



SSI Conference 2019

Lisbon, Portugal - Sep. 30 to Oct. 2

**SHIPBUILDING
EXCELLENCE**

Organizers



Welcome to the SSI Conference 2019!

This year we renew with holding a plenary Conference on European soil, open as always to all who bear interest in the world of ShipConstructor and related fields. Alternating with the biannual SSI Conference held in North America, hosting a Conference in Europe allows extending the program's scope to include the somewhat different requirements and cater to the specificities of all our prospects and customers, worldwide. Geographical and cultural differences exist and, while the SSI product range effortlessly bridges them, dedicated presentations and discussions are in order. In fact, to attend both Conferences provides the comprehensive overview so useful in breaking off from legacy and exploiting the SSI product range optimally.

Loosely stated, the SSI Conference 2019 theme is to *enhance productivity and increase ROI*, topics dear to all. And, perhaps just as unclear to many, to achieve these goals is far easier than most will surmise. After 35+ years in this industry and in this business we continue to witness on a daily basis a litany of missed opportunities. The culprit, more often than not, is the under-use of existing tools brought about by the *don't have time to improve* syndrome, easily rephrased as *i am so busy putting out fires that i cannot take the time to stop starting new ones*. Hence the theme of the Conference.

Moreover, we are all witness to and sometimes self-imposed victims of change but, even more so, too often spectators of technological evolution. Then, a competitor who progresses even in just one area will easily take the lead.

SSI coined the Synchronised Shipyard label and first presented it at ICCAS 2015, on which occasion the *definition-based model* was also introduced. LEAN and AGILE were already part of SSI's DNA by then, following the birth of the EnterprisePlatform in 2011. All in all, the industry was presented with a disruptive shift in the explanatory paradigm which, perhaps unfortunately for the industry, remains such to this day. It is thanks to those *firsts* that today the ShipConstructor world is so easily connected to the other cogs and wheels in the ship design and building mechanisms, regardless of their complexity and scope. Several fellow major players in the industry have synchronised with SSI and, as always, some have elected to sponsor and to present at this year's Conference.

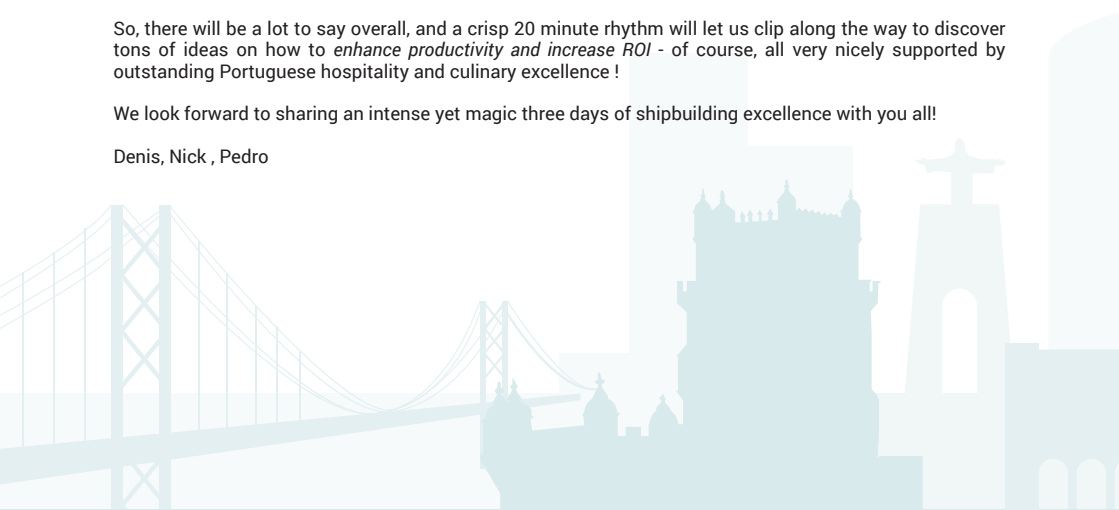
Back to ShipConstructor, a number of sessions are dedicated to making better and more use of what is there already, a *tongue-in-cheek* reference to the presentation that will have been delivered at ICCAS 2019 on September 25th, when Nick will speak about Denis' paper on the Platform of Platforms concept applied to Digital Twins. In Lisbon, special attention will be paid to the EnterprisePlatform and its several remarkable applications to Business intelligence, Deliverable Archives, integration with ERP and PLM, etc.

Last but not least, SSI's pioneering work and a symbiotic partnership with ARAS, Canada, have spawned the SSI Shipbuilding PLM, the only *out-of-the-box*, shipbuilding specific PLM system available today for our industry.

So, there will be a lot to say overall, and a crisp 20 minute rhythm will let us clip along the way to discover tons of ideas on how to *enhance productivity and increase ROI* - of course, all very nicely supported by outstanding Portuguese hospitality and culinary excellence !

We look forward to sharing an intense yet magic three days of shipbuilding excellence with you all!

Denis, Nick , Pedro



PROGRAM

Day 1 - Monday, September 30th

- 11:30 - 13:45 **Registration**
- 13:45 - 14:00 **Welcome**
Denis Morais, SSI - Pedro Antunes, Vera Navis - Nick Danese, NDAR
- 14:00 - 14:20 **Latest & Greatest**
Nick Danese, NDAR
- 14:20 - 14:40 **Hull Effectivity & Change Management**
Jagan Seshadri, SSI
- 14:40 - 15:00 **Project Insights, CIP and other "Project Management" tools**
Norman Eldridge, SSI
- 15:00 - 15:20 **ShipConstructor Resources & Help**
Nick Danese, NDAR
- 15:20 - 15:40 **The Subscription Advantage Pack**
Filipa Sanches, Vera Navis
- 15:40 - 16:00 **Project Insights, Power BI & the usage of PartData**
Lambertus Oosterveen, Royal Huisman - Guest Speaker

Sponsored Coffee Break - AutoFEM Software



- 16:20 - 16:40 **Robotics: Car-W, from ShipConstructor model to 9-axis welding**
Nick Danese, NDAR
- 16:40 - 17:00 **NEXUS & SSI Learning**
Norman Eldridge, SSI
- 17:00 - 17:20 **Ship Buoyancy and Ship Hydrostatics Calculation with AutoFEM Analysis and ShipConstructor**
Alexander Sushchikh, AutoFEM Software - Sponsor Presentation
- 17:20 - 17:40 **EnterprisePlatform**
Jagan Seshadri, SSI
- 17:40 - 18:00 **The Weld Module**
Pedro Antunes, Vera Navis
- 18:00 - 18:20 **Questions & Answers**
- 18:20 - 18:40 **Round Table**
- 18:40 - 19:00 **Closing Remarks**
Nick Danese, NDAR

PROGRAM

Day 2 - Tuesday, October 1st

- 08:55 - 09:00 **Welcome - Today's Program**
- 09:00 - 09:20 **ExpressMarine: a ShipConstructor Pre-Processor**
Stéphane Dardel, NDAR
- 09:20 - 09:40 **Rhino 6 Advanced & Grasshopper Present-emo**
Carlos Pérez, McNeel Europe - Sponsor Presentation
- 09:40 - 10:00 **Project Insights Overview**
Lambertus Oosterveen, Royal Huisman - Guest Speaker
- 10:00 - 10:20 **Ship Explorer**
Norman Eldridge, SSI
- 10:20 - 10:40 **ShipConstructor to ShipWeight**
Runar Aasen, BAS Engineering - Sponsor Presentation

Sponsored Coffee Break - PROSTEP



- 11:00 - 11:20 **Distributive work management strategies**
Pedro Antunes, Vera Navis
- 11:20 - 11:40 **Simulation of Lift and Transporting Operations of Ship Units with AutoFEM and ShipConstructor**
Alexander Sushchikh, AutoFEM Software - Sponsor Presentation
- 11:40 - 12:00 **EnterprisePlatform Operations Overview: What is There**
Nick Danese, NDAR
- 12:00 - 12:20 **MarineDrafting at Royal Huisman: distributing up to date 2D information across the Shipyard through PublisherLT**
João M.A.C. Estevens Silva, Royal Huisman - Guest Speaker
- 12:20 - 12:40 **SSI Innovation and R&D**
Norman Eldridge, SSI
- 12:40 - 13:00 **Integrated Skills – Linking Academy with Industry**
Carlos Maio, QSR - Sponsor Presentation

Sponsored Lunch - AutoFEM Software



PROGRAM

Day 2 - Tuesday, October 1st

- 14:00 - 14:20 **SSI: SSI Open Shipbuilding Platform**
Denis Morais, SSI
- 14:20 - 14:40 **Shared & Collaborative Environment (1)**
Nick Danese, NDAR
- 14:40 - 15:00 **Smart Production – Data Centric Fabrication for Shipyards**
Marcel Veldhuizen, Nestix - Sponsor Presentation
- 15:00 - 15:20 **OpenPDM SHIP – Integration Platform to connect ShipConstructor and Standard PDM Systems**
Matthias Grau, PROSTEP - Sponsor Presentation
- 15:20 - 15:40 **ExpressMarine to ShipConstructor**
Runar Aasen, BAS Engineering - Sponsor Presentation
- 15:40 - 16:00 **ShipConstructor Unlimited: Detail Design & Production Engineering in Building Buildings**
Lars Albinsson, Maestro / Stefan Wertheimer, Sizes / Nick Danese, NDAR

Sponsored Coffee Break - QSR



Talent driven culture.

- 16:20 - 16:40 **OpenPDM SHIP – CAD Conversion and Integration for the Marine Industry**
Matthias Grau, PROSTEP - Sponsor Presentation
- 16:40 - 16:55 **Cost Management in Shipbuilding: Utilization of Technical Data for Cost Estimation**
Jan Fischer, CostFact - Sponsor Presentation
- 16:55 - 17:25 **Autodesk solutions for radical collaboration with ShipConstructor and beyond**
Jose Ariza, Autodesk - Sponsor Presentation
- 17:25 - 17:45 **iNotifika EP**
Julian Smith, iYaldi - Sponsor Presentation
- 17:45 - 18:05 **Road Map – Future and Wishlist**
Norman Eldridge, SSI
- 18:05 - 18:20 **Shared & Collaborative environment 2**
Nick Danese, NDAR
- 18:20 - 18:35 **Questions & Answers**
- 18:35 - 18:55 **Round Table**
- 18:55 - 19:00 **Closing Remarks**
Nick Danese, NDAR
- 19:00 **Shuttle to Dinner**
- 19:15 **Surprise Social Event - Awards**

PROGRAM

Day 3 - Wednesday, October 2nd

- 08:55 - 09:00 **Welcome - Today's Program**
- 09:00 - 09:20 **CompoSIDE – Game Changing Software for Composite Marine Engineers**
Tom Matthews and Jonathan Evans, STRUCTeam - Guest Speaker
- 09:20 - 09:40 **DigitalHub – The Shipbuilding Information Platform**
Jagan Seshadri, SSI
- 09:40 - 10:00 **EnterprisePlatform: the Deliverables Machine**
Nick Danese, NDAR
- 10:00 - 10:20 **Integration Roadmap and Status between SSI and Smart Production**
Marcel Veldhuizen, Nestix - Sponsor Presentation
- 10:20 - 10:40 **Autodesk Forge – Insights – Automation – Data**
Supporting digital business transformation
Peter Schlipf, Autodesk - Sponsor Presentation

Sponsored Coffee Break - BAS Engineering



ShipWeight™

EXPRESSMARINE

- 11:00 - 11:20 **DigitalHub in Action**
Jagan Seshadri, SSI
- 11:20 - 11:40 **Creative use of Marine Drafting**
Filipa Sanches, Vera Navis
- 11:40 - 12:00 **Rhino 7 Sneak Preview**
Carlos Pérez, McNeel - Sponsor Presentation
- 12:00 - 12:20 **ShipConstructor, a game changer**
Pedro Antunes, Vera Navis
- 12:20 - 12:40 **ShipWeight**
Runar Aasen, BAS Engineering - Sponsor Presentation
- 12:40 - 13:00 **Zero Emission Double Ended design**
Luís Batista, Vera Navis

Sponsored Lunch - Nestix Oy, Hexagon PPM



HEXAGON

PROGRAM

Day 3 - Wednesday, October 2nd

- 14:00 - 14:20 **Smartshape**
Jean-Marc Le Roux, Aerys - Sponsor Presentation
- 14:20 - 14:40 **Ship Structural Assessment for Increasing Operation Conditions in Harsh Environments**
Tiago Fernandes, Vera Navis
- 14:40 - 15:00 **Naval projects with computational simulation: Applications with ANSYS**
Nuno Silva, ESSS - Guest Speaker
- 15:00 - 15:20 **Técnico Solar Boat**
Dinis Rodrigues, TSB - Guest Speaker
- 15:20 - 15:30 **Closing Remarks**
Nick Danese, NDAR
- 15:30 - 18:00 **Meet the Expert One to One**
by appointment
- 18:00 **End of the Event**



SPONSOR & SPEAKER PROFILES



With Autodesk software, you have the power to Make Anything. The future of making is here, bringing with it radical changes in the way things are designed, made, and used. It's disrupting every industry: architecture, engineering, and construction; manufacturing; and media and entertainment. With the right knowledge and tools, this disruption is your opportunity. Our software is used by everyone - from design professionals, engineers and architects to digital artists, students and hobbyists. We constantly explore new ways to integrate all dimensions of diversity across our employees, customers, partners, and communities. Our ultimate goal is to expand opportunities for anyone to imagine, design, and make a better world.



Jose Ariza

Technical Sales Specialist AEC at Autodesk

Jose Ariza joined Autodesk in 2017. He works as a Technical Sales Specialist for EMEA focusing on Autodesk's building and construction portfolio. Before joining Autodesk, Jose had worked as a BIM consultant freelancer and also as a BIM Manager for a Spanish Autodesk Partner. As a result, for more than 8 years so far Jose has helped the main companies in the AEC sector during the BIM implementation process and in the development of both national and international interdisciplinary projects using Autodesk technology. Moreover, he has collaborated with the University of Córdoba Spain as Associate Professor. Born in Córdoba, Jose holds a BSc in Technical Industrial Engineering and a MD in Architectural and Engineering Layout Techniques and Design Methods from the University of Córdoba.

Presentation

Autodesk solutions for radical collaboration with ShipConstructor and beyond.

The AEC Collection and BIM 360 bring integrated BIM and CAD workflows for design, engineering and construction which extend workflows with ShipConstructor. We will review the top tools to improve productivity and collaboration, so you can deliver more with less.

BIM 360 bring the project information from the office to the field and provides transparency to project stakeholders making everyone more accountable, including Document management, model coordination and field management. BIM 360 is a cloud-based solution which allows project stakeholders to access to the right information at the right moment everywhere.

Day 2 - 16:55 - 17:25



Peter Schlipf

Developer Partner Manager at Autodesk

Peter Schlipf joined Autodesk in 2001. Having worked in different sales roles he dedicated his time and efforts since 2012 to developer the Forge Partner and Customer relationships. In his role as the EMEA Forge Partner Development manager Peter focus on the business and strategic discussions.

Before joining Autodesk Peter had worked in the different industries like Industrial Design, measurement equipment and e-commerce business.

Peter studied Economy at LMU München (Dipl.Kfm BWL).

In his spare time he will be sailing and travelling.

Presentation

**Autodesk Forge – Insights – Automation – Data
Supporting digital business transformation**

The Forge Platform makes Design and Engineering data accessible to almost anyone, anytime, anywhere. With simple, standards-based web development, Forge helps developers and companies address tough challenges with cloud solutions. And Forge is more than just cloud-based tools – it's an innovation community.

Automating workflows and processes Autodesk Forge increases productivity, reduces errors, and saves costs. In this class Peter will present some examples of what can be done with Forge and the web-services API's to increase productivity on your path to digital transformation of your business.

Day 3 - 10:20 - 10:40

SPONSOR & SPEAKER PROFILES



AutoFEM Software LLP (headquartered in London, United Kingdom) was established in 2011. The company develops and markets the FEA software integrated with popular CAD systems. The developers of the company have vast experience in developing FEA applications for corporate MCAD systems. AutoFEM Analysis is the main product of the company available worldwide. For more information visit <https://autofem.com>



Alexander Sushchikh
Director at AutoFEM Software LLP

Alexander Sushchikh, is the Founder and Director of AutoFEM Software LLP. He is a Doctor of Philosophy in the field of calculation methods, and has more than twenty years' experience in finite element simulation and corresponding software development. His company develops and markets a package of the finite element analysis software (AutoFEM Analysis) that is integrated with AutoCAD (Autodesk, Inc.) and ShipConstructor (SSI, Inc.).

Presentations

Ship Buoyancy and Ship Hydrostatics Calculation with AutoFEM Analysis and ShipConstructor

New AutoFEM modules devoted to specific calculations being used in shipbuilding are presented at the first time. The module "Ship Buoyancy & Stability" provides the calculation of a vessel state in calm water and allows to find a corresponding hydrostatic pressure and obtain a ship stability diagram as well. These data can be then used as input for "Ship Hydrostatics" and therefore a strength analysis of a floating ship is available. All advantages of AutoFEM & ShipConstructor integration are remain and can be used by ShipConstructor's users.

Day 1 - 17:00 - 17:20

Simulation of Lift and Transporting Operations of Ship Units with AutoFEM and ShipConstructor

The demonstration of joint work of AutoFEM Analysis and ShipConstructor software is considered in the presentation. Static and dynamic analysis are available and allow anyone to carry out as simple static strength analysis of a certain ship structure and as well more complicated cases if necessary.

3D model and other data (such as materials) are directly retrieved from the ShipConstructor database.

All calculations are carried out straightly inside the AutoCAD & ShipConstructor environment providing easy access to FEA simulation for all ShipConstructor users.

Day 2 - 11:20 - 11:40

SPONSOR & SPEAKER PROFILES

BAS Engineering



ShipWeight™



EXPRESSMARINE

Since the start in 1996, BAS Engineering has been developing and supporting the ShipWeight software, as well as providing specialized technical services in the fields of mass properties engineering and software programming to the ship and oil offshore industry. The last years, the Rhino Plugin ExpressMarine has been added to the product portfolio. The company is located in Ålesund, Norway, right in the middle of the Norwegian Maritime Cluster. Throughout the years in operation, BAS Engineering has served oil companies, construction yards, shipyards, ship designers, navies, and engineering companies, both locally and around the world.



Runar Aasen

Co-founder and Manager at BAS Engineering AS

Runar Aasen is the co-founder and manager of BAS Engineering, the company behind ShipWeight and ExpressMarine software. Since his master's degree in Naval Architecture, Runar has worked for more than 20 years in the mass properties engineering and software business. He is a Fellow of the Society of Allied Weight Engineers (SAWE), and has authored and co-authored several technical papers on the subject of weight engineering for the ship and offshore industry.

In his spare time, he will be sailing and traveling.

Presentations

ShipConstructor to ShipWeight

ShipConstructor provides a source of weight, CG and other data throughout the model's lifetime, complementing other data from the various sources that feed ShipWeight's weight model. This presentation will show how to import weight data exported from ShipConstructor into ShipWeight in a quick and "intelligent" way. The import will automatically perform updates of existing data, including update of deleted parts. Assembly and "like" items information is used to get a more readable report after import.

Day 2 - 10:20 - 10:40

ExpressMarine to ShipConstructor

ShipConstructor provides a source of weight, CG and other data throughout the model's lifetime, complementing other data from the various sources that feed ShipWeight's weight model. This presentation will show how to import weight data exported from ShipConstructor into ShipWeight in a quick and "intelligent" way. The import will automatically perform updates of existing data, including update of deleted parts. Assembly and "like" items information is used to get a more readable report after import.

Day 2 - 15:20 - 15:40

ShipWeight

The presentation will an overview of the state-of-the-art weight engineering tool ShipWeight, showing its capabilities and features and lay out a use case of the tool from a project's early stage to delivery and beyond.

Day 3 - 12:20 - 12:40

SPONSOR & SPEAKER PROFILES



COSTFACT GmbH is the exclusive provider of the shipbuilding-tailored cost management system “CostFact”. This software system supports cost management throughout all shipbuilding phases, beginning with design and engineering. Typical CostFact users are medium-sized and big shipyards, engaged in the building of naval ships, commercial vessels and superyachts. Among the clients are some of the most renowned shipbuilders like Oceanco, ThyssenKrupp Marine Systems, Azimut, Nobiskrug, German Naval Yards and Blohm+Voss. Collaborations with Technical University Delft and Technical University Berlin (Department for Design and Operation of Maritime Systems) guarantee the integration of state-of-the-art methodology.



Jan O. Fischer

Co-founder and Manager at CostFact, GmbH

Jan O. Fischer is Director of COSTFACT GmbH. The same-named software system is specializing in the maritime sector and combines several advanced cost management methods. Besides his engagement in the deployment of CostFact, Jan is strongly involved in software implementation. That means that he is in permanent and close contact with clients and users. Before founding COSTFACT in 2008, Jan worked for seven years as consultant in the area of cost efficient design and carried out various projects that focused on the interfaces between technical and economic issues.

Presentation

Cost Management in Shipbuilding:

Utilization of Technical Data for Cost Estimation

Cost Management starts with the proposal and bidding process. The “CostFact” software system supports cost management throughout all shipbuilding stages including the early phases of design, engineering, calculations that accompany production, and finally to the analysis of a completed project. The benefits of CostFact include improved efficiency, speed and error avoidance in cost planning, analysis and optimization through the project lifecycle, generating reliable quotes, and consistency throughout the proposal and calculation process to ensure transparency and comprehension. By linking the CAD-system “ShipConstructor” and CostFact, initial project cost estimations are based on existing as-is ShipConstructor design models. This is used as a basis for adapting to changes and modifications in the project to capture cost deviations early. Further, the change processes in shipbuilding are streamlined significantly, providing consistent information flow between technical and financial departments.

Day 2 - 16:40 - 16:55

SPONSOR & SPEAKER PROFILES



Engineering Simulation and Scientific Software (ESSS), ANSYS representative in Portugal, offers the market the most advanced Computer-Aided Engineering (CAE) tools in the field of fluid dynamics, structural analysis, electromagnetism and multiphysics, in addition to customizing and development of software, tailored to the needs of each client. The solutions provided by the company play a key role in the projects of the world's most innovative companies, to deliver radically better and more efficient products to its more than 800 customers in various industry segments.



Nuno Silva
CAE Application Specialist at ESSS

Nuno Silva – “Mechanical Engineering Degree in IPL – ESTG in the field of molds and Masters at Instituto Superior Técnico (IST) in the field of manufacturing processes. Currently working at ESSS as CAE Application Specialist in structural simulation, providing training and technical support for ANSYS Products”.

Presentation

Naval projects with computational simulation: Applications with ANSYS

ESSS is an ANSYS Elite Channel Partner, meaning we provide top Quality Services and Support to our Clients.

ANSYS software enables you to solve complex structural engineering problems and make better, faster design decisions.

Designing ships is a demanding process, as vessels are among the most massive and mechanically complex moving structures in the world. Ships must operate reliably in harsh environments and meet stringent standards. Engineering demands are particularly challenging in designing work vessels for harbor and open-water applications, such as hoisting, dredging, construction, pipelaying and other marine operations. The hull and internal structural members must be seaworthy and stable. In addition, topside mechanical assemblies, such as cranes, must provide sufficient strength and reliability to work efficiently even while waves excite the ship.

In this presentation, Naval simulation applications using ANSYS will be shown, comprising Fluid-dynamics, Structural Analysis and Electromagnetism.

Day 3 - 14:40 - 15:00

SPONSOR & SPEAKER PROFILES



HEXAGON

NESTIX is a unique integrated production management system for part fabrication and welding assembly, including work preparation and part nesting functions. NESTIX SSC is targeted for steel service centers, NESTIX ME for mechanical engineering and NESTIX SHIP for shipyards, offshore yards and pipe fabrication. NESTIX supports all the major material splitting production processes like cutting, sawing and slitting, and also welding assembly and other processes to produce parts and assemblies from plate, profile and pipe material.

Over 30 years of experience ensure NESTIX deep understanding of the realities in prefabrication processes, and enable the creation of a unique, effective production control system for the customers.

NESTIX has almost 500 customers in 40 countries, and more than 8,000 professionals use NESTIX products daily. Since May 2016, NESTIX Ltd. became subsidiary to Intergraph Power, Process & Marine (PPM), part of Hexagon (Nasdaq Stockholm: HEXA B).

Marcel Veldhuizen

Vice President Fabrication Solution at Hexagon PPM



Marcel Veldhuizen graduated in 1990 as an engineer in business and computer science from the polytechnic university of Heerlen. He also holds a degree in Naval Architecture which he earned during his work at a renowned Dutch shipyard: Damen (formerly known as Royal Schelde). Since 1997 he works for Hexagon PPM (formerly known as Intergraph) where he has worked throughout the company in several Marine related positions. He was responsible as Global Business Development Manager for the Marine Industry, The Netherlands, where he has grown the marine business within Intergraph PPM from almost none existing into a multi-million revenue stream. During that time (and still) He has extensively worked and travelled across the globe allowing him to gather a unique perspective of alignment between different departments.

With the acquisition of Nestix Oy, which provides Industry 4.0 – Manufacturing Execution Solutions, to Steel Service Centers, Construction business as well as Shipyards for steel and piping around the globe, by Hexagon in midst of 2016 He is responsible as managing director for NESTIX Oy in Finland for the daily operations.

He is currently working as Vice President Fabrication Solution within Hexagon PPM, and in this position responsible for the development and execution of the overall Fabrication Solution strategy, which includes:

- Setup of worldwide sales channels (internally as well as externally)
- Developed a product solution instead of services implementations
- Implemented Agile Development with a Single Platform for Spoolgen, Smart Isometrics, Smart Production powered by NESTIX, INCOP, Smart Weld Quality Management Solution) globally.
- Implementing a CRM solution as well as worldwide support capabilities.

Presentations

Smart Production – Data Centric Fabrication for Shipyards

During this presentation Marcel Veldhuizen, Managing Director of NESTIX Oy, will provide an overview of the business benefits that a Data Centric Manufacturing Execution Solution can be achieved within a the shipyards. Utilizing engineering data from a production perspective will allow departmental as well as project optimization strategies that were not possible earlier, through the access of real time shop floor information.

Day 2 - 14:40 - 15:00

Integration Roadmap and Status between SSI and Smart Production

During this presentation the current status as well as the future roadmap between SSI and NESTIX Oy's Smart Production will be explained by Marcel Veldhuizen, Managing Director NESTIX Oy. The Integration of two data centric solutions, leveraging engineering data in combination with shop floor data will enable new work processes as well as new insights within the project status. Also leveraging feedback loops between both solutions will support the impact analysis capabilities of engineering changes into the production process and therefore project results.

Day 3 - 10:00 - 10:20

SPONSOR & SPEAKER PROFILES

iYaldi

iYaldi is located in the South of France between Nice and Cannes.

iYaldi was setup in 2018 in collaboration with Nick Danese Applied Research .

The idea (Philosophy) behind the company is to introduce Information Technology tools to the Naval Architecture world.

Julian Smith

Founder and Manager of iYaldi

(presented by Nick Danese)

Graduate from Coventry University in 1989 in **Systems Engineering**, Julian worked in the area of Information Technology first in IBM then in Amadeus in Italy, Germany and France. iYaldi, located in the South of France, was created in 2018 to introduce Information Technology tools to the Naval Architecture world. The first iYaldi software product to be released is iNotifika EP, an application designed to assist in supervising several concurrent PublisherLT running on various ShipConstructor stations.

Presentation

iNotifika EP, by iYaldi:

The iNotifika EP solution directly supports SSI ShipConstructor PublisherLT, automatically executing and tracking operations. iNotifika's features include scheduled running of operations, generation of Operation run reports, notification of Operation outcome and bespoke logging.

iNotifika is a Windows based solution that offers a user-friendly flow driven interface to ease PublisherLT operations automation and monitoring, thereby allowing central monitoring of several PCs running EP Client PublisherLT and automatically informs individuals of Operation relevant to them.

Day 2 - 17:25 - 17:45



SPONSOR & SPEAKER PROFILES



McNeel

Founded in 1980, McNeel is a privately-held, employee-owned company with development, sales support, and training offices and affiliates in Seattle, Boston, Miami, Medellín, Barcelona, Rome, Tokyo, Taipei, Seoul, Kuala Lumpur, Beijing, Shenzhen, and Shanghai. We also have more than 700 dealers, distributors, OEMs, and training centers around the world.

McNeel Europe

Founded in 1998, McNeel Europe is the European, Middle Eastern, and African headquarters for Robert McNeel & Associates. McNeel Europe is responsible for sales, marketing, training, support, and localization of all McNeel products in Europe, the Middle East, and Africa (EMEA).

McNeel Europe also develops Penguin, Food4Rhino, and other Rhino related products.



Carlos Pérez Albà

Business Development at McNeel Europe

Joined McNeel in 2000 and currently in charge of Business Development in EMEA, partnering with resellers, 3rd party developers, industry software and hardware manufacturers, users and trainers.

Studied Economics (Universitat de Barcelona and Otto-Friedrich Universität Bamberg), Illustration (Escola Massana) and Business Management (IESE School).

Presentations

Rhino 6 Advanced & Grasshopper Present-emo

Combine advanced features of Rhino3D v6 with the power of the relational/parametric world of Grasshopper. Already used by more than 450,000 professionals and in 10,000 schools Rhino3D supports the very fast development of designs and accurately communicate them to everyone in the product research, development, marketing, and manufacturing or construction process. Rhino3D is the recognized standard in the Marine industry, with seamless connections to several other naval Architecture and shipyard favorite software.

Day 2 - 09.20 - 09.40

Rhino 7 Sneak Preview

Rhino3D v7 moves modelling to the next technological level with Sub-D Modeling, QuadRemesher, Cycles – Realtime Ray-trace Renderer, Mesh Intersection, Gradient Hatches, Single Stroke fonts, Text Field improvements...), as well as new Development frameworks (Compute, Rhino Inside).

Rhino.Inside is an open-source Rhino WIP project which allows Rhino and Grasshopper to run inside other 64-bit Windows applications such as Revit, AutoCAD, etc.

Day 3 - 11:40 - 12:00

SPONSOR & SPEAKER PROFILES



NDAR, Est. 1988, is a specialized naval architecture & marine engineering firm providing process analysis & management and a full spectrum of software & engineering services for the design & production of yachts, workboats, commercial/Navy ships, offshore, etc. Moreover, NDAR also provides customized Business Process Assessment and Implementation Consulting services.

NDAR is part of a large international team focused on making the most modern technology and IT tools available to all customers in asynchronous fashion, in an integrated "data space", regardless of their field of activity or company size and quickly maximizing ROI in the shortest time via an integrated software environment generally referred to as the "Synchronized Shipyard". NDAR's partners include SSI Canada, PROSTEP, Hexagon-Nestix, BAS Engineering, Autodesk, AutoFEM, CostFact, iYaldi, and their software ShipConstructor, ShipWeight, ExpressMarine, Orca3D, Rhino3D, GHS, MAESTRO, NavCad, etc. Recent "Best in Class" initiatives produced:

- integration of FE and CAD modelling (ShipConstructor, AutoFEM, MAESTRO)
- integration of various design tools (MAESTRO, GHS, ShipWeight, NAPA, NAPASsteel, Seakeeping, etc.)
- development of innovative shipyard management support strategies (EnterprisePlatform®, ERP, PDM, PLM)
- the SSI Shipbuilding PLM product based on the the ARAS open PLM platform and ready to use out-of-the-box toolset
- NAPA Steel Connector : convert NAPA Steel model to native, rich ShipConstructor parts
- Siemens Connector : convert ShipConstructor model to native, rich Siemens PLM parts for TeamCenter & NX
- ExpressMarine Connector: convert ExpressMarine model to native, rich ShipConstructor parts.



Nick Danese
Founder and CEO at NDAR

Is the founder and CEO of NDAR, an applied research business established in 1987. Following a BS Mechanical Engineering (1981, University of Arizona) and a MS Naval Architecture and Marine Engineering (1983, University of Michigan), a challenge-rich career continues, having already spanned research in riser failure due to buckling, America's Cup and WRTW racers, gas turbine & jet propulsion for yachts, structural analysis innovative techniques, production engineering, etc. And has progressed to the current work in integrated process analysis, industrial ecosystem ROI strategies and IIoT&S integration to support the overall ship design and production realm. Nick worked with several software and industrial SSI since 1991, and in 2010 became the SSI Senior Partner EMEA.

Presentations **Latest & Greatest**

SSI have released a significant amount of enhancements, new developments and even new products in the recent past. Increased and/or better use of everything the ShipConstructor software and environment offers is an easy and immediately available way to more productivity and greater ROI. A summary review will (re)discover these often-overlooked gems.

Day 1 - 14:00 - 14:20

ShipConstructor Resources & Help

Help is everywhere! There are many sources of help available to the ShipConstructor user: contextual, referential, manual, videos, discussions, ClientCare, Knowledge Base, etc. In fact, so much help is available that not everyone is aware of it all, a topics very well worth revisiting.

Day 1 - 15:00 - 15:20

Robotics: Car-W, from ShipConstructor model to 9-axis welding

From model to 9-axis robot, directly: the quintessence of the unique collaborative power provided by the EnterprisePlatform paradigm.

Day 1 - 16:20 - 16:40

EnterprisePlatform Operations Overview: What is There

The thousand helping hands who know what to do and do it while you are sleeping. To date, SSI have released some 150+ Operations for EnterprisePlatform. PublisherLT and Publisher use the same Operations. While Operations are readily available to all, there are so many that it is worth reviewing the list to help making sure that everyone is aware of this treasure.

Day 2 - 11:40 - 12:00

SPONSOR & SPEAKER PROFILES



Presentations

Shared & Collaborative Environment (1)

The Synchronized Shipyard paradigm: the successful enterprise optimizes the collaborative performance of the best in class resources available: people, machines, processes, software, supply chain, partners, etc. The ability to combine the distributed workflow into a coordinated, collaborative process is key to success. How does ShipConstructor support the distributed/collaborative environment: the symbiosis between being Platform of Platforms and the collaborative EnterprisePlatform environment.

Day 2 - 14:20 - 14:40

ShipConstructor Unlimited: Detail Design & Production Engineering in Building Buildings

The engineering, production, ERP and PLM processes in land building are strikingly identical to that of shipbuilding, especially when it comes to pre-built Volume Elements. The Sizes *Works* case study is a textbook benchmark of using SSI's EnterprisePlatform and ShipConstructor in parallel and downstream of architectural design as the production engineering and manufacturing management platform, in direct support of the overall, extended company process.

Day 2 - 15:40 - 16:00

Shared & Collaborative Environment (2)

Synergies and certain overlaps between platforms and process components constitute a significant advantage and especially so in presence of shared, distributed, collaborative work. A closer look at the interaction and mutual support provided by the Autodesk / McNeel platforms focuses on the ability this provides to several applications to contribute to a common "space". Crucially, alternative workflows can then be implemented that make optimum use of available resources by dynamically adapting to change and unexpected situations.

Day 2 - 18:00 - 18:20

EnterprisePlatform: the Deliverables Machine

One fundamental mission of EnterprisePlatform is to keep documents up to date and to deliver them to the designated consumer(s). Documents are, in fact, files of any type, format and content as can be produced by any "scriptable" software. This unique tool makes child's play of the creation and maintenance of an archive of unprecedented extents. Far greater and more direct support of stakeholders too often not kept in the loop becomes automated with immediate, measurable and extended benefits.

Day 3 - 09:40 - 10:00



Stéphane Dardel
Naval Architect at NDAR

MSc Naval Architecture and Marine Engineering Science from the University of Southampton (UK), has considerable experience in all fields of the Marine and Yacht industries. In addition, during his several years at Design Systems & Technologies, Stéphane was an early user and key in the development of several specialized software programs, which NDAR continues to offer. Stéphane's diversified experience includes project management at world-famous Espen Oeino Naval Architects and a key role in the genesis of several acclaimed motor yachts while working with Philippe Briand Naval Architects.

Presentation

ExpressMarine: a ShipConstructor Pre-Processor

ExpressMarine, Rhino3D's parametric structural modelling plug-in, is presented as an out-of-the-box solution used as a modeling pre-processor for ShipConstructor. The native ExpressMarine/ Rhino3D geometrical model is read directly into AutoCAD/ ShipConstructor, and serves the purpose of laying, starting day 1, a 3D groundwork in ShipConstructor, usable for GA plans, on-board system layouts, functional placement of equipment, etc. The ExpressMarine model is evolutive and can be conveniently re-imported into ShipConstructor at any moment along the design process, for example to follow the evolutions of the naval architecture model (hull form updates, or else). The use-case of a 115m Fast Ferry demonstrates one of several possible workflows.

Day 2 - 09:00 - 09:20

SPONSOR & SPEAKER PROFILES



PROSTEP AG is a leading, vendor-neutral consulting and software company for all aspects of product lifecycle management (PLM). Our shipbuilding experts provide our customers with support for their digital transformation and helps poise them for Industry 4.0. PROSTEP's key strengths include PLM strategy consulting and process optimization, system selection and implementation, PLM integration and migration, as well as secure data exchange and conversion. With OpenPDM, PROSTEP provides an integration platform enabling the digital thread across many relevant standard enterprise systems including CAx, PDM, and ERP. OpenPDM SHIP, the maritime edition of OpenPDM adds topology-based connectivity to shipbuilding specific CAD environments including AVEVA, CADMATIC, HEXAGON, NAPA and SSI.



Matthias Grau

Account manager for the shipbuilding industry at PROSTEP

Dr. Matthias Grau (born 1965) has been with PROSTEP since 2003 and is currently account manager for the shipbuilding industry and head of the Hamburg branch office.

As Consultant for PLM Processes & Methods and Enterprise Architecture Management he also gained experience in other industries such as aerospace and automotive.

Grau sees himself as an intermediary between subject matter and IT experts, who can explain complex matters to non-experts.

His educational background is skilled worker for machining technology and academical grade of Dipl.-Ing. as a Naval Architect from University of Rostock before earning his doctorate in the field of offshore structural engineering at Aachen University (RWTH).

Presentations

OpenPDM SHIP – Integration Platform to connect ShipConstructor and Standard PDM Systems

For more than 10 years OpenPDM is the vendor-neutral integration platform to connect PLM environments including CAx, PDM, ERP, and legacy systems.

Used by numerous discrete manufacturing companies in automotive, aerospace, transportation industries to migrate data and realize internal as well as external collaboration processes the platform has recently received a new feature: connectivity support for shipbuilding specific development tool sets such as SSI's ShipConstructor and Enterprise Hub.

The presentation will introduce OpenPDM and how it connects PLM environments and show how this would look like for the integration of ShipConstructor and Siemens' Teamcenter.

Day 2 - 15:00 - 15:20

OpenPDM SHIP – CAD Conversion and Integration for the Marine Industry

For more than 10 years OpenPDM is the vendor-neutral integration platform to connect PLM environments including CAx, PDM, ERP, and legacy systems.

Used by numerous discrete manufacturing companies in automotive, aerospace, transportation industries to migrate data and realize internal as well as external collaboration processes the platform has recently received a new feature: connectivity support for shipbuilding specific development tool sets such as SSI's ShipConstructor and Enterprise Hub.

The presentation will introduce OpenPDM Ship and its shipbuilding specific CAD conversion and integration capabilities and show how this would look like for the integration of NAPA Steel and ShipConstructor to promote early design steel model data natively into the basic and detailed design process.

Day 2 - 16:20 - 16:40

SPONSOR & SPEAKER PROFILES



Talent driven
culture.

QSR is a strategy consulting firm developing high-end solutions within human capital, and specialized in industries with high technological intensity including Aerospace & Defense, Maritime and Energy.

We work with leaders to help organizations thrive and achieve a sustainable competitive advantage by aligning the employees with the organization culture and strategy.



Carlos Maio
Executive Manager of QSR

Carlos Maio has a degree in Management and Finances from ISEG – Lisbon School of Economics & Management. With more than 17 years of experience in Human Resources Consulting, in practices such as human resources and business management, Carlos focused his skills in Aerospace and Defense since 2005 and, more recently, on Maritime and Energy industries. From 2014, Carlos is the Executive Manager and founder of QSR, a strategy consulting firm developing high-end solutions within human capital, specialized in industries with high technological intensity.

Carlos is regularly invited to deliver workshops and presentations at universities and other organizations on subjects related to leadership, entrepreneurship, and labour market integration. His professional experience includes the accountability as Marketing and Commercial Manager on a European certified aeronautic maintenance training organization. Also, he has been involved in various European R&D projects for Skills in Aerospace and Maritime.

QSR was granted with the leading role of the EACP (European Aerospace Cluster Partnership) Skills Working Group which the main objective is to bring and integrate the best practices of Human Capital sciences to the high technological intensity aerospace sector, enhancing the capacity of the sector to integrate disruptive and high productivity technologies, products and processes.

Also, had the privilege of being presented with a Certificate of Recognition for our performance within the Skills Working Group by the Free and Hanseatic City of Hamburg and the European Aerospace Cluster Partnership.

This year, QSR had the opportunity to participate in the 8th European Conference for Aeronautics and Space Sciences to deliver a paper on how to attract young talent to the aeronautic sector.

Presentation

Integrated Skills – Linking Academy with Industry

Introduction: “Entrepreneurs, You have to break into Schools and Universities” – Maria Fernanda Rollo, former Portugal Higher Education secretary of state, in *Observador*

The demographic crisis in Europe and the fourth industrial revolution pose a serious problem for companies and universities to meet the immediate and future needs of skilled profiles, particularly in technologically intensive industries such as the Naval sector.

The first ones to integrate them, the second ones to form them according to the quantitative and qualitative needs of the market.

Therefore, the linkage and joint work between them will need to be strengthened and involve an increasingly “out of the box” approach.

In addition, the excellence of technical training it's scarce to respond to the market skills demand. Schools and Universities (together with companies) must contribute to the student's personal development, preparing them for the social challenges that integration and professional development entails.

Day 2 - 12:40 - 13:00

SPONSOR & SPEAKER PROFILES



ROYAL HUISMAN

Royal Huisman employs a team of over 330 highly motivated and skilled people, from shipwrights to concept designers, with extraordinarily diverse experience and capabilities, working at a custom-build shipyard on a premises of more than 30,000sqm. Founded in 1884 Royal Huisman has evolved from modest builder of wooden workboats to multiple award-winning creator of some of the finest superyachts in the world. Royal Huisman is an extraordinary blend of 21st century technology and innovation, traditional craftsmanship and timeless values. The combining factor between employees, the yard as well as customers? They are perfectionists. Owners welcome the reassurance that the Royal Huisman team believes firmly in standing behind its work, providing expert advice, service and support worldwide, twenty-four hours a day, not only throughout the warranty period but far into the future.



Lambertus Oosterveen
CAD manager at Royal Huisman

Self-taught CAD enthusiast Lambertus is CAD Manager at Royal Huisman. From window cleaner to AutoCAD master, in 1985 Lambertus joined permanently Royal Huisman as the 76th employee in the early beginnings of computed aided design with AutoCAD 2.0.

Lambertus has ever since been one of the main driving forces of efficiency and automation within Royal Huisman Shipyard by introducing the most modern software tools. In parallel, he has closely collaborated with Autodesk, SSI, and NDAR in the development of ShipConstructor or other tools.

Presentations

Project Insights, Power BI & the usage of PartData

A case study of PartData usage together with Project Insights and Power BI.

Day 1 - 15:40 - 16:00

Project Insights Overview

An Overview of Project Insights, how to combine and scale up the capabilities of Project Insights with Microsoft Power BI technology. A case study using SSI_Training_Project.

Day 2 - 09:40 - 10:00



João M.A.C. Esteves Silva
Engineer at Royal Huisman

Following his MSc in Naval Architecture & Marine Engineering from IST (Technical University of Lisbon) João started working with Vera Navis (2011-2015) where he gained experience in many areas of ship design and has performed as Owner's Technical representative in shipyards in Serbia and Turkey.

Between 2015 and 2017 João worked as a Senior structural engineer at a Croatian engineering design office where he assumed leadership and coordination roles.

With accumulated in-depth expertise in a variety of shipbuilding software's, João currently works at Royal Huisman's engineering department.

Presentation

MarineDrafting at Royal Huisman: distributing up to date 2D information across the Shipyard through PublisherLT.

Generating synchronized 2D information, from the same models that feed the SSoT (Single Source of Truth) model, for an entire shipyard. With MarineDrafting 2D cross-sections are extracted from ShipConstructor models, exported via PublisherLT, combined with other sources of information and distributed to the whole organization on a regular/scheduled basis. All software's used to generate 3D information operate autonomously and in synchronism so that non-ShipConstructor engineers can benefit from highly accurate and up to date 2D sections for their documentation.

Day 2 - 12:00 - 10:20

SPONSOR & SPEAKER PROFILES



Aerys is a French Paris-based software company that designs, develops and markets the SmartShape solution. SmartShape is a platform that enables the creation of connected, collaborative and programmable digital twins that can be used in a variety of industries : construction, shipbuilding, AEC... Aerys covers all major international markets with offices in Europe and North America.



Jean-Marc Le Roux
CEO and founder of Aerys

Jean-Marc Le Roux is a software engineer, CEO and founder of Aerys, the company that developed SmartShape. As acting project manager, he also supervised the implementation of SmartShape at Chantiers de l'Atlantique (on multiple use cases such as piping, hull, electrical engineering...) and Bureau Veritas.

Presentation **Smartshape**

Shipbuilding is getting more and more complex. And collaboration between the increasing number of stakeholders is challenged. That's where SmartShape - a platform to build connected, collaborative and programmable digital twins - thrives. Discover how SmartShape is used by shipyards - but not only - to increase quality and cost efficiency.

Day 3 - 14:00 - 14:20

SPONSOR & SPEAKER PROFILES



SHIPCONSTRUCTOR®



EnterprisePlatform™

SSI makes it easy to solve the shipbuilding industry's unique challenges by empowering shipbuilders to focus on the business of shipbuilding. We live and breathe the rapidly evolving technologies that define the future of shipbuilding and understand how to implement them specifically for shipbuilders. By working with shipbuilders to solve their business challenges with technology, SSI gives them the power to concentrate on what they do best - shipbuilding.



Denis Morais
co-CEO at SSI

Denis has been internationally recognized for his published blogs, articles and papers and continues to provide insights on innovative solutions for the marine industries. He has worked for hand in hand with industry partners and SSI's clients around the world to solve their most difficult business and technology challenges.

This depth of understanding of both the current and future state of technology and the business of shipbuilding serve Denis well as he leads SSI towards the delivery of innovative products and services.

Presentation

SSI: SSI Open Shipbuilding Platform

30 years on, SSI has come a very long way since the days of ShipCAM. SSI continues to look into the future of where the "Puck is going to be" and continues to evolve the SSI Open Shipbuilding Platform. Denis will explain how he sees the shipbuilding future and how SSI is continuing evolving to exist in this future. This will provide context to many of the partner presentations throughout the conference.

Day 2 - 14:00 - 14:20

SPONSOR & SPEAKER PROFILES



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Jagan Seshadri
Product Owner at SSI

Jagan Seshadri is a Product Owner at SSI, responsible for EnterprisePlatform and DigitalHub / Shipbuilding PLM. By understanding clients' workflows, day-to-day challenges and future plans, Jagan works to guide the development of software to serve the needs of industry.

Jagan earned his bachelor's and master's degrees in electrical engineering, and has spent the past fifteen years in client-facing and leadership positions developing technical software for the telecommunications, petroleum, and marine industries.

Presentations

Hull Effectivity & Change Management

Identifying and managing design changes is valuable when working on a single ship, but becomes of paramount importance when working on a series of ships within a class. Jagan will explain SSI's vision of how to handle changes among "sister ships", and how new technologies from SSI can transfer design changes between hulls today.

Day 1 - 14:20 - 14:40

EnterprisePlatform

A wealth of information is contained within a ShipConstructor project, but sharing this information efficiently and effectively can pose a challenge, especially when non-ShipConstructor users are part of your audience. Jagan will explain how EnterprisePlatform can be used to present information in a more consumable manner, resulting in better awareness and better decisions.

Day 1 - 17:20 - 17:40

DigitalHub – The Shipbuilding Information Platform

The DigitalHub information platform provides teams with a web-browsable "360 Degree View" about ship designs, documents, and deliverables. From understanding the impact of a proposed design change, to quickly browsing tabular and graphical outputs, Jagan will explain the value of DigitalHub and its role in SSI's ShipbuildingPLM strategy.

Day 3 - 09:20 - 09:40

DigitalHub in Action

A follow-up to "DigitalHub – The Shipbuilding Information Platform", Jagan will demonstrate how DigitalHub works both as an information browsing tool, and as a change management enabler.

Day 3 - 11:00 - 11:20

SPONSOR & SPEAKER PROFILES



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Norman Eldridge
Product Owner at SSI

Norman is a Product Owner at SSI and heads the Client Success team. Working with our clients on an everyday basis gives Norman a unique understanding of their pains and challenges. Client Success works to ensure that clients are able to get the most from our software to meet their specific needs.

Presentations

Project Insights, CIP and other "Project Management" tools

Understand how you and your team are using ShipConstructor to improve efficiency. Project Insights provides you with simple and easy access to project usage information, and presents the data in easy to use reports that can be leveraged by managers to monitor the state and progress of their project. Project Insights will help you understand project revisions activity, drawing activity, part data, and when the work is being completed.

Day 1 - 14:40 - 15:00

NEXUS & SSI Learning

SSI is committed to staying close to our user community so that our product development meets both your current and future needs. SSI Nexus provides the focal point and top resource to engage and learn from the SSI community, to learn about and get SSI products. Learn about what has been going on at SSI Nexus, how to get the most out of Nexus and SSI Learning, and how to influence SSI's development roadmap using the Nexus Wishlist.

Day 1 - 16:40 - 17:00

Ship Explorer

Everyone uses Navisworks and ShipExplorer is designed for you. ShipExplorer provides a greatly streamlined workflow to directly access, view and manage ShipConstructor projects. Learn how to install ShipExplorer, load and switchback ShipConstructor projects, as well as view revisions, find parts in drawings, load, view, and save ProductHierarchies and Tasks as sets.

Day 2 - 10:00 - 10:20

SSI Innovation and R&D

Learn about recent SSI innovations and development projects; SSI's work towards automating the process of robot programming for welding; Provide a means to generate "Lift Package" output drawings from ShipConstructor to describe the lifting configuration and required components for Lifting and Turning; SSI's Genesis development API (for software development partners) to facilitate the ability to consume information from various other sources for use within SSI products; and ShipConstructor Clashes to identify, manage, and resolve when modeled parts interfere with one another as early as possible to avoid downstream discovery and costs.

Day 2 - 12:20 - 12:40

Road Map – Future and Wishlist

Get an overview of SSI's product development roadmap priorities for the next few years, and learn how you can engage and influence these developments. Strengthening the fundamentals to support a more powerful future.

Day 2 - 17:40 - 18:00

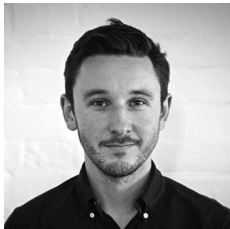
SPONSOR & SPEAKER PROFILES



Founded in 2010 and growing steadily over the last 9 years, STRUCTeam has established itself as one of the world's leading, independent composite engineering and consultancy companies.

STRUCTeam specialises in the design engineering of advanced composite structures providing management and technology consultancy services. With a dedicated team of engineers, STRUCTeam utilises its specialist knowledge ensuring our clients are guided to the most suitable technology for their unique composites application from design concepts and material selection to 3rd party certification and manufacture.

STRUCTeam uses state of the art analysis software (Catia, Ansys for FEA, and COMPOSIDE). The COMPOSIDE platform integrates project inputs (design standards, material properties and partial factors, geometry, etc.), the analysis work (including any FEA), and the resulting laminate schedules in a cohesive and traceable project resource.



Jonathan Evans

Composite Design Engineer at STRUCTeam Ltd

Jonathan has a BSc in Marine Sports Technology from University of Plymouth (UK) and has been a design engineer working for STRUCTeam and an application engineer for CompoSIDE since 2013. He has been involved in the design of a varied assortment of vessels, from lightweight carbon fibre tenders, racing yachts, workboats and ferries.

Jonathan is also involved in the support and development of CompoSIDE, alongside training and support for users across the world for those who are developing their knowledge in design of composite materials.



Tom Matthews

Key Account Manager

Tom has worked for STRUCTeam as a Key Account Manager for almost 1 year.

Tom has over eight years' experience in Sales and in managing multi-national clients from all over the globe, in addition to this he also has strong foundations in Business Development and Operations.

Presentation

CompoSIDE – Game Changing Software for Composite Marine Engineers

STRUCTeam, a group of structural engineers and material scientists who specialise in composite materials and regularly use FE software to run models and perform load analysis recognised that there wasn't a software on the market designed specifically for composite materials. Working with software engineers, STRUCTeam's composite experts imparted their knowledge and created CompoSIDE.

CompoSIDE is an integrated suite of web-based design engineering modules and data management tools. It possesses a dedicated modern scantling software module called YACHTScant, specifically for Yacht Designers and Naval Architects working with composite materials. YACHTScant provides a centralised environment for scantling of sailing yachts and motor boats according to ISO and DNV-GL classification standards as well as workflows to cover Lloyd's and Bureau Veritas guidelines.

CompoSIDE possesses a database of over 1,200 materials and their associated properties, including glass and carbon fibre plies, resins, cores, metals and more.

This presentation will show case studies of CompoSIDE being used effectively in various marine projects and demonstrate its innovative features and its benefits to the user.

Day 3 - 09:00 - 09:20

SPONSOR & SPEAKER PROFILES



Técnico Solar Boat is a university project that works on the development of a manned competition vessel powered exclusively by solar energy. Counting already with two finished prototypes that go by the name of São Rafael (SR) 01 and 02 respectively. The SR 02 is 6m long by 2m wide and can reach speeds up to 24 knots. One of their objectives is to participate in international competitions held in the Netherlands and Monaco respectively, and they feel that their main responsibility is at the same time to promote renewable energies, sustainability and electric mobility.

Currently they are a unique project in the Iberian Peninsula.

In the month of July, they were crowned vice champions of the world against 34 teams of 14 different countries in the Monaco competition, their best result so far.



Dinis Rodrigues

Team Leader of Técnico Solar Boat

Dinis Rodrigues, Team Leader of Técnico Solar Boat. He is a student of Electrical and Computer Engineering at Instituto Superior Técnico, his constant search for challenges and sciences of the future made him follow a MSc in Control and Automation.

His curiosity for innovative projects led him to discover Técnico Solar Boat back in 2016 where he spent two years in Electrical Systems before becoming Team Leader in April of 2018.

His ambition is to promote and internationally represent Portuguese engineering at the highest level among its colleagues.

As a recent achievement they recently became Vice-Champions of the world in the most recent competition of solar boat racing that was held in Monaco.

Presentation

Técnico Solar Boat

Técnico Solar Boat is a university project, made up of a group of students from the most varied engineering courses of Instituto Superior Técnico. They work on the development of a manned competition vessel powered exclusively by solar energy.

Day 3 - 15:00 - 15:20



SPONSOR & SPEAKER PROFILES



Naval Architecture • Marine Engineering • Shipbuilding Software

Vera Navis is a marine design office providing a full range of services from concept design to detail engineering. Established in 2009 by three naval architects and a renowned company of Ship Design/Production specialized in CAD/CAE/-CAM software. Vera Navis brought together different professionals from ship design offices and shipyards into a multidisciplinary team.

Today the team has grown to cover the main areas of Ship Design, having human resources specialized in state of art methodologies and tools.

We provide the full scope of ship design services, from concept to detail design as well as specialized engineering analysis of structures, systems and flow analysis.

Working in close relationship with our customers, we offer cost-effective solutions using integrated tools. Our clients are shipowners, shipyards and design offices looking for on-time, on-budget and on-quality deliveries with a high level of expertise and multidisciplinary integration.



Filipa Sanches

Project Manager - Naval Architect at Vera Navis

Has a BSc and a Master's Degree in Naval Architecture and Engineering of Instituto Superior Técnico (Lisbon). Her thesis was about Parametric Modelling of Hull Form for Ship Optimization, where she worked with the software Friendship-framework.

In the summer of 2014, she did an internship with Trimarine Composites Lda, where she explored the CAD software CATIA developing the 3D hull for a traditional Tejo vessel.

Since 2016, she is part of the Vera Navis team, working with the development of ship systems on ShipConstructor.

Presentations

The Subscription Advantage Pack

This presentation will go over some of the most promising and interesting new features being offered in the Advantage Pack.

Day 1 - 15:20 - 15:40

Creative use of Marine Drafting

Right from the early days, with its modest debut as an Advantage Pack testing feature, it was clear that Marine Drafting was due to become a major productivity booster. A few years later, and following a substantial upgrade in functionality in 2018, there is even more room for the creative use of this versatile tool.

Day 3 - 11:20 - 11:40

SPONSOR & SPEAKER PROFILES



Naval Architecture • Marine Engineering • Shipbuilding Software



Luís Batista
co-CEO at Vera Navis

Co-founder and managing partner of Vera Navis, since 2009.

Holds a degree in Engineering and Naval Architecture from the University of Lisbon, Instituto Superior Técnico. After completing his degree, he worked at the German Shipyard BLOHM + VOSS in Hamburg as assistant manager of construction projects.

Served as Superior Naval Technician in the Navy between 2005 and 2007 in Directorate of Ships – Lisbon Naval Base in the Department of Maintenance – Division of Technical Sectors Structures and Platform.

Between 2007 and 2009 he has developed construction supervision team leadership roles for several Norwegian Clients building in Portugal, Turkey, Romania, Latvia, Serbia.

Presentation

Zero Emission Double Ended design

The increasing requirements for low emission ship designs are changing the shipbuilding industry irreversibly. The propulsion systems and their classical energy sources are changing rapidly and soon the ships that we are used to know will no longer exist. Following this direction and trend, Vera Navis Ship Design is going to present a concept design that is being developed for a national municipality to substitute an existent double ended Ferry. The presentation will focus on the resistance and powering calculations and selection of propulsors. It will be explained the process of dimensioning and selection of battery banks and the principal one-line diagram that entails the main operational requirements.

Day 3 - 12:40 - 13:00



SPONSOR & SPEAKER PROFILES



Naval Architecture • Marine Engineering • Shipbuilding Software



Pedro Antunes
co-CEO at Vera Navis

Co-founder and managing partner of Vera Navis, since 2009.

Has a degree in Engineering and Naval Architecture from IST – Instituto Superior Técnico of the University of Lisbon.

Frequency of Master's Degree in Building Thermal Engineering from FEUP – Faculty of Engineering of the University of Porto and Frequency of Master's Degree in Aquaculture from IPL – Polytechnic Institute of Leiria.

Between 2000 and 2005 he was a designer at the APEN gas network company. Subsequently, between 2005 and 2007 he served in the ENVC – Naval Shipyards of Viana do Castelo in the AVAC discipline project between 2007 and 2009 he was Supervisor of new constructions for several Norwegian Customers building in Portugal, Turkey, Romania, Latvia, Serbia.

Presentations

The Weld Module

Welds encapsulate a substantial share of the building process and having those properly defined as logical entities in an integrated environment can be a quick win for certain workflows. In this presentation, we will see that, when extending the application to its full potential, we will not be falling short from revolutionizing the way we perceive output information and structural production packages.

Day 1 - 17:40 - 18:00

Distributive work management strategies

The continuous development on faster network connections and affordable cloud services has opened new possibilities for multi-site project management. This presentation will cover some of the new exciting options.

Day 2 - 11:00 - 11:20

ShipConstructor, a game changer

Following 10 years of continually engaging in process implementation using Shipconstructor, one comes to conclude that flexibility is paramount. This presentation will go through a few case studies where we, probably, couldn't have done it without it.

Day 3 - 12:00 - 12:20

SPONSOR & SPEAKER PROFILES



Naval Architecture • Marine Engineering • Shipbuilding Software



Tiago Fernandes

Aerospace Engineer at Vera Navis

Tiago Fernandes studied Aerospace Engineer and guided his professional experience to computational tools and expertise within multidisciplinary engineer projects. With participation in projects for individual or complex assembly structural assessment, computational fluid dynamics to evaluate pressure, temperature and other relevant variables and projects in data analysis and machine learning techniques, the accumulated expertise allows a broad point of view in each day-to-day engineering problem.

After four years working as a consultant for multiple industries like automotive, aerospace, naval and heavy industries, arose the opportunity to embrace a naval engineering career making use of all previous expertise and complement it by learning the necessary set of skills and knowledge to address both project and construction of a vessel. He is currently working as a Project Manager at Vera Navis, ensuring that all production information comply with client tight schedule and ongoing improvements/decisions as well as the constant technological challenges.

Presentation

Ship Structural Assessment for Increasing Operation Conditions in Harsh Environments.

Over the past years, we witnessed a demand for increasing internal pressure on the cargo tank of specialized vessels. Despite all the experience in designing different vessel types, we found the need to use computational tools (FEM) to evaluate and re-design the main structure according to all new operational conditions.

At the beginning of the project we defined which were the more demanding operational load cases for the structure. Despite many advances and setback throughout the entire project, the team reached a solution to satisfy the client needs and, bearing in mind all the construction process, to avoid complex challenges at future phases.

The global overview of the project, using a cross-disciplinary and collective constructivism, contributed to a better end-product with lower risks and bottlenecks throughout the certification and construction phases of the vessel.

Day 3 - 14:20 - 14:40







Naval Architecture • Marine Engineering • Shipbuilding Software



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