, BAE Systems, Inc.

Stephen Nelson

Simulation Officer, U.S. Army Futures and Concepts Center

Capt Nathan Tidwell, USMC

Wargaming Operations Officer, Brute Krulak Center of Innovation & Future Warfare, Marine Corps University (MCU)

1615 – 1630

NETWORKING BREAK & DEDICATED EXHIBIT TIME

GRANBY BALLROOM FOYER

1630 – 1700

SPECIAL EVENT: One-Minute Spotlight

GRANBY BALLROOMS ABCD

In this dynamic session, presenters distill their professional essence into a single slide and 60 seconds. Presenters will introduce themselves, outline their services or capabilities, and share their conference goals. Whether you’re a researcher, entrepreneur, or industry professional, this rapid-fire spotlight ensures maximum impact in minimal time.

MODERATOR

Luke DeVore

Managing Partner, Voltron Group

1700

NO HOST SOCIAL

THE GRAIN

TUESDAY, 19 AUGUST

0700 – 1730

REGISTRATION OPEN

GRANBY BALLROOM FOYER

0745 – 0900

CONTINENTAL BREAKFAST

GRANBY BALLROOM FOYER

0745 – 1830

EXHIBIT HALL OPEN

GRANBY BALLROOM FOYER

0900 – 0905

DAY TWO WELCOME & OPENING REMARKS

GRANBY BALLROOMS ABCD

Claire Hughes

2025 Conference Chair, Design Interactive, LLC



Agenda

0900 – 0930 **INDUSTRY KEYNOTE ADDRESS**
GRANBY BALLROOMS ABCD
Jennifer Riley, Ph.D.
Director, RDT&E, Design Interactive, LLC

0930 – 1100 **SPECIAL EVENT: The Simulation Century – The Intelligence Community in the Simulation Century**
GRANBY BALLROOMS ABCD

This is our fourteenth annual session to address the growing issue of managing the human/ machine interface as we hurtle towards the Singularity and the Metaverse. We will continue our discussion of how to achieve fluency with smarter balance between humans and machines to optimize outcomes. The Simulation Century Panel presentations this year will focus on the challenges and opportunities of implementing AI and simulation in the intelligence community.

Slouching Towards AGI

Richard Boyd
CEO, UltiSim, Inc.

International Intelligence Cooperation, Recruiting and Training

Robin Lobb
Vice President, Membership, International Association for Intelligence Education (IAFIE)

Real Spy Stories in Simulations

Adam Leslie
Executive Director, ASPI USA; President, Real Spy Comics

1100 – 1115 **NETWORKING BREAK & DEDICATED EXHIBIT TIME**
GRANBY BALLROOM FOYER

1115 – 1230 **PAPER SESSION I: Human-AI Teaming in Defense Ops**
DEFENSE TRACK | MEETING ROOM: FUSION

1115 – 1140 **BEST PAPER NOMINEE**

Application of the Human Readiness Levels to AI Intensive Systems

Presenter: Cansu Yalim
Old Dominion University

Holly Handley, Ph.D.
Old Dominion University

1140 – 1205 **Integrating Human-AI Teaming into Modeling and Simulation for Live, Virtual, Constructive (LVC) Environments**

Presenter: Thomas Holland, Ph.D.
Georgia Tech Research Institute

Elizabeth Whitaker, Ph.D.
Georgia Tech Research Institute

Larry Kim, Ph.D.
Georgia Tech Research Institute

Ethan Trehwitt
Georgia Tech Research Institute

Margaret Loper, Ph.D.
Georgia Tech Research Institute

Moon Kim
Georgia Tech Research Institute

Brian Martens
Georgia Tech Research Institute

Clayton Hutto
Georgia Tech Research Institute

1205 – 1230 **Emotion-Aware Cognitive Load Management in Human-AI Teaming for Defense Operations**

Presenter: Ancuta Margondai
University of Central Florida

Sara Willox, Ph.D.
University of Central Florida

Cindy Von Ahlefeldt
University of Central Florida

Mustapha Mouloua, Ph.D.
University of Central Florida

Agenda

1115 – 1230 PAPER SESSION I: Safety & Infrastructure Risk Mitigation Modeling

INDUSTRY TRACK | MEETING ROOM: ENERGY

1115 – 1140 **Augmented Virtuality and Infrared Radiation Sensing for HVDC Valve Monitoring**

Presenter: Gerson Lima, Ph.D.
Computer Graphics Works

Joao Mendes de Lima
Computer Graphics Works

Bruno Guilherme
Computer Graphics Works

Jader de Oliveira
Eletronorte, Eletrobras

Lilian Queiroz
Eletronorte, Eletrobras

Jai Neto
Federal University of Uberlândia

A. Andrade
Federal University of Uberlândia

A. Cardoso
Federal University of Uberlândia

1140 – 1205 **Analysis of Space Debris Risk to Satellites in Low Earth Orbit**

Presenter: COL Joseph Guzman, USA (Ret.)
Space Cowboy ADR

Jacob Barhak, Ph.D.
Jacob Barhak Analytics

1205 – 1230 **Reality Capture and 3D Modeling Applied to Dam Safety Monitoring: A Digital Twin Approach for Hydroelectric Infrastructure**

Presenter: Gerson Lima, Ph.D.
Computer Graphics Works

Joao Mendes de Lima
Computer Graphics Works

Jader de Oliveira
Eletronorte, Eletrobras

Lilian Queiroz
Eletronorte, Eletrobras

Alexandre Cardoso
Federal University of Uberlândia

Jean Garcia
Federal University of Uberlândia

Maria Cristina Vidigal de Lima
Federal University of Uberlândia

1115 – 1230 PAPER SESSION I: Simulation in Education Design

TRAINING & EDUCATION TRACK | MEETING ROOM: MOMENTUM

1115 – 1140 **Bridging Disciplines: Developing an Undergraduate Modeling and Simulation Course for Multidisciplinary Engineering Applications**

Presenter: Mileta Tomovic
Old Dominion University

Cynthia Tomovic
Old Dominion University

1140 – 1205 **Project-Based Learning in Modeling and Simulation Education: Positive Trends Over Three Cohorts**

Presenter: Stephanie Fussell, Ph.D.
Aptima, Inc.

Summer Rebensky, Ph.D.
Aptima, Inc.

Maria Chaparro Osman, Ph.D.
Aptima, Inc.

Samantha Perry, Ph.D.
Aptima, Inc.

William Stalker
Aptima, Inc.

Stephen McGee
USAF AFMC 711 HPW/RHWOW

1205 – 1230 **Designing for Transfer: Developing a Skill-Based Simulation Using Learning Engineering and Game Design Methodologies**

Presenter: Jessica Johnson, Ph.D.
Old Dominion University

John Shull
Old Dominion University

Austin Connolly
Old Dominion University

Hector Garcia
Old Dominion University

1230 – 1400 **LUNCH & DEDICATED EXHIBIT TIME** GRANBY BALLROOM E & GRANBY BALLROOM FOYER



Agenda

1400 – 1415 **CONGRESSIONAL KEYNOTE ADDRESS**
GRANBY BALLROOMS ABCD
Hon. Bobby Scott
U.S. Congress, 3rd District, VA

1415 – 1530 **PAPER SESSION II: Decision Advantage in Military Operations**
DEFENSE TRACK | MEETING ROOM: FUSION

1415 – 1440 **A Computer-assisted Multi-Domain Operations Wargaming Concept**

Presenter: Philip Muurmans
Royal Netherlands Aerospace Centre (NLR)
Koen Bezemer
Royal Netherlands Aerospace Centre (NLR)

Armon Toubman, Ph.D.
Royal Netherlands Aerospace Centre (NLR)

1440 – 1505 **Simulating the Skies: Unleashing AI for Adaptive Airborne Defense**

Presenter: Robin Grimes
Intuitive Research and Technology Corporation (INTUITIVE®)
Connor Green
Intuitive Research and Technology Corporation (INTUITIVE®)
Jeff Souder
Intuitive Research and Technology Corporation (INTUITIVE®)

William Marx, Ph.D.
Intuitive Research and Technology Corporation (INTUITIVE®)
Chanler Cantor
Intuitive Research and Technology Corporation (INTUITIVE®)

1505 – 1530 **Compound AI for Decision Advantage: Human Digital Twin Agent Teams and Populations for Military Operations**

Presenter: Svitlana Volkova, Ph.D.
Aptima, Inc.
Laura Cassani
Aptima, Inc.
Spencer Lynch
Aptima, Inc.

Hsien-Te Kao
Aptima, Inc.
Peter Bautista
Aptima, Inc.
Will Dupree, Ph.D.
Aptima, Inc.

1415 – 1530 **PAPER SESSION II: Training Through Immersive Simulation**
INDUSTRY/TRAINING & EDUCATION TRACK | MEETING ROOM: ENERGY

1415 – 1440 **Mobile eXtended Reality (XR) Training: Executing a Productive Training Effectiveness Evaluation**

Presenter: Betsy Guzmán Laxton
Design Interactive, LLC
Rebecca Kwasinski
Design Interactive, LLC

JoAnn Archer
Design Interactive, LLC

1440 – 1505 **From Game Art to Cognitive Training: How 3D Asset Design Impacts Situational Awareness in Simulation-Based Learning**

Presenter: Ashley Buczkowski
Old Dominion University
Jessica Johnson, Ph.D.
Old Dominion University

Bratislav Cvijetic
Old Dominion University

1505 – 1530 **Simulating Cybersecurity Resilience in Critical Infrastructure: A Role-Based Learning Game for Water Systems**

Presenter: Gul Ayaz
Old Dominion University
Katherine Smith, Ph.D.
Old Dominion University

Rafael Diaz, Ph.D.
Old Dominion University

Agenda

1415 – 1530 PAPER SESSION II: Modeling Wellbeing & Treatment

TRAINING & EDUCATION TRACK | MEETING ROOM: MOMENTUM

1415 – 1440 **Affective State Modeling to Predict Training Dropout in Soldier Academies**

Presenter: Ancuta Margondai
University of Central Florida

Mustapha Mouloua, Ph.D.
University of Central Florida

Cindy von Ahlefeldt
University of Central Florida

1440 – 1505 **BEST PAPER NOMINEE**

Engineering Mental Wellness: A Digital Twin for Chronic Stress Modeling and Real-Time Intervention

Presenter: Emma Antanavicius
University of Central Florida

Soraya Hani
University of Central Florida

Valentina Ezcurra
University of Central Florida

Anamaria Acevedo Diaz
University of Central Florida

Ancuta Margondai
University of Central Florida

Nikita Islam
University of Central Florida

Cindy Von Ahlefeldt
University of Central Florida

Mustapha Mouloua, Ph.D.
University of Central Florida

Sara Willox, Ph.D.
University of Central Florida

1505 – 1530 **Personalized EEG-Driven Digital Twin Models for AI and VR-Based Language Therapy in Children with Autism Spectrum Disorder**

Presenter: Nikita Islam
University of Central Florida

Valentina Ezcurra
University of Central Florida

Ancuta Margondai
University of Central Florida

Soraya Hani
University of Central Florida

Cindy Von Ahlefeldt
University of Central Florida

Anamaria Acevedo Diaz
University of Central Florida

Sara Willox, Ph.D.
University of Central Florida

Mustapha Mouloua, Ph.D.
University of Central Florida

Emma Antanavicius
University of Central Florida

1530 – 1545 **NETWORKING BREAK & DEDICATED EXHIBIT TIME**

GRANBY BALLROOM FOYER

1545 – 1715 **SPECIAL EVENT: Teaching A New Dog Old Tricks – Partnering with AI for Creating Training**

GRANBY BALLROOMS ABCD

This roundtable explores how GenAI and LLMs can be a partner in elevating how we in the training simulation community provide tools that ensure operational readiness. The Roundtable will include experts speaking distinctive approaches to leveraging AI for readiness, covering topics like:

- GenAI as Your Co-Creator – How GenAI can collaborate with training developers to design simulations faster and smarter
- Simulation: Impossible – Using GenAI to generate synthetic data for rare or high-risk training scenarios
- Getting Ready for Readiness – Leveraging predictive analytics to anticipate training needs, forecast learner performance, and proactively address skill gaps

MODERATOR

Benjamin Bell, Ph.D.

VP Advanced Capabilities, Potawatomi Business Development Corporation, Federal Group

Jamieson Gump, Ph.D.

Senior Technical Advisor for Modeling, Simulation and Analysis (EPA), Department of the Air Force (CMSO, AFRL & PEO C3BM)

James Pharmer, Ph.D.

Chief Scientist, Naval Air Warfare Center Training Systems Division



Agenda

1715 – 1830 **OPENING RECEPTION**
GRANBY BALLROOM FOYER

Welcome Remarks

Claire Hughes

2025 Conference Chair, Design Interactive, LLC

Reception Sponsor



WEDNESDAY, 20 AUGUST

0700 – 1500 **REGISTRATION OPEN**
GRANBY BALLROOM FOYER

0745 – 0900 **CONTINENTAL BREAKFAST**
GRANBY BALLROOM FOYER

0745 – 1500 **EXHIBIT HALL OPEN**
GRANBY BALLROOM FOYER

0900 – 0915 **DAY THREE WELCOME & OPENING REMARKS**
GRANBY BALLROOMS ABCD

Claire Hughes

2025 Conference Chair, Design Interactive, LLC

0915 – 1015 **SPECIAL EVENT: Future Visions in Medical Simulation**
GRANBY BALLROOMS ABCD

As healthcare and military medicine evolve, so must the training tools for future medical professionals. This session convenes a panel of experts from research, technology, military operations, and government to discuss the transformation of medical simulation, from traditional mannequins to immersive, AI-enhanced environments. Topics include the integration of virtual, augmented, and mixed reality in training, the use of haptics for procedural accuracy, and the role of human factors in system design. The panel will also explore challenges in scaling simulation across diverse settings, share insights from real-world deployments, and highlight the importance of interdisciplinary collaboration. Attendees will gain a strategic outlook on how emerging technologies, policy changes, and evolving threats are shaping the future of medical readiness and education.

MODERATOR

Frank Karluk

Account Executive, DLH Corporation

JoAnn Archer

Deputy Director RDT&E, Design Interactive, LLC

Cheryl Lockhart

Senior Military Advisor, SimX VR

Madison Quinn

Research Lead, Engineering & Computer Simulations, Inc.

CMSgt Adam Reading, USAF (Ret.)

Director of Simulation Sales, North American Rescue



Agenda

1015 – 1030 **NETWORKING BREAK & DEDICATED EXHIBIT TIME**
GRANBY BALLROOM FOYER

1030 – 1145 **PAPER SESSION III: AI-Driven Military Training**
DEFENSE TRACK | MEETING ROOM: FUSION

1030 – 1055 **Predicting Mission Outcomes with Warfighter Digital Twins and Artificial Intelligence**

Presenter: Todd Burnett
Booz Allen Hamilton

Maryrose Blank, Ph.D.
Booz Allen Hamilton

Presenter: Jake Mathey
Booz Allen Hamilton

James Brown, Ph.D.
Booz Allen Hamilton

1055 – 1120 **Headset-free Immersive Flight Simulators for Improved Training Throughout**

Presenter: Christopher Barsi
Brelon, Inc.

Vincent Gio Davis
Brelon, Inc.

Alok Mehta
Brelon, Inc.

Barmak Heshmat
Brelon, Inc.

1120 – 1145 **Adaptive Simulation-Based Training for Military Decision-Making: Leveraging IoT-Derived Cognitive and Emotional Feedback**

Presenter: Emma Antanavicius
University of Central Florida

Cindy Von Ahlefeldt
University of Central Florida

Presenter: Nikita Islam
University of Central Florida

Sara Willox, Ph.D.
University of Central Florida

Anamaria Acevedo Diaz
University of Central Florida

Soraya Hani
University of Central Florida

Valentina Ezcurra
University of Central Florida

Mustapha Mouloua, Ph.D.
University of Central Florida

Ancuta Margondai
University of Central Florida

1030 – 1145 **PAPER SESSION III: Operational Readiness & Simulation for Security**
INDUSTRY/DEFENSE TRACK | MEETING ROOM: ENERGY

1030 – 1055 **Forging the Future of M&S: The Integrated Digital Maturity Pathway (IDMP) and User Story Framework**

Presenter: Darryl Draper-Amason, Ph.D.
Old Dominion University

Thomas Irwin, Ph.D.

1055 – 1120 **Novel Architecture for Naval Cyber-Kinetic Training**

Presenter: Omar Hasan, Ph.D.
Dignitas Technologies

Jeremy Richarde
Dignitas Technologies

Derek Crane
Dignitas Technologies

1120 – 1145 **Contested Homeland Environment Simulation (CHES)**

Presenter: Keith Ladd, USA (Ret.)
Applied Training Solutions, LLC

Schawn Thropp
Applied Training Solutions, LLC

Joseph Nolan, USA (Ret.)
Applied Training Solutions, LLC



Agenda

1030 – 1145	PAPER SESSION III: Application of Immersive VR Environments for Training	
	TRAINING & EDUCATION TRACK MEETING ROOM: MOMENTUM	
1030 – 1055	Comparison Between 360-degree and Digital Immersive VR-based Training Environments for Cleanroom Safety and Fabrication Procedures	
	Presenter: Michael Kozhevnikov, Ph.D. Norfolk State University	Steve Adjetey Adjei Norfolk State University
	Jordan Junior Atta Nuako Norfolk State University	
1055 – 1120	Immersive Virtual Reality-based Training Environment to Perform the Photolithography Process	
	Presenter: Sandra Eddie Norfolk State University	Michael Kozhevnikov, Ph.D. Norfolk State University
	Dickson Afful Norfolk State University	
1120 – 1145	Comparing Flow, Enjoyment, and Stress Responses in Desktop and Immersive Virtual Reality Gaming Environments	
	Presenter: Maria Kozhevnikov, Ph.D. Harvard Medical School	Michael Kozhevnikov, Ph.D. Norfolk State University
	Angelica Mah National University of Singapore	
1030 – 1145	SPECIAL EVENT: STEM Event	
	GRANBY BALLROOM FOYER	
	The MODSIM STEM event provides a unique opportunity to contribute directly to the school experience of youth who are beginning to formulate their dreams for the future. During the MODSIM STEM event, local high school students will get the opportunity to see firsthand the world of M&S. Students will rotate through hands-on M&S demonstrations provided in the exhibit hall to see STEM in action.	
1145 – 1300	LUNCH & DEDICATED EXHIBIT TIME	
	GRANBY BALLROOM E & GRANBY BALLROOM FOYER	
1300 – 1415	PAPER SESSION IV: Space & Radar Simulation	
	DEFENSE TRACK MEETING ROOM: FUSION	
1300 – 1325	Electromagnetic Environment Simulation: Addressing Operational Training Gaps in Space	
	Presenter: Michael Buttram Information Systems Laboratories	Brendan Fisher Information Systems Laboratories
	Sandeep Gogineni, Ph.D. Information Systems Laboratories	
1325 – 1350	GPU-Accelerated Radar Simulation for Large-Scale Machine Learning Dataset Generation and Algorithm Development	
	Presenter: Srini Vasan Vulcan Ventura	Andrew Willis, Ph.D. Vulcan Ventura
	Presenter: Chris Beam Vulcan Ventura / Quantum Ventura, Inc.	Braden Feshami Quantum Ventura, Inc.
1350 – 1415	Advanced Analytics for Space-enabled Kill-webs (AASK)	
	Presenter: David Hillstrom, Ph.D. Infinity Labs, LLC	

Agenda

1300 – 1415 PAPER SESSION IV: Simulation & AI for Complex Decision Making

INDUSTRY TRACK | MEETING ROOM: ENERGY

1300 – 1325 **Tabu Search with Reinforcement Learning for Location Problems**

Presenter: Rex Kincaid, Ph.D.
William & Mary

Kuidong Li
William & Mary

Presenter: Lydia Wallis
William & Mary

1325 – 1350 **Combining Ink, Water, and Cardboard – Using AI Solutions and Curated Data Sets to Make Clear Solutions for Advanced Data Problem Sets in Magic: The Gathering and Beyond**

Presenter: Andrew Hollis
Emerging Technology Support, LLC

Samantha Sessions
Argano

Christopher Samulski
Argano

Luke Fallis
Argano

1350 – 1415 **BEST PAPER NOMINEE**

Simulation-Based Optimization of Synthetic Blood Production and Deployment in Emergency and Resource-Limited Clinical Settings

Presenter: Soraya Hani
University of Central Florida

Anamaria Acevedo Diaz
University of Central Florida

Ancuta Margondai
University of Central Florida

Emma Antanavicius
University of Central Florida

Cindy Von Ahlefeldt
University of Central Florida

Nikita Islam
University of Central Florida

Sara Willox, Ph.D.
University of Central Florida

Mustapha Mouloua, Ph.D.
University of Central Florida

Valentina Ezcurra
University of Central Florida

1300 – 1415 PAPER SESSION IV: AI & Adaptive Learning in Training Systems

TRAINING & EDUCATION TRACK | MEETING ROOM: MOMENTUM

1300 – 1325 **Cognitive Task Analysis in the Age of AI**

Presenter: Jessica Johnson, Ph.D.
Old Dominion University

1325 – 1350 **Optimizing Learning with AI: Individual and Organizational Benefits**

Presenter: Amy Smith, Ph.D.
Blank Slate Technologies

1350 – 1415 **Retrofitting Simulation Systems with Adaptive Learning to Personalize Training**

Presenter: Thomas Lenz
Dignitas Technologies

Michael Cambata
Dignitas Technologies

1415 – 1430 NETWORKING BREAK & DEDICATED EXHIBIT TIME GRANBY BALLROOM FOYER



Agenda

1430 – 1600

SPECIAL EVENT: Peering Over The Horizon – How Immersive, Spatial and AI Technologies Are on the Brink of Reshaping Industrial Production

GRANBY BALLROOMS ABCD

From drug development through agriculture and ship building, immersive, spatial and AI technologies are helping accelerate new discoveries and fundamentally changing the way companies are building, deploying, and marketing their products. This panel will explore how these technologies are used today, and the strategies teams are using to overcome the technological and institutional challenges that threaten adoption. The impact of technologies such as the next generation of wearable AR glasses, neurosymbolic AI and the use of digital twins will be discussed. Attendees will leave with a clear understanding of how these technologies are changing development at Fortune 50 companies and how these lessons can be leveraged at their own organizations.

MODERATOR

Claire Hughes

Portfolio Manager, Design Interactive, LLC

Chris Binion

Director of Digital Innovation, Thermo Fisher Scientific

Sean Danowski

CEO, MergePlot

Joseph Marr, Ph.D.

Lead Data Scientist, Newport News Shipbuilding

Chris Mulberry

Senior Solutions Architect, Industry Solutions, Unity Technologies

1600

CLOSING REMARKS & ADJOURN

GRANBY BALLROOMS ABCD

Claire Hughes

2025 Conference Chair, Design Interactive, LLC

Vance Souders

2026 Conference Chair, Thermo Fisher Scientific



2026 DEPARTMENT OF THE AIR FORCE

Modeling & Simulation Summit

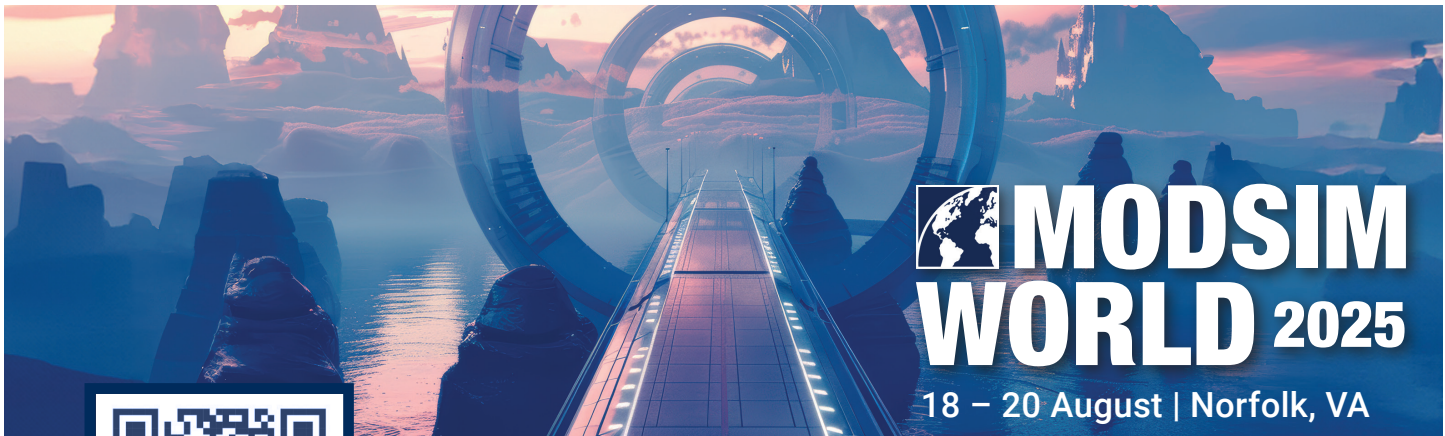
SAVE THE DATE

5 – 8 MAY 2026
COLORADO SPRINGS, CO
DAFMSS.org

HOSTED BY



About MODSIM World



Scan the QR code to follow us on our social media accounts.

Stay up to date on the latest and greatest from NTSA and all of our events!



MODSIM WORLD is a unique multi-disciplinary conference for the exchange of modeling and simulation knowledge, research, and technology. This event joins theory and practice across industry, government and academia; providing for an open interchange of information, knowledge and technology.

MODSIM WORLD began in 2007 with the creation of the Center for Public and Private Partnership (CP3), a non-profit corporation that drew membership from the M&S industry and community leaders in Hampton Roads, Virginia. In November 2014 the CP3 changed its name to Virginia Modeling and Simulation Partnership (VMSP), by vote of the Board of Directors. VMSP saw the interest and need to share information about the vast amount of M&S based development occurring in the Hampton Roads area, including work based at Joint Forces Hampton Roads, Virginia Modeling, Analysis and Simulation Center (VMASC), Eastern Virginia Medical School (EVMS), NASA Langley Research Center, and many other regional government, academic, and industry organizations. Now sponsored and managed by the National Training and Simulation Association (NTSA), MODSIM has been held annually since.

Specific focus areas of the conference vary from year to year, based upon current events and interest level. The 2025 conference tracks are Industry, Defense, and Training & Education.

MODSIM VISION

MODSIM World will become the premier international conference and exposition for collaboration and transfer of M&S knowledge, new research, development, and applied technology across all public and private sectors.

MODSIM MISSION

- To promote the initiation, development, and research of M&S among all organizations internationally.
- To share the latest technical expertise, knowledge, applications, and capabilities of simulation technology by academia, industry, and government.
- To promote cooperation among academia, industry, and government, applying M&S technologies to help organizations anticipate and prepare for the future.
- To improve M&S technology to reduce its implementation cost by academia, industry, and government.
- To support planning, decision-making, and real time operations management with state-of-the-art computer software and development expertise utilizing modeling and simulation.
- To foster the transfer of leading edge simulation technology and knowledge from the military community to the medical, transportation, homeland security, and other applicable communities.





ACCELERATE & INNOVATE

MONDAY, 18 AUGUST | 1315 – 1415



VADM Sean Buck, USN (Ret.)

President, NTSA
Moderator



Bob Kleinhample, USA (Ret.)

CEO & President, PioneerSim



Jay Pitman

Vice President and General Manager,
Training, Logistics and Simulation,
Lockheed Martin Rotary and Mission
Systems



Brian Vogt

M&S Section Head, Next Generation
M&S Programme Director, NATO HQ
SACT

WARGAMING AT THE CROSSROADS

MONDAY, 18 AUGUST | 1445 – 1615



Luke DeVore

Managing Partner, Voltron Group
Moderator



Sebastian Bae

Senior Game Designer and Research
Scientist, Center for Naval Analysis



Chad Bates, Ph.D.

Wargaming Solution Architect, BAE
Systems, Inc.



Stephen Nelson

Simulation Officer, U.S. Army Futures
and Concepts Center



Capt Nathan Tidwell, USMC

Modeling & Simulation Officer, Brute
Krukak Center of Innovation & Future
Warfare, Marine Corps University
(MCU)

THE SIMULATION CENTURY

TUESDAY, 19 AUGUST | 0930 – 1100



Richard Boyd

CEO, UltiSim, Inc.



Adam Leslie

Director, ASPI USA; President, Real
Spy Comics



Robin Lobb

Vice President, Membership,
International Association for
Intelligence Education (IAFIE)

TEACHING A NEW DOG OLD TRICKS

TUESDAY, 19 AUGUST | 1545 – 1715



Benjamin Bell, Ph.D.

VP Advanced Capabilities,
Potawatomi Business Development
Corporation, Federal Group
Moderator



Jamieson Gump, Ph.D.

Senior Technical Advisor for Modeling,
Simulation and Analysis (EPA),
Department of the Air Force (CMSO,
AFRL & PEO C3BM)



James Pharmer, Ph.D.

Chief Scientist, Naval Air Warfare
Center Training Systems Division

FUTURE VISIONS IN MEDICAL SIMULATION

WEDNESDAY, 20 AUGUST | 0915 – 1015



Frank Karluk

Account Executive, DLH Corporation
Moderator



JoAnn Archer

Deputy Director RDT&E, Design
Interactive, LLC



Cheryl Lockhart

Senior Military Advisor, SimX VR



Madison Quinn

Research Lead, Engineering &
Computer Simulations, Inc.



CMSgt Adam Reading, USAF (Ret.)

Director of Simulation Sales, North
American Rescue

PEERING OVER THE HORIZON

WEDNESDAY, 20 AUGUST | 1430 – 1600



Claire Hughes

Portfolio Manager, Design Interactive,
LLC
Moderator



Chris Binion

Director of Digital Innovation, Thermo
Fisher Scientific



Sean Danowski

CEO, MergePlot



Joseph Marr, Ph.D.

Lead Data Scientist, Newport News
Shipbuilding

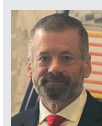


Chris Mulberry

Senior Solutions Architect, Industry
Solutions, Unity Technologies

TRACK CHAIRS

DEFENSE



Frank Karluk | Chair

Account Executive, DLH Corporation



Radhakishan “Kishan” Shetty | Deputy Chair

Principal Software Developer, Janus
Research

INDUSTRY



Matthew “Matt” Pittard | Chair

Systems Engineer, BAE Systems, Inc.



Andrew Hollis | Deputy Chair

Special Projects Lead, Emerging
Technology Support, LLC



Jodie Mangor | Deputy Chair

Director of Grants and Research,
SimX, Inc.

TRAINING & EDUCATION



Madison Quinn | Chair

Research Lead, Engineering &
Computer Simulations, Inc.



Kevin F. Hulme, Ph.D., CMSP | Deputy Chair

Program Manager, The Stephen
Still Institute for Sustainable
Transportation and Logistics



D'An Knowles Ball, Ph.D. | Deputy Chair

Research Associate, Design
Interactive, LLC

EcosySTEM of Learning

NTSA's EcosySTEM of Learning spans the lifecycle of learning. Opportunities abound for elementary and secondary students, college students, and the workforce to experience modeling and simulation through science, technology, engineering, and mathematics experiences. The four cornerstones of the program provide varying ways to engage with others in the modeling and simulation industry, through focused workshops, industry visits, and outreach encounters, the EcosSystem of Learning Pavilion and Discovery Den at I/ISTEC and career investment opportunities to include scholarship and career fairs. These events, occurring throughout the year, support learning at all levels, as well as professional development and workforce engagement.

Patient Safety Initiative

In 2020, NTSA launched an initiative to address the alarming statistics related to active and latent errors in healthcare which affect patient safety. Training through simulation has been shown to minimize errors and improve performance for healthcare workers in high stress environments. A working group was established and has been active since that time to delve deeper into ways that simulation can improve patient safety and thus lessen the number of errors in the patient care arena. This working group holds regular meetings and has established a campaign through the Modeling and Simulation Congressional Caucus to raise awareness of this issue, and establish legislation to support the application of modeling and simulation to this critical need. Legislation was passed in the last Congress, and the group continues to advance the initiative in the current Congressional budget cycles.

AI Working Group

As a result of the Modeling and Simulation Congressional Caucus Leadership Summit of 2025, NTSA launched a working group focused on Artificial Intelligence (AI). The modeling, simulation and training community has been integrating AI into the technologies that support national security, infrastructure, healthcare and education. It is critical that the application of AI supports rather than hinders national progress and security. Our Congressional representatives and our Caucus Members continue to seek the most appropriate application of legislation to encourage innovation while also establishing guardrails to protect our nation from the inappropriate use of AI and related technologies. This working group is focused on educating our lawmakers on these technologies, and on proposing the most effective ways that Congress can support the integration and application of these technologies. This group continues to provide white papers and educational opportunities on Capitol Hill to educate Members on proposed areas for legislative action.



National Training and Simulation Association

The National Training and Simulation Association (NTSA) is America's premier organization representing the interests of the modeling and simulation community worldwide. As such, it serves as a constant point of contact for government, academia, industry, research organizations and the military to exchange information, share knowledge, align business interests and in general stimulate growth and overall advancement of the industry. NTSA pursues these goals through a series of conference, meetings and exhibitions throughout the year. NTSA produces The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), which is the world's largest conference and exhibition dedicated to modeling and simulation. While NTSA primarily serves the North American community of practice, many of its members and participants are non-US. NTSA is a key member of the International Training and Simulation Alliance (ITSA), a worldwide group of simulation associations that promotes knowledge and information about training and simulation worldwide.

VADM Sean S. Buck, USN (Ret.)
President

Debbie Langelier, CEM
Senior Vice President

Reneé Despot
Director, Meetings & Operations

Shannon Burch, CEM
Senior Director, Exhibits & Sponsorships

Carol Dwyer, CMP
Manager, Registration & Certification

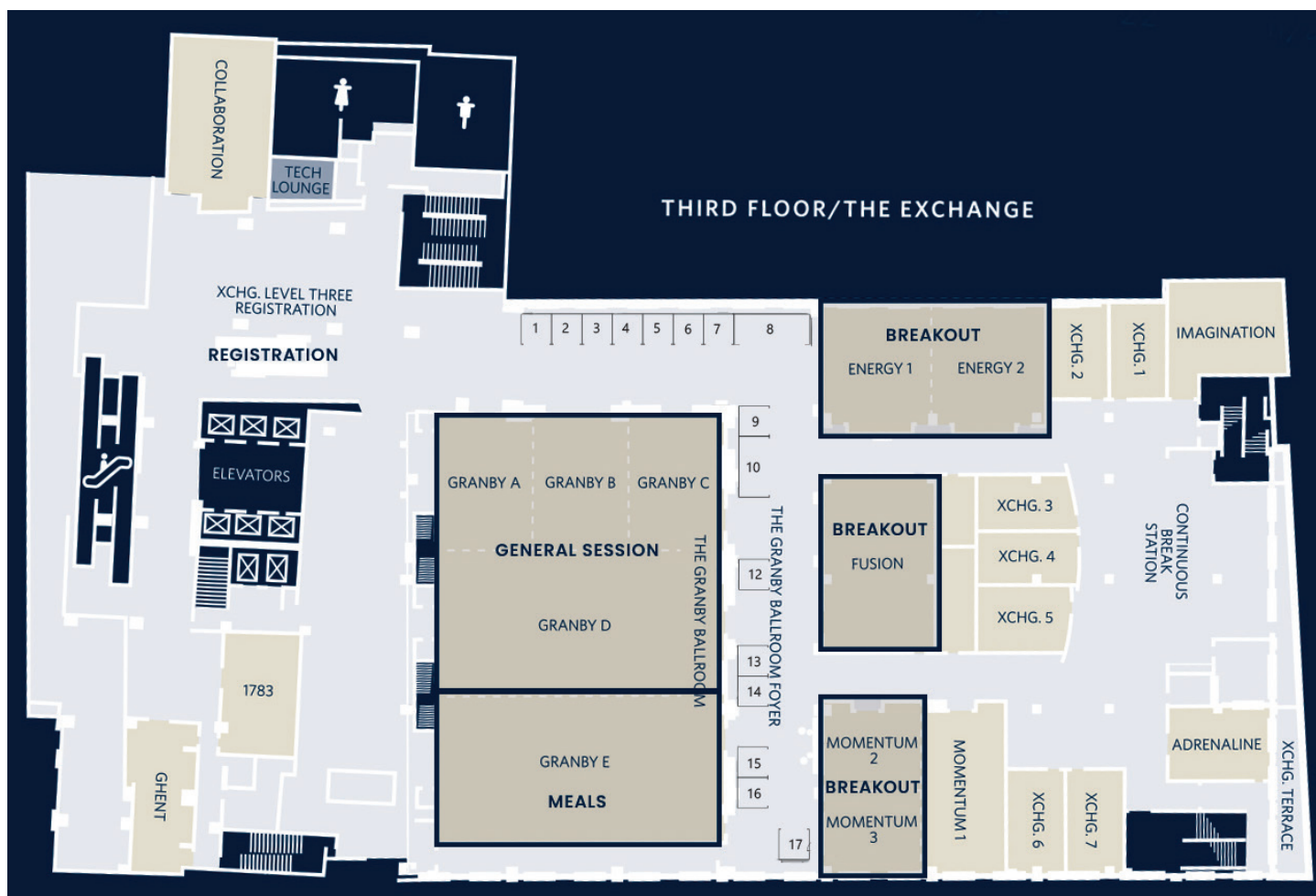
Erica Albright
Senior Manager, Membership

Caitlyn Langelier
Associate Director, Meetings & Operations

Tiffany Milnor
Manager, Exhibits & Operations



Venue & Exhibits Map



Exhibitors by Company

C2 Technologies, Inc.	3	Jacob Barhak Analytics.....	1
CESI/ByLight.....	4	Schemata, Inc.	7
Clear-Com	13	SimIS, Inc.	6
Davis Infrastructure.....	12	Space Cowboy	1
Design Interactive.....	9	Tech Wizards, Inc.	2
Dignitas Technologies	15	The City of Norfolk Economic Development.....	16
FTS International	14	Department	
HII	8	TreXII.....	5
ISI.....	17	VMASC.....	10

Exhibitor Descriptions

C2 Technologies, Inc.

NTSA CORPORATE MEMBER

C² Technologies delivers next-gen immersive training, AI-powered adaptive learning, MODSIM, cybersecurity, and digital transformation for defense, federal, and private sector clients. Our Adapt2Learn platform boosts performance and slashes development time and cost. With 500+ experts across 37 global locations, we support 150+ clients through major contracts and emerging tech. From combat readiness to enterprise transformation, C² empowers America's heroes to lead, adapt, and win. Headquartered in McLean, VA. Learn more: c2ti.com

CESI/ByLight

NTSA CORPORATE MEMBER

LANYARD SPONSOR

CESI/ByLight delivers modern solutions for complex training and education needs using modeling and simulation enabled products and services. Serving military, government, and educational markets, CESI develops, delivers, and sustains cutting edge modeling and simulation products like the US Army's Synthetic Training Environment (STE) and Next Generation Constructive (NGC) simulation.

Clear-Com

NTSA CORPORATE MEMBER

Clear-Com, an HME company, is a trusted global provider of professional real-time communications solutions and services since 1968, innovating market proven technologies that link people together through wired and wireless systems. Clear-Com was first to market portable wired intercom systems for live performances. Since then, our history of technological advancements and innovations has delivered significant improvements to the way people collaborate in professional settings where real-time communication matters. For the markets we serve -- broadcast, live performance, live events, sports, military, aerospace and government-- our communication products have consistently met the demands for high quality audio, reliability, scalability and low latency, while addressing communication requirements of varying size and complexity. Our reputation in the industry is not only based on our product achievements, but also on our consistent level of customer engagement and dedication to delivering the right solutions for specialized applications, with the expertise to make it work.

Davis Infrastructure

Davis Infrastructure is the leading manufacturer's representative for mission-critical power distribution equipment and data center infrastructure.

As a 100% SBA-Certified Veteran-Owned Small Business, we are proud to support federal agencies and meet the needs of government customers.

3

Design Interactive

NTSA CORPORATE MEMBER

For over 25 years, Design Interactive's team of Human Factors experts have helped both Government and Commercial organizations "Accelerate Digital Transformation" by evaluating, developing, and safely integrating advanced computing and software solutions that optimize both the human and the system. Website – <http://www.designinteractive.net>

Dignitas Technologies

NTSA CORPORATE MEMBER

Dignitas Technologies, LLC is a woman-owned small business founded in 2004 and headquartered in Orlando, FL. Dignitas provides outstanding support to U.S. military training and modernization efforts across all Department of Defense (DoD) organizations. We provide full lifecycle support of military training to include systems and software engineering, integration, event support, instructional design services, training and learning objective analysis, adaptive training development, interactive simulation development, eLearning and courseware development, modeling, and 2D/3D graphic design. We conduct training development on a wide array of training modalities from computer-based, instructor led, training and education to live, virtual, and constructive (LVC) modeling and simulation (M&S).

FTS International

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FTS International is an elite engineering firm of over 300 cleared experts. Since 2005, we have consistently delivered mission-critical support for the build and operations of every NRO collector. FTS plays a key role in the dynamic analysis of current and future Multi-INT architectures through our proprietary tool suite, Olympus, which has been developed in-house to deliver proven, effective results.

HII

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Newport News Shipbuilding (NNS), a division of HII, is proud to design, build and maintain nuclear-powered aircraft carriers and submarines and provide fleet services for the U.S. Navy. Headquartered in Newport News, Virginia, the shipyard's vast facilities span more than 550 acres along two miles of waterfront on the historic James River. It is the largest industrial employer in Virginia, employing more than 26,000 people, many of whom are third- and fourth-generation shipbuilders. For more information, please visit www.hii.com.

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Exhibitor Descriptions

ISI

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ISI delivers integrated compliance, cybersecurity, and IT solutions purpose-built for SMBs in the Defense Industrial Base. With expert-led CMMC support, outsourced AFSO services, and Security Control software, ISI helps defense contractors stay secure, audit-ready, and contract-eligible—eliminating complexity with a single, accountable partner for compliance, security, and operational readiness.

Jacob Barhak Analytics

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Jacob Barhak is a sole proprietor and an independent Computational Disease Modeler focusing on machine comprehension of clinical data. He contracts with multiple companies on projects that include Artificial Intelligence, Data Science, and software development. Jacob Barhak holds patents in the field of healthcare modeling. The Reference Model for disease progression is patented technology that was self developed by Dr. Barhak. The Reference model is the most validated Diabetes model known worldwide and also the first COVID-19 multi-scale ensemble model. His efforts also include standardizing clinical data through ClinicalUnitMapping.com. Dr. Barhak has a diverse international background in engineering and computing science. He is active within the python community and organizes the Austin Evening of Python Coding meetup. For additional information please visit <https://sites.google.com/view/jacob-barhak/home>

Schemata, Inc.

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Schemata rapidly builds photorealistic 3D assets paired with an AI instructor, enabling our DoD and commercial clients to modernize work instructions, operating manuals, courseware, and other ineffective training. Our AI-native pipeline can capture, render, and segment 3D assets at 10% of the time and cost of traditional virtual content creation methods.

SimIS, Inc.

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Founded in 2007, Suffolk-based SimIS Inc. is a four-time Hampton Roads Small Business of the Year recipient. We deliver advanced software development, enterprise cybersecurity, network engineering, autonomous systems, M&S, T&E, data management, and cloud services. Our R&D Laboratory partnerships with ODU and VMASC drive innovative digital integration. Proven engineering expertise and past performance solve critical DoD and federal challenges.

Space Cowboy

1

Austin-based startup Space Cowboy ADR is tackling the threat of orbital debris in Lower Earth Orbit. Founded by US Army veteran Joe Guzman, the company is developing a fleet of micro-satellites to capture and de-orbit hazardous debris. Prioritizing a circular space economy, their primary business model focuses on capturing valuable data to characterize the debris environment. A secondary revenue stream will come from providing active debris

removal services to commercial and government clients. The company is backed by Capital Factory and has completed a US Space Force feasibility study.

Tech Wizards, Inc.

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Tech Wizards, Inc. (TWI) is a small business founded in 2005 based in Dahlgren, VA. We provide advanced systems, software, Artificial Intelligence (AI) solutions, and cybersecurity services to government and commercial clients. Our team delivers full-system and software life cycle support using modern, scalable, and maintainable methodologies.

TWI is best known for its Virtual Maintenance Trainers (VMTs) – immersive 3D digital twins of tactical training equipment that improve proficiency and reduce costs. Now integrated with our AI Machine Learning (ML) algorithm Learning Optimization through Knowledge Insights (LOKI), student performance is tracked and analyzed to enhance training outcomes and maximize combat lethality.

The City of Norfolk Economic Development Department

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The City of Norfolk Economic Development Department is a trusted partner dedicated to fostering sustainable and equitable opportunities for all. By attracting businesses, supporting local businesses and entrepreneurs, and enhancing existing real estate, we drive inclusive economic growth and create jobs, enhancing Norfolk's prosperity and diverse workforce. Industry, innovation, life. Fueling Norfolk.

TreXII

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TReXII offers federally funded research and business opportunities for large and small companies and academia, especially small and emerging companies that have not traditionally worked with the Government in the past. TReX II members focus on identifying, developing, and testing modeling, simulation, and training capabilities at the speed of innovation.

VMASC

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OPENING RECEPTION & STEM SPONSOR

The Virginia Modeling, Analysis, & Simulation Center, established in 1997, is Old Dominion University's longstanding center of excellence in modeling, simulation, and analysis. Operating under the Office of Enterprise Research and Innovation (OERI) and with a staff of over two dozen research faculty and project scientists, VMASC is focused on advancing the field of modeling and simulation by providing research on spanning topics from social issues like humanitarian and disaster response to AI-aided modeling, internet archives, and science of team science.

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