NUPAS CADMATIC

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news

NUPAS-CADMATIC SOFTWARE NEWS 2009-2010

Optimizing Resources when most needed

NEW

User interface in Version 6

OPTIMIZING RESOURCES

NUPAS CADMATIC news

Optimizing resources when you need it most

In the past months the world has seen one of the largest financial and economic recessions in a generation. It has not bypassed the shipbuilding industry and the number of new ship orders has decreased substantially. In spite of the current global economic challenges, we will achieve our planned financial and business development goals for Nupas-Cadmatic this year too. Recessions also create opportunities and the shipbuilding industry is currently especially in need of solutions that increase efficiency and productivity and cut costs. It is Nupas-Cadmatic's goal to provide the best solution for these requirements and the 300 customers in 35 countries in the shipbuilding industry alone, speak volumes for the success that has already been achieved.

Nupas-Cadmatic users make extensive use of the software's modern and proven ability to openly share data between users in different locations and companies. As a result, our clients are building design networks and making more effective use of subsidiaries and globally distributed subcontractors. The number of software users and number of locations where Nupas-Cadmatic is used is increasing significantly.

One of the most important goals of our current software development projects is to shorten the time it takes to learn and start using the system. The new Nupas-Cadmatic Version 6 will include arguably the most modern user interface on the market, which will result in an even faster start-up time for new users. For the first time, people who are familiar with Windows Office tools experience the same look and feel in 3D ship design software.

Other important goals are integrating the design, engineering and data management phases and disciplines, avoiding redoing work and improving the quality of design, engineering and material management. Our clients are extending their application of Nupas-Cadmatic software from detail and production design towards the basic and initial design phases. Version 6 will include much new functionality for rapid 3D modelling in the earlier phases, e.g based on modular design and engineering.

The ability to do design, engineer and create production data automatically, reliably and easily, is one of the major values of Nupas-Cadmatic software. Another important area is the ability to utilize the created design and engineering data for different purposes: for supervising, for purchasing, for installations, for prefabrications and for communication between project parties. In this field Nupas-Cadmatic has been an industry forerunner. eBrowser was the first Internet based software for effective 3D walk through and data queries. The new Version 6 release will once again take utilization of 3D data to a totally new level. Interoperability with other systems, e.g with ERP, PLM and material management is important; Nupas-Cadmatic's open architecture enables us to fulfil our clients' specific requirements in this regard.

We understand that Nupas-Cadmatic's past and future success depends on very motivated people. We appreciate the close cooperation and communication there is between our R&D and customer services and our clients' representatives. Thank you to all existing and new clients.

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Nupas-Cadmatic Management

Business News

Nupas-Cadmatic can look back at more than satisfying sales results for the past 12 months. After the 2007 shipbuilding boom, where all previous records were broken, sales have returned to and stabilized at early 2007 levels. Despite the current worldwide economical recession it seems that this trend will continue through 2009. The fact that the impact of the recession has been less hard felt than expected is a direct result of our ability to adapt our license policy quickly to the changing market demands. The amount of rental licenses has increased by 27% compared to the beginning of the recession, which enabled many of our clients to take on projects with less risk. The number of customers grew by 18% year on year and now totals 300 in 35 countries.

SDARI headquarters in Shanghai, China

NYK Trading Corporation headquarters in Japan

ASIA

China

Nupas-Cadmatic is expanding in China. **SDARI Shanghai Merchant Ship Design and Research Institute** recently bought Nupas-Cadmatic software to use in their design and engineering activities. The staff have been trained and first projects were undertaken during the summer of 2009. Established in 1964, Shanghai Merchant Ship Design & Research Institute (SDARI) is a ship design consultant and part of China State Shipbuilding Corporation (CSSC). See article on page 14.

SDARI provides a full range of services from conceptual development to workshop drawings and is the market leader in respect of ship design and development in China.

Nupas-Cadmatic's sales organization in China is managed by Mr Tommy Au who has been appointed as Nupas-Cadmatic Sales Manager. Mr Au works out of Shanghai and is responsible for all sales activities in China. His contact details are available on page 28 in the Sales and Support Centres section.

Another new Nupas-Cadmatic user in China is **Ulstein China** located in Shanghai. Ulstein China offers engineering capacities, especially on coordination on engineering and design to shipbuilding projects for Ulstein`s ship design activities in China. In addition Ulstein China offers onsite production coordination and logistic support to Ulstein designed vessels under construction in China.

Japan

Nupas-Cadmatic's success in Japan continues. Japanese customers have warmly welcomed Nupas-Cadmatic software due to its efficiency as well as the ease with which it can be learned and customized according to the customer's needs. A new co-operation agreement was signed between Nupas-Cadmatic, NYK Trading Corporation in Tokyo and SEA Systems in Sasebo to further enhance the sales, support and training organization in Japan.

Several new customers have purchased Nupas-Cadmatic software and existing customers are also expanding the use of the software. New customers in Japan include **Miura Shipyard Co. Ltd** in Ohita and **Onimichi Shipyard** in Hiroshima. The

number of design offices using Nupas-Cadmatic in Japan is expanding. **Yano Ship Design Office** in Imabari has implemented Nupas-Cadmatic software for its ship design activities.

A significant contract was signed with **Oshima Shipbuilding Co. Ltd**, which is located in Saikai City on Kyushu island in the western part of Japan. Oshima Shipbuilding has highly efficient production and is respected for it throughout Japan.

Singapore

Nupas-Cadmatic recently signed a cooperation agreement with Singapore based **Maritime Associates Pte Ltd**. The company purchased the full package of Nupas-Cadmatic modules for its daily design and engineering activities (see Reseller on page 27). **NorCE Offshore Pte Ltd** purchased several Nupas-Cadmatic modules to support the construction of a Vik & Sandvik offshore vessel design. Vik & Sandvik (nowadays Wärtsila Ship Design) has been a renowned Nupas-Cadmatic user for many years.

Vietnam

The latest Nupas-Cadmatic customer in Vietnam is **PTSC Mechanical & Construction**, Vung Tau City. PTSC M&E builds offshore vessels for PetroVietnam. (see page 26).

AMERICAS

Brazil

STX Brazil Offshore, already a user of Nupas-Cadmatic Piping modules, purchased the Hull modules for the design and construction of their offshore vessels. (see article on page 24).

STX Brazil Offshore Ltd is the market leader in specialised offshore support vessels in Brazil

EUROPE

Finland

Foreship Ltd, located in Helsinki and Turku have implemented Nupas-Cadmatic software. Besides conceptual project designs, structural basic and detail design, Foreship is a leading expert in challenging cruise ship conversion projects.

Germany

Aurich-based **Enercon GmbH** is the third-largest wind turbine manufacturer in the world. It purchased Nupas-Cadmatic for the completion of the E-Ship 1. E-Ship 1 uses wind energy for propulsion to cut down fuel costs and reduce emissions. It uses four giant 25 meter high, 4 meter in diameter, rotating, vertical metal sailing rotors positioned to harness wind energy.

Enercon's E-Ship 1 uses wind energy for propulsion

Neptun Werft GmbH, situated in Rostock and known for the building of large river cruise vessels, purchased Nupas-Cadmatic modules to support the construction of ships that are designed and engineered by among others Neptun Engineering, also a Nupas-Cadmatic user.

Some other new clients that use Nupas-Cadmatic software in Germany are **Brenn- und Verformtechnik Bremen GmbH, Interschalt Maritime Systems AG, Ismotec GmbH, Knaack & Jahn Schiffbau GmbH,** design office **SMT GmbH and Yacht Teccon**, each providing their specific services to the shipbuilding industry.

Volkswerft Stralsund GmbH shipyard is the latest Nupas-Cadmatic customer in Germany

The latest company to sign a contract for Nupas-Cadmatic software in Germany is shipyard **Volkswerft Stralsund GmbH**, part of the Hegemann Group. Together with the other two shipyards, the Peene-Werft GmbH in Wolgast and the Detlef Hegemann Rolandwerft GmbH & Co. KG in Berne (also Nupas-Cadmatic users), the Hegemann Group operate three efficient shipbuilding sites which individually or together satisfy diverse shipbuilding requirements up to Panamax size vessels.

Italy

Italian **Shipyard Intermarine** in Sarzana purchased Nupas-Cadmatic for the design of vessels for the Finnish Navy. The engineering of the ship was done in co-operation with Elomatic in Finland. The first of the three ships in the 52.5 m Mine Counter Measures Vessels 2010 class was launched in June 2009. Intermarine is a member of the Rodriquez Cantieri Navali Group.

Intermarine's shipyard in Saranzana Italy

Poland

Dutch design company **Groot Ship Design** expanded their business and opened an office in Szczecin, Poland. Groot Ship Design uses Nupas-Cadmatic software and offers their customers everything from concept

design, basic engineering and detailed engineering to delivery documentation.

A keel section being laid at Astilleros de Sevilla shipyard in Spain

Spain

Nupas-Cadmatic entered the Spanish shipbuilding industry some time ago and was able to sign the first contract with ship design company **Ingenieria Y Servicios Tecnor**, situated in A Coruña. I.S. Tecnor purchased the modules for hull and p&id and is specialized in preliminary and basic design of various sea-going vessels for the domestic market.

Engineering company GPNXII, situated in Vigo is specialized in piping design and purchased Nupas-Cadmatic Piping modules for its daily engineering activities.

Two shipyards, **Astilleros de Sevilla** and **Astilleros Gondan**, situated in the north of Spain have purchased Nupas-Cadmatic software modules to support the building of several ship designs done with Nupas-Cadmatic software.

Netherlands

ICON Yachts uses the full Nupas-Cadmatic suite for their design and construction

Icon Yachts, a new builder of luxury yachts situated in Harlingen purchased the full package of Nupas-Cadmatic modules for the design and construction of their ICON super yacht series. (see article on page 8).

C-Job & Partners BV, situated in Hoofddorp, implemented both Hull and Piping modules and provides various engineering services to the shipbuilding industry.

Johnson Controls Systems & Service B.V. purchased the Piping modules and provides various design and engineering services for other Nupas-Cadmatic users.

The Dutch Ministry of Defence purchased eBrowser licenses to support the project management of their new navy building projects.

Some other clients that have chosen Nupas-Cadmatic include **Scheepsbouwkundig Ontwerp- en Adviesburo Kooiman B.V.** in Zwijndrecht, **Tedecon Engineering BV** in Dordrecht and **International Dredgers Heusden**, a member of IHC Merwede group.

Turkey

Çelikyat Shipyard builds megayachts in Kocaeli

One of the new clients in Turkey is **Çelikyat Shipyard**, situated in the Kocaeli free zone. It purchased the Piping software for piping and outfitting design of mega yachts. Çelikyat also builds mega yacht hulls and superstructures for sister shipyard Proteksan-Turquoise, also a Nupas-Cadmatic user situated in Istanbul.

Shipping company **Atasoy Shipping Ltd**, Istanbul purchased eBrowser licenses to support the design and construction of new ships.

Engineering company **Mavi Ege Mühendislik Ltd**, Istanbul, purchased a full set of Hull modules for various design and engineering projects for the domestic market.

United Kingdom

Dutch Orca Marine Design opened a Glascow office in Pentagon Business Centre on Washington street

Dutch design and engineering company **Orca Marine Design** extended their services by opening an office in Glasgow, UK. Orca Marine Design offers a wide variety of services with Nupas-Cadmatic Hull and Piping modules.

For the latest business news visit
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21 Century Shipbuilding making a name for itself in international shipbuilding

KOREAN SHIPYARD

21st Century Shipbuilding Co., Ltd (21CSB) is a medium-sized shipyard in Korea and the first shipyard in Korea to use Nupas-Cadmatic software for its design work. The company purchased the first software license in August 2007 and was contracted again in 2008 for further licenses when most of the yard's designers started using the software.

CSB has already delivered 45 vessels in a series of 13,000 ton deadweight chemical tankers on the so-called 13K project. Twenty more vessels in the series will be completed by the end of 2010. The 13K project has been extremely successful for the shipyard with shipowners impressed by the high quality on on-time delivery of the vessels. Nupas-Cadmatic was used for the first time at 21CSB on the 13K project. It was used for the engine room and main deck piping design and engine room steel outfitting design for production information. The next project to be designed with Nupas-Cadmatic software at 21CSB is a 34,000 ton class bulk carrier, which will be started at the end of 2009. The project was contracted with a consortium of Greek shipowners. A total of 12 carriers will be built in the series up to the end of 2011.

Nupas-Cadmatic brought in to cover for lack of experience

Nupas-Cadmatic's reseller in South Korea, MTI Corporation (MTI), provided 21CSB with the majority of the ship-design and engineering services required during the early stages of the shipyard's operation. At this time the yard had a very small design department, but has since increased its own design capacity significantly. The expansion was achieved by hiring a large number of new designers. Due to the strong demand for designers in Korea at the time, the yard was forced to hire many designers with little experience. The 13K vessels are being produced for many different ship-owners with different building specifications, which means that every project needs a different design. It is generally very difficult for less experienced designers to prepare production design on time in such cases with traditional design tools. The yard required a software package that could cover for the lack of experience of the designers.

Six month trial period

On the advice of MTI, 21CSB decided to trial Nupas-Cadmatic for a six month period

21st Century Shipbuilding utilizes Nupas-Cadmatic's capabilities in all phases of their design work

The 13K project has produced forty-five 13,000 ton deadweight chemical tankers with 20 more vessels to be completed

at the beginning of 2007. The trial proved a success and showed that Nupas-Cadmatic is a powerful design tool, especially for a series of ships such as the 13K chemical tankers.

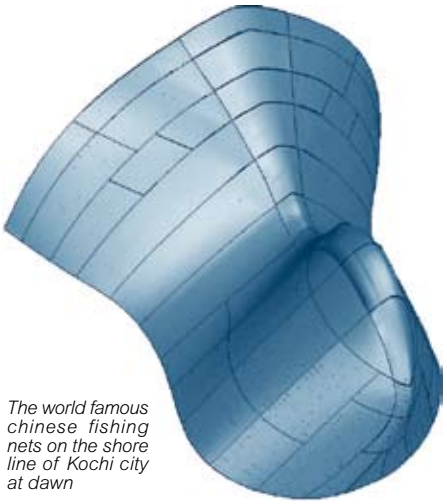
"Thanks to Nupas-Cadmatic we have removed a great number of mistakes from the previous design which was done in 2D. We have achieved this result by using designers with little experience," explains Mr. Jae-Ok Ryu, Director of the Machinery & Piping design department at 21CSB.

The ease with which designs can be updated and the strong management functions in Nupas-Cadmatic have been particularly appreciated at 21CSB. Piping design was also singled out as being straight forward, even for beginners, where human errors have been minimized by Nupas-Cadmatic's systematic database.

21C
21st Century Shipbuilding Co.,Ltd

21csb.com

The smart way forward in Indian shipbuilding



The world famous chinese fishing nets on the shore line of Kochi city at dawn

INDIAN SHIP DESIGNER

Smart Engineering and Design Solutions Ltd. (SEDS) was set up in 2007 by Mr Antony Prince with the mission "to be the best ship design company in the world by maintaining the highest level of integrity, commitment, and reliability". As part of its commitment to fulfilling its mission it implemented Nupas-Cadmatic software in 2007 for its ship design activities. The company is currently one of the largest users of Nupas-Cadmatic software in India.

The SEDS head office is located in Nassau in the Bahamas. It also has an office on the south-western coast of India in the Cochin Special Economic Zone in Kochi. In collaboration with its associated companies, Algoship Designers Ltd and G.T.R. Campbell Marine Consultants Ltd, it is able to provide a complete range of Naval Architectural and engineering services to meet the demands of the global marine industry. SEDS is currently developing eco-friendly designs of bulk carriers that meet all the latest regulations for environmental protection.

Cost versus utility tipped scale in Nupas-Cadmatic favour

Nupas-Cadmatic was selected by SEDS after detailed comparison with software packages that have similar capabilities. According to V.P. Kumar, General Manager at the SEDS Cochin office, cost versus utility and support, was a major factor in encouraging the company to select Nupas-Cadmatic. "We are hopeful that with the full cooperation and support of Nupas-Cadmatic, the team at SEDS will be able to create a winning solution for the Shipbuilding Industry in India. We feel that Nupas-Cadmatic considers us to be a development partner rather than a customer."

Working in 3D has significant benefits

Shell plates have traditionally been developed from 2D shell expansion drawings. This procedure however has several limitations and at SEDS shell plates are now iterated for optimum plate usage and developability with the 3D Nupas-Cadmatic shell application. SEDS also uses Nupas-Cadmatic for quick initial modelling, which enables earlier and more accurate prediction of the material lists. SEDS uses real-time models such as the Nupas-Cadmatic Hull Viewer and eBrowser for design review meetings and in the regularly held training sessions for developing young graduates.

Smart Engineering and Design Solutions Ltd. office in Kochi India

"Our production engineering process has been fine-tuned over the last two years. We are now considered to be one of the main players in this business area. Adopting new generation software like Nupas-Cadmatic, along with new methodologies, has been the key factor that has propelled SEDS to the next level in such a short time span."

Close contact with Nupas-Cadmatic support

"The Nupas-Cadmatic trainers from the Netherlands and Finland are regular visitors to our Indian office where they have offered us customized training sessions. Some of our engineers have also been sent to Europe for advanced training. As one of the prime customers, we keep constant contact with Nupas-Cadmatic's support departments and also send comments on the software from a usability perspective on a regular basis. Many of our creative solutions have already been implemented with the latest software release. Our close cooperation with the NCG support department enables us to understand and utilize the software better. SEDS took a bold decision to pioneer the use of Nupas-Cadmatic when others have stuck with traditional approaches. As the saying goes 'you can't find new oceans without having the courage to leave sight of the shore'."

SEDS

www.marinedesigners.com

Iconic creations causing a stir in mega yacht industry

ICON Yachts, Harlingen, the Netherlands

DUTCH YACHT BUILDER

Listed by the Financial Times in their 'boats that rock' special as one of three things not to miss at this year's Monaco Yacht Show, the ICON 62 from ICON Yachts (ICON) in the Netherlands, is set to make the biggest splash for a yacht builder's maiden vessel at the show for many years. The 62 meter steel hulled twin screw motor yacht hails from the picturesque old Dutch seaport of Harlingen, in the north of the country, where ICON have pioneered a fully modular construction process..

The picturesque old Dutch seaport of Harlingen, in the north of the Netherlands where ICON's iconic creations are born

The construction philosophy at ICON Yachts has been the creation of a standard technical platform for the hull, technical systems and spaces, as well as crew- and service areas to be used for a series of yachts of which the first platform suits yachts from approximately 62 – 73 metres. Components and fittings are pre-designed to the finest detail resulting in various modules that are pre-assembled, delivered just-in-time and installed on foundations that are already incorporated in the building kits for the primary steel structure. Provided with the standard technical platform and spaces, the clients can fashion a unique yacht; creating the exterior style and arranging the interior and living areas to suit their needs and tastes. The significant extent of pre-engineering enables ICON Yachts to offer its clients unique and special mega yachts that can be constructed in less than two years with significant cost savings.

ICON Technical Design & Engineering Office Manager, Stephan Vitus, has a long history in yacht building dating back to 1984. He joined ICON Yachts in February 2007 and leads a team of 14 engineers and draftsmen and women, who provide a central pool and control hub for all the engineering data exchange between ICON's co-makers and suppliers

Faster than starting from scratch

The Nupas-Cadmatic News team spoke to ICON Technical Design & Engineering Office Manager, Stephan Vitus, about the company's construction philosophy and their experiences of using Nupas-Cadmatic software.

"We like to have as much pre-engineered as possible in the basic platform. There are naturally small adjustments that need to be made to each ship for air conditioning and routing etc., but the main technical platform, especially in the steel sections up to the upper deck is maintained and from there onwards the aluminium or composite structure for the superstructure can be styled around that. The engineering is ready and available and the routing that is done in the design software can then go through the newly styled deck houses. This is a lot faster than starting from scratch. There are also platforms in development for yachts of larger sizes up to the 90m+ and 100m+ range."

Co-maker network ensures highest quality

Most of the design work at ICON is subcontracted to a network of subcontractors and co-makers. According to Stephan Vitus, the logic behind this approach is the desire to benefit from the extensive know-how of established businesses; thereby ensuring that the best

ICON 62 departs for sea trials

The pump room aboard the ICON 62

Tank space on the ICON 62

product possible is produced. It also enables ICON to flexibly pool resources from different sources, which provides control while avoiding the need to have a large team at ICON. (See article about ICON engine room co-maker Wolfard Wesels Werktuigbouw on pages 10-11).

Nupas-Cadmatic suits the ICON way of working

ICON and its network of co-makers use Nupas-Cadmatic software for the entire vessel's detailed and production design. "We looked into alternative software packages and compared them but we concluded that with the environment we work in and the different co-makers we work with that we did not want to stray in terms of file compatibility. We are also happy with the very good support we receive from Numeriek Centrum Groningen. The tools within the software, such as the eBrowser and the integration of the different segments in the package, are also exactly what we need."

eBrowser in daily use

"I use the eBrowser on a daily basis. The visual part gives you the best results, whether is it a collision check or resolving a specific detail, such as late additional requirements from classification or local surveyors. The first step for problem solving in the engineering disciplines throughout the group and our co-makers is normally done by means of the eBrowser. A particularly popular feature of the software is the instant output of the component summary with information of engineering status, quantities and the weight / centroid. These can be generated per section module or for specific systems only, or as a total overview, which provides many logistical benefits to other disciplines."

An icon in the making

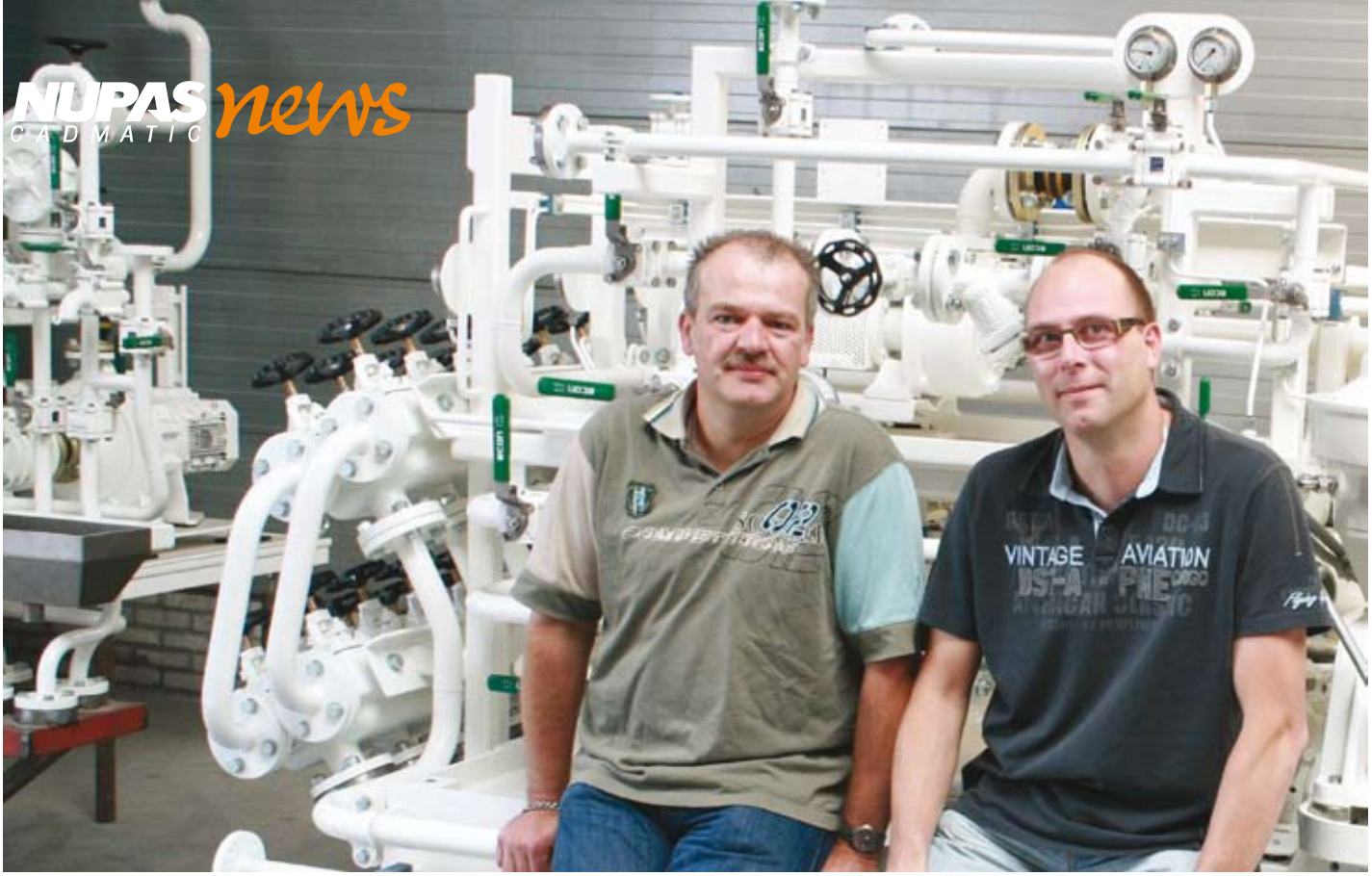
The original focus at ICON was a series of yachts of 62m but interest has already been expressed for yachts in the 90m+ category. It appears as if the sky is the limit insofar the size of mega yachts is concerned, but the 145m dry dock in Harlingen will set some limits for future ICON creations, for the time being that is. The unique ICON construction approach, commitment to quality and short delivery times among others are bound to make it a name to watch out for in the mega yacht world. Some industry commentators are already calling it the template for the future of yacht building.

ICON 62 Specifications

Length:	62,25 meter LOA	
Beam moulded:	11, 40 meter	
Gross Tonnage:	approx.	1250 tons
Speed:	Maximum speed	16 knots
	Cruising speed	14 knots

ICON YACHTS

www.iconyachts.eu



Willem Visscher (left) and Franklin Advocaat from WWW are experienced and satisfied users of Nupas-Cadmatic

Wolfard & Wessels Werktuigbouw an experienced Nupas-Cadmatic user

DUTCH ENGINEERING

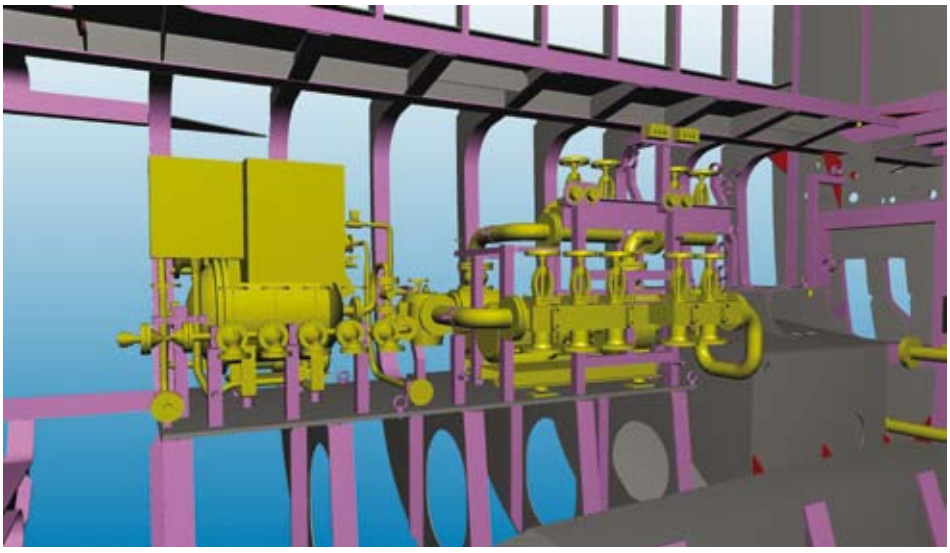
The town of Hoogezand in the northeast of the Netherlands is renowned for its shipbuilding industry and the sideways launching of vessels. The name of the town translates directly to 'high sand', so named as it was established on a higher sandy area near the peat lands through which the Winschoterdiep channel was dug in the early 17th century. Since March 2009 the town has also been home to a very experienced user of Nupas-Cadmatic software in Wolfard & Wessels Werktuigbouw bv (WWW).

WWW designs, engineers, produces and installs engine room installations, technical spaces and piping systems for sea-going vessels and mega yachts. The company is known for its expertise in producing unit prefabricated systems, which are installed in the vessel as a single unit. The company also does consulting and repair work (from renewing single pipes, up to projects that include lengthening or converting vessels) and is a renowned subcontractor for many Dutch shipyards. Its long history in the shipbuilding industry dates back to 1936 when it began operating as a ship repair yard in Vlissingen. In the mid seventies it became part of Central Industry Group and since 2001 has been operating under the WWW name. The company has grown rapidly over the last few years and recently expanded its production capacity more than fourfold by relocating from Foxhol to a larger workshop in Hoogezand. The workshop at the Hoogezand site covers 4000 m^2 enclosed compared to the former workshop of 800 m^2.

Plug and play system brings efficiency gains for customers

According to WWW Engineering Department Manager, Willem Visscher, the prefabricated engine room and piping system units produced by WWW can save their clients a lot of time and shorten their delivery schedules markedly.

"We engineer our projects in detail and work very closely with the yards to fit our piping



A WWW Nupas-Cadmatic engine room model

A WWW prefabricated water cooling unit ready for shipping to ICON Yachts where the plug and play unit will be installed

systems to the hull assembly process as efficiently as possible in order to reduce man hours and shorten outfitting time. For several of our clients, such as ICON Yachts for example, (see separate article on pages 8-9) the idea is really that our installation should be plug and play. They require the engine room to be painted, insulated with cabling etc. ready to go when it arrives. The units are brought in and are simply put in place in two weeks. Once the installation is done we attach a plug and press the start button and that's it."

Industry changes require increased engineering role for WWW

Traditionally WWW has been used by yards for production and assembly only, but the WWW engineering department's role has grown significantly in recent years to serve yards that have extensive projects and tight time schedules. Nupas-Cadmatic software is used for almost all engineering within WWW's scope of delivery.

"We needed to increase our engineering capacity to provide the best and most efficient service possible. In this respect it is of utmost importance for us to maintain very close contact between engineering, production, purchasing and the foreman at the yard's installation site to be able to react quickly to questions or any requests for changes. Now that we have increased our own engineering it allows us to react even faster. It is also important that the software tools we use facilitate this process. Some years ago the most important product of the engineering department was a white piece of paper with black stripes on it, nowadays it is much more important to get the logistics in order, bill of materials, assembly order, purchasing, etc.," explains Mr Visscher.

Distributed design is WWW's forté

"We are interestingly seeing that more yards are also buying Nupas-Cadmatic software for their own use. They do outfitting details, small foundations and some hull related piping. The yards are beginning to see the benefit of having everything in one space in a single 3D model. The majority of our customers use Nupas-Cadmatic now so we work with the customers at the same time in the same model with the Nupas-Cadmatic COS distributed design function. The distributed design system works marvellously and is easy to use. As we have many years' experience of using Nupas-Cadmatic, we often act as a master site in these distributed design projects. Franklin Advocaat is our Nupas-Cadmatic administrator and has many years' of experience of working with the software. He takes care of the day to day business and also gives the yards support when starting up with Nupas-Cadmatic. They require the software to be running as efficiently as possible and it is mandatory that all the administration tasks are performed perfectly. Due to our experience we can help our customers to start up with Nupas-Cadmatic so they will be up and running even more quickly and have a solid structure for current and future projects."

"That's my eBrowser"

"The Nupas-Cadmtic eBrowser has become quite indispensable for us and it would be hard to work without it nowadays. We use it for discussions with the owner and our foremen at the site as well as for engineering meetings. We also use it to determine assembly orders: the assembly orders are in a package that goes through work preparation, production and logistics, so the foremen get their piping in time and in the right order. Getting pipes in the right order saves a lot of time as you don't have to start looking for a pipe that is at the bottom of the pile. It also means that we don't need extensive 2D or 3D drawings, as the information is already contained in the eBrowser.

Our foremen find it a particularly useful tool during installation and all have licensed versions now, which means they can get information from the model on the spot. To give you an idea of how much they appreciate the tool…a couple of months ago a project manager wanted to use the licensed eBrowser version, so he asked our foreman for the key and license. The foreman replied that 'he would go home then for a couple of days and only return when he got the licensed version back again!'."

Reducing risk while maintaining capacity in uncertain times

POLISH SHIP DESIGNERS

Poland has become a Nupas-Cadmatic stronghold over the last 10 years. The software is recognized as a standard ship design tool and is used by a large amount of customers from small one man companies, up to large organizations such as Remontowa Group. Thanks to Nupas-Cadmatic's strategy of supporting technical universities, Polish companies that use Nupas-Cadmatic are able to recruit young engineers from the Gdañsk University of Technology. The global recession is also affecting Polish shipbuilding, where the government's decision to close the two biggest shipyards in Gdañskand Szczecin have been viewed with concern by the industry.

National training program for unemployed engineers

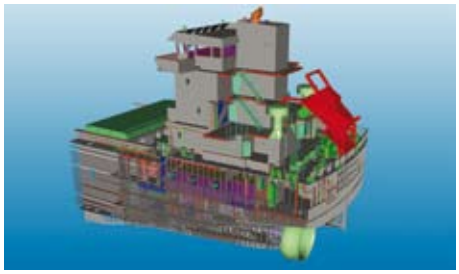
The Polish government is nevertheless also trying to improve the situation by increasing the competitiveness of Polish companies. During the second half of 2009 it sponsored a national training program for unemployed shipbuilding engineers, offering basic Nupas-Cadmatic user training. Despite this help in reducing personnel training costs, some companies are still struggling to survive. Others are taking steps to enter new markets, using new tools and working for new groups and types of customers.

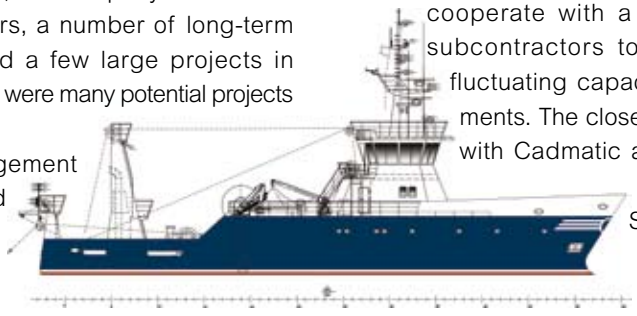
One company that has successfully implemented an intervention program to reduce the risk caused by the unstable market situation, is Elomatic Sp. z o.o. (Elomatic), formerly known as Cadmartech Sp. z o.o. Due to the fact that Elomatic has its own base of the customers and subcontractors and has marketed its services independently, the company management had to quickly react to the rapid market changes or face dire consequences.

Expansion via distributed design capabilities

By the time the first effects of the recession were being felt, the company had a team of 50 designers, a number of long-term customers and a few large projects in progress. There were many potential projects in the pipeline, but the management team expected some of these to be cancelled already in 2008. The budget for contracts declared by customers for finalization in 2009 and 2010 amounted to over 300 000 man hours. At the same time the cancellation risk was assessed as very high and the company decided not to hire additional designers to cope with the potential influx of design work. It was, instead, decided to acquire a Nupas-Cadmatic CoDesigner module and cooperate with a network of subcontractors to cope with fluctuating capacity requirements. The close connection with Cadmatic and support from PBSP SYSTEMS

Piotr Bilon, Managing Director, Elomatic Sp. z.o.o., Poland, discusses distributed design as a strategy to cope with the current volatile shipbuilding market





(Nupas-Cadmatic reseller in Poland) enabled Elomatic to flexibly control its design resources.

The idea was very simple; link all companies involved in design projects via a common design platform and guarantee proper information flow between the parties. The number of Nupas-Cadmatic users in Poland at the time was insufficient, so Elomatic decided to also cooperate with suitable partners outside Poland. Elomatic acted not only as a centre of information exchange, but also took care of the overall quality control and deliveries while actively participating in design work. Quality control was an important aspect, as some of the subcontracting companies were small and could not provide the necessary guarantees and assurances, especially with regards quality and on time delivery.

Substantial savings and flexibility

One of the most important aspects of the organization was maintaining Elomatic as the information flow hub, where steps were taken to avoid bottlenecks in the system.

Thanks to the Nupas-Cadmatic CoDesigner Elomatic Sp z o.o. was able to cooperate with a network of subcontractors to cope with fluctuating capacity requirements

Thanks to the fact that the CoDesigner was designed for globally distributed design, there were no coordination problems and the network was put into use in one week from signing the first contract. Deliveries were kept on schedule despite the large amounts of modifications required for changing classes and additional requirements. Elomatic's customers have been very satisfied with the detailed quality control performed by Elomatic employees in the distributed design projects and more orders have been placed with the design network. The positive feedback from customers and new orders are encouraging but the recession has nevertheless resulted in several cancellations. The CoDesigner functionality has provided substantial savings and flexibility in these times. In-house design resources have been kept lean in case of cancellations, while a large number of resources are kept in reserve to manage projects as they materialise. The few Elomatic employees that were supposed to be involved in the cancelled projects were immediately redeployed in company development programs. In addition to the above-mentioned advantages, the management team have also noted that their design services are more competitive when using Nupas-Cadmatic CoDesigner.

Savings invested in development programs

The savings generated by using CoDesigner have been invested in several important development programs. The company has created a conceptual design department and increased its marketing activities to ship owners. Elomatic is a good example of how a company can develop effective strategies for challenging times and flexibly evolve into a stronger player on the global shipbuilding market. Nupas-Cadmatic software is an important part of this strategy.

Piotr Bilon
Managing Director
Elomatic Sp. z o.o.

ELOMATIC
CONSULTING & ENGINEERING

www.elomatic.pl

NUPAS news
CADMATIC

NUPAS-CADMATIC Users' Meeting in Sopot

Poland in June 2010

The 2010 NUPAS-CADMATIC User's Meeting will be held on 1-2 June in Poland at the Sheraton Sopot Hotel, Conference Centre & Spa near the city of Gdansk. The resort is situated on the Baltic Sea coastline in northern Poland and is often called the summer capital of Poland.

The previous Nupas-Cadmatic Users' Meeting held in Naantali, Finland was a resounding and record breaking success. The meeting attracted 315 participants from 21 countries and 86 companies around the world.

We look forward to welcoming as many of our Nupas-Cadmatic user family to Sopot, the beautiful Pearl of the Baltic. More information about the user's meeting will soon be available on www.nupas-cadmatic.com

Exhibition info

NEVA 2009
Saint Petersburg, Russia
22-25 September 2009

SMM India 2009
Mumbai, India
12-14 November 2009

Marine Tek 2009
Surabaya, Indonesia
12-14 November 2009
Grand City Exhibition

Nupas-Cadmatic Seminar
Sasebo, Japan
20-21 November 2009

Sea Japan 2010
Tokyo, Japan
21-23 April 2010
Tokyo Big Sight Exhibition Center

SMM 2010
Hamburg, Germany
7-10 September 2010

SDARI
Shanghai Merchant Ship Design & Research Institute at forefront of ship design in China

Paul Brussee (far right) and Harry Wezeman (far left) from NCG provided Hull Administrator training to a group of SDARI trainees in the Netherlands

ACTIVITIES IN CHINA

Established in 1964, the Shanghai Merchant Ship Design & Research Institute (SDARI) is part of China State Shipbuilding Corporation (CSSC) and has nearly 530 employees. SDARI has extensive experience in designing various types of ships, e.g. bulkers, container ships, tankers, multi-purpose vessels, RoRo's, offshore engineering etc. It has accumulated more than 800 as-built designs in the past four decades with 129 vessels designed in 2008 alone. SDARI provides the entire range of services from the conceptual development to the workshop drawings and is the market leader in ship design and development in China. Since mid 2007 SDARI has been using Nupas-Cadmatic for detailed hull-, outfitting- and machinery design.

The Chinese shipbuilding industry has grown rapidly in recent times and with it SDARI has gained a good reputation in world shipping and shipbuilding. The company's orderbook contains various groundbreaking vessels such as the ChinMax- the world's largest ore carrier (400,000 DWT) and a 57,000 DWT bulk carrier – the first CSR bulk carrier in the world.

The 57,000 DWT bulk carrier is the first CSR bulk carrier in the world

SDARI increasing use of Nupas-Cadmatic

At the end of 2008 signed a new contract with Nupas-Cadmatic for a further 31 hull licenses and a further 34 piping, outfitting and machinery licenses, bringing the total amount of Nupas-Cadmatic licenses to 84.

Powerful functions and flexibility

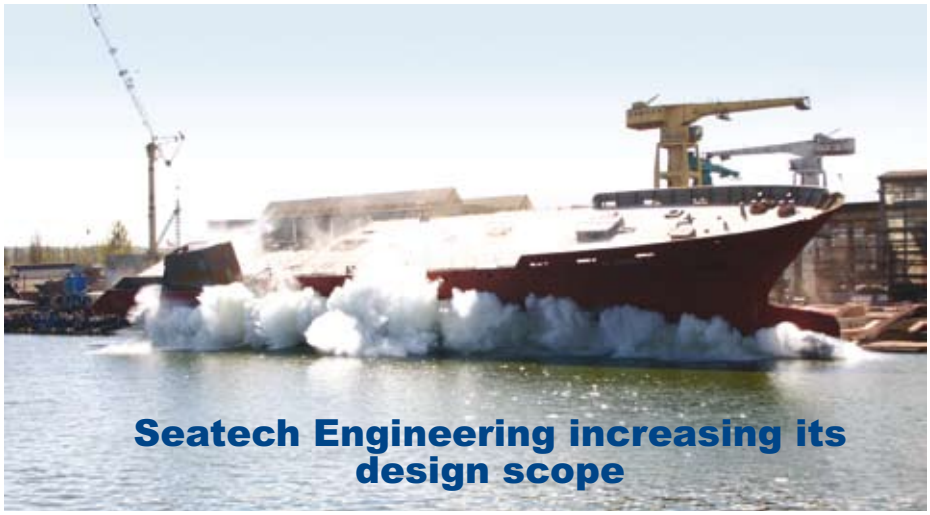
According Mr. Wan Shui Sheng, Deputy Director at SDARI, the company had long been searching for an appropriate new 3D ship design platform, which could involve all the ship design stages from the beginning to the end, i.e. from conceptual development to production design.

"NAPA software is one of the most popular and important development tools at the conceptual design stage in SDARI. As such we were very interested in the natural compatibility and relationship between Nupas-Cadmatic and NAPA. After a six month period of testing we were convinced of the synergy and close connection between the two software packages. Of great importance as well was Nupas-Cadmatic's user-friendly graphical user interface, powerful functions and good flexibility etc. We have also been impressed by Nupas-Cadmatic's kind and strong support. SDARI believes that the cooperation with Nupas-Cadmatic will continue to be a great success in the future."

Mr Matti Siltanen from Nupas-Cadmatic and Detail Design Manager Mr Li Lu with his SDARI trainees

SDARI

www.sdari.com.cn



Seatech Engineering increasing its design scope

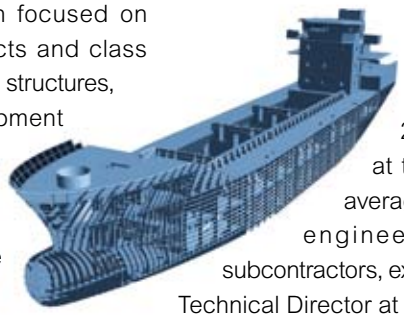
C270 - 73m deep freezing tuna vessel - launching in polish shipyard

POLISH SHIP DESIGNER

Seatech Engineering Ltd (Seatech) was established in 2003 in Gdañsk, Poland. It is located close to many shipyards and important research centres, which has aided the company to develop its ship design and engineering activities. It provides customers with detail and basic engineering, project co-ordination, 3D modelling, development and operation engineering, on-site support and general drafting for newbuildings, conversions and repairs. Since 2007 it has been a satisfied user of Nupas-Cadmatic software.

The Board of Seatech Engineering during onboard inspection on an inland tanker. From left: Chairman Gerard Jasinski and Technical Director Adam Slipy

In the early years Seatech focused on preparation of basic projects and class documentation, as well as hull structures, piping systems, deck equipment and shipyards' industrial systems, such as shiplifters or cranes. Cooperation was initially mainly focused on the French shipbuilding industry, especially Group Piriou (former Chantiers Piriou). During these early years Seatech completed about 25 projects of vessels between 20 to 170m. As a result of their brokering activities 14 of these vessels were built in Poland. Seatech was often asked if they could prepare workshop documentation in this period, even though it was not a target activity for them at first. To accommodate these requests a decision was made to invest in 3D design software.



Nupas-Cadmatic a natural choice

"For us the natural choice was Nupas-Cadmatic, because some of our designers had already used Nupas-Cadmatic before. That was a move in the right direction. From then on Seatech Engineering has been able to offer a complete range of project documentation: from ideas and basics, through class documentation with calculations, to workshop documentation. This created new opportunities for us. We more than doubled the number of our full time designers from 6 in the beginning of 2007, to 16 designers at the end of 2008. On average we also have 5-10 engineers that work as subcontractors, explains Mr Adam Slipy, Technical Director at Seatech.

Cooperation with wide range of companies

Seatech cooperates with different companies in their design work. The cooperation serves not only to solve complicated problems, but also to provide enhanced design capacity for larger projects.

"This is where the Nupas-Cadmatic system has a big advantage compared to standard solutions. The Nupas-Cadmatic online replica servers are particularly helpful in international contacts. On our advice our main customer purchased the Nupas-Cadmatic system last year. For our latest projects we had to subcontract some work to two other offices where we were working on the same area of the ship, but on different piping systems. In the past we had to wait for drawings from each subcontractor and afterwards merge them and solve the collision problems. Using on-line replicas, all the companies involved have information about actual state of area they worked on every 10 minutes. Our customer could also immediately check the solutions we adopted. It has saved us time and money."

Seatech looking at opportunities outside shipbuilding

Seatech's activities are not limited to the shipbuilding industry. It has recently started collaboration with companies from the petroleum industry and land planting. The experience they have gained in pipe design in small spaces on ships has been welcomed in these industries. The management team from Seatech is hopeful that shipbuilding and land engineering with in the not too distant future be equally balanced in their scope of activities.

Seatech's projects include many different and atypical commissions

Basic design projects:
- 160m inland/seagoing container open-decker form French owner CFT
- bullet proof 20m catamaran for Nigerian oil fields
- shiplifter with capacity of 1400t for shipyard Chantier Naval de l'Océan Indien

Class documentation and workshop projects for:
- trawlers 22-50m in length
- double ended ferry 78m
- tuna vessels from 36 to 90m in length, including very complicated ships with deep freezing system to -40°C
- dredger 85m in length
- corvette F 170 for French navy
- longliners 38-55m in length
- different types of offshore supply vessels from 25 to 69m
- tugs
- luxury mega-yachts 60-70m
- pontoons and barges

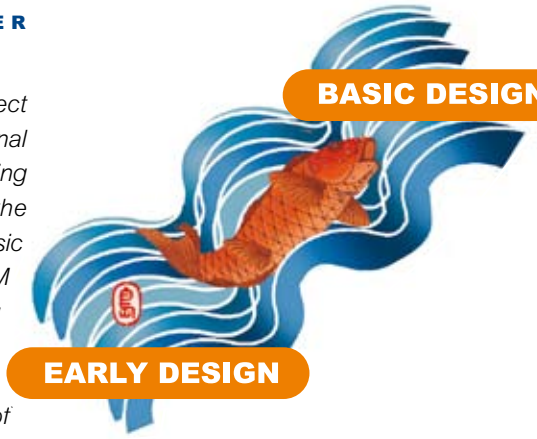
SEATECH ENGINEERING
www.seatech.com.pl

Oshima Shipbuilding cooperates with Nupas-Cadmatic to develop 3D "upstream" shipbuilding design system

JAPANESE SHIPBUILDER

Oshima Shipbuilding has launched a project to develop a sophisticated three-dimensional (3D) computer-aided "upstream" shipbuilding design system specifically geared for the primary process from basic planning to basic design. Two engineering firms, CIM Creation and SEA Systems, will be taking part in the project which will be funded by the Ship & Ocean Foundation (SOF). Oshima has also acquired the services of Nippon Yusen Kaisha (NYK) and Nippon Kaiji Kyokai (ClassNK) on the project. Ken Ito, an integrated ship design system specialist with CIM Creation, will serve as coordinator in the two-year project to be chaired by Hiroyuki Kajiwara, professor at Kyushu University.

In ship design drawing, much progress has so far been made in the application of 3D computer-aided design (CAD) systems for the so-called "downstream" design process from detailed design to production design. However, most "upstream" design systems made available so far are two-dimensional (2D). 2D basic designs however require specific professional knowledge to read, which means that inexperienced design engineers have to be trained in deciphering 2D drawings before they can start working.



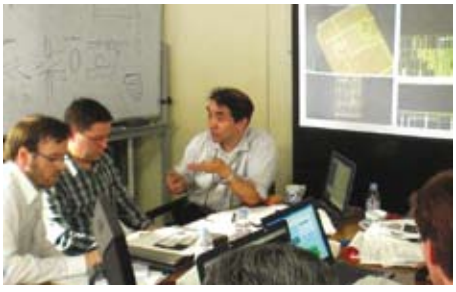
Design tools for a new generation

According to an Oshima official the project was started "to provide young people joining us in the 21st century with design tools of the 21st century". It aims to "step out of the present state where designing means 'drawing' and to develop a tool that allows the process of 'monozukuri (manufacturing)' to start from the design phase," he added. Specifically, what Oshima is aiming to develop is a system for designing a 3D product model at the basic planning stage. Such a model will help even laymen to have a clearer image of a ship upon its completion. It will make preliminary talks between a shipyard and a shipowner easier and more efficient at the early stage of design work. It may also allow design engineers and shipyard workers to check possible design flaws and discuss specifics about actual work programs.

The Oshima official said that the projected system will facilitate design work, improve work quality, enhance production efficiency and help younger design engineers upgrade their skills faster. "Moreover," he added, "it will allow us to quickly verify designs from various angles, giving birth to new ideas and creative designs."

System to be based on Nupas-Cadmatic

Oshima has decided to develop the new system on the basis of Nupas-Cadmatic, by jointly developing existing functionality and adding new functions. A special development project has been started between all parties to fulfill Oshima's



Nupas-Cadmatic and Oshima representatives discuss how to develop existing functionality and add new functions to meat Oshima's upstream needs

The Oshima Shipyard is situated on Kyushu, the westmost island of the four main Japanese isles

requirements for the new 3D Ship design software for the company. The Nupas-Cadmatic development team is working in close co-operation with Oshima to make the necessary specifications and to do joint development work. Nupas-Cadmatic software makes it possible for designers posted in various parts of the world to use the system when working on the same design.

Planned system suits Oshima business model

The planned 3D "upstream" system will suit Oshima's business model, which builds bulkers of various types in large numbers at the same yard rather than focusing on a single multipurpose model. Oshima also plans to use the system to deal with all other shipbuilding-related business in the future.

OSHIMA

www.osy.co.jp

Remarkable Vox Máxima proves that size counts

DUTCH DREDGE ENGINEERING

In April 2009 IHC Merwede launched the 'Vox Máxima', the largest trailing suction hopper dredger ever built in the Netherlands and the largest ship of any kind to come out of the country since 1990. Ninety percent of the vessel's engineering was completed with Nupas-Cadmatic software at the IHC Dredgers shipyard in Kinderdijk and throughout the network of IHC Merwede companies and subcontractors, which include IHC Dredgers, Pharos Engineering, Multi and IHC Merwede Design. IHC Dredgers in Kinderdijk has been using the complete suite of Nupas-Cadmatic since 1994 and have successfully built dozens of technical vessels with the software.

The launching of the Vox Máxima was conducted by her Royal Highness Princess Máxima and attended by several other high profile dignitaries. Final construction on the vessel is currently taking place and it is expected to be delivered at the end of 2009. Its first round of duty will be on the Maasvlakte 2 project in the Netherlands.

Larger than life

The massive dredger is 203 meters long and 31 meters wide and could barely fit in the building hall in Kinderkijk. During the launch there was only 25-40 cm slack between the door openings of the hall, the size of an A4 paper. The hold of the vessel has a capacity of 31.200 cubic meters and the two main engines weigh in at a hefty 220 tons each. The 29 Megawatts of power produced is enough to supply power to a city of 45,000.

According to Mr. Bas Noorland, Project Manager at IHC Dredgers, technically complicated vessels such as the Vox Máxima cannot be built without the use of advanced 3D modelling software. In almost every stage of the design process Nupas-Cadmatic is used. Even the detail design approval, which used to be paper based, is nowadays done with the eBrowser tool, which has simplified the communication process significantly.

On Friday 24 April 2009, H.R.H. Princess Máxima of the Netherlands officiated at the christening and launch of trailing suction hopper dredger Vox Máxima. The vessel was built for Van Oord at the IHC Merwede yard in Kinderdijk, the Netherlands

According to Project Manager, Bas Noorland, Nupas-Cadmatic is an essential tool in almost every stage of the design process

Specification of Vox Máxima

Length overall	203.00 m
Breadth	31.00 m
Hopper capacity	31.136 m^3
Speed loaded	17 kn
Propulsion	2 x 13.400 kW
Bow thruster	2 x 15.000 kW
Max. dredging depth	70 - 125 m
Suction pipes	Ø 1.400mm/Ø 1.300mm
Total power installed	31.272 kW

IHC MERWEDE

www.ihcmerwede.com

New Version 6

packed with new features and a brand new interface

After three major releases of Version 5, the time has come for the first release of the next generation of Nupas-Cadmatic software, Version 6. A major feature of the V6 software will be the gradual introduction of a new interface that will further ease work and bring new efficiencies throughout the design process. Version 6.0 contains a large number of new features and innovations. In this article we unveil a few of these novelties that can be expected when version 6.0 is released at the end of 2009.

New user interface in Version 6

The new user interface in V6 combines a modern look and feel with enhancements welcomed by both novice and experienced users. What catches the eye first is the new attractive visual style, but there is much more. The new interface will change the way the software is used and allow for faster and more efficient work. In Version 6 it will be available in Plant Modeller with other modules to follow in due course.

From the very beginning the interface development project team were guided by four leading principles: ***Usefulness, Ease of use, Efficiency and Familiarity.***

Tabs to switch between command bars

Usefulness has been enhanced by increased context awareness. The main characteristic of the new ribbon interface is the use of tabs to switch between command bars; it can in fact be thought of as an extension of the traditional toolbar interface. The tabs correspond to task areas and contain the necessary commands and options for each area. Particular attention has been paid to ensure the user's workflows are optimally supported.

Fewer and more powerful commands

The interface also strives to keep the design process as simple as possible. There are fewer and more powerful commands with clear and descriptive icons, all

The completely new and modern user interface in V6 has an Office 2007 look and feel with the familiar Nupas-Cadmatic logic

contained in the ribbon bar at the top of the screen. View management, for example, has been made easier with a new Views window that packs the functionality of a previous menu full of commands. The application settings can, likewise, now be found in a single place, organized logically.

Undo and Redo

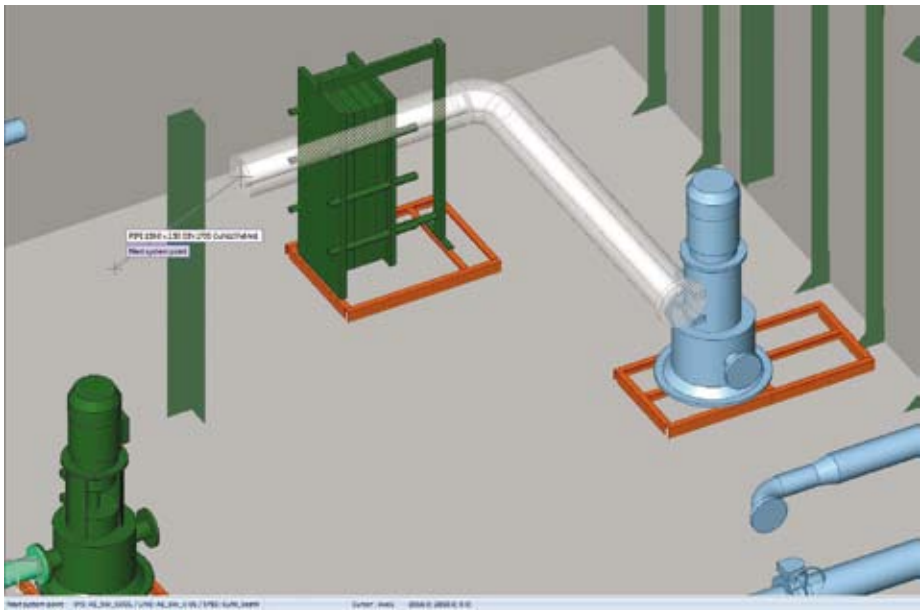
Undo and Redo commands are now available, eliminating the message boxes that used to require the user's confirmation and giving the user freedom to experiment with new designs safely. The heads-up information and prompt display reduces the need to follow the message log and allows the user to maintain focus on the working area while modelling.

Office 2007 look with Nupas-Cadmatic logic

Another feature of the interface is that it has a look and feel that users are familiar with in other applications. Nupas-Cadmatic's distinctive interface is the result of years of development close to users and is already considered very efficient and easy to use. We have recognized the need for standard interfaces, but do not want to abandon our innovative ways that make Nupas-Cadmatic stand out among its competitors. We also know that a 3D CAD program is not a word processor and care has been taken to use the standard interfaces in a way that is suitable to our domain. Our current principle is to use a standard look and feel with the ordinary interface components: windows, command buttons etc. and develop our own specialized interfaces in areas specific to 3D CAD and our applications. Version 6 combines the standard Office 2007 look and feel with the familiar Nupas-Cadmatic logic.

Advanced 3D interfaces

The new interface was also designed to be more efficient and this has been achieved in particular with advanced 3D interfaces. The X-ray feature, familiar from eBrowser, is now used in Plant Modeller and allows the user to see what is being modelled even when obscured by surrounding objects. This and the visualization of edges and seams, make shaded views much more useful than before. Views can be easily customized and can float freely which allows them to be dragged between multiple screens.



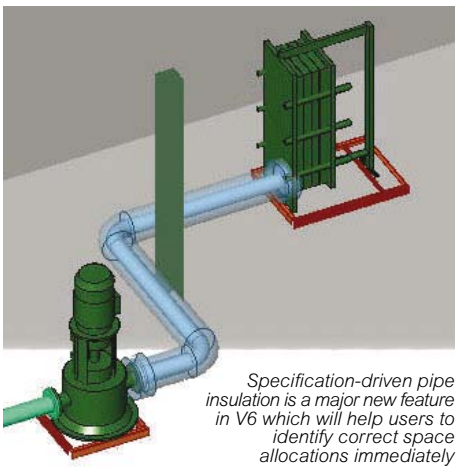
The popular Xray feature in eBrowser is now also available in Plant Modeller

As before, we are piloting some new interface techniques in eBrowser. In this version, it not only sports a new look but also has snapping, which allows quick and exact picking of model geometry points. The new user interface is much more than a makeover, but aims to provide the designer with a totally new and more efficient user experience. The user interface will remain at the forefront of development efforts at Nupas-Cadmatic and subsequent versions will not only bring these changes to all modules, but will contain new features and improvements as well.

PIPING & OUTFITTING

Insulation

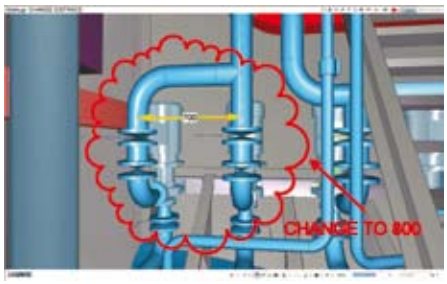
Version 6 brings with it the all new insulation feature that will ease the work of designers significantly. Pipe insulation is specification-driven which means that the different insulation specifications can already be defined in the diagram phase. When modelling the correct insulation and materials are automatically selected according to the specifications and requires no further input from the user. This saves time and also helps the user to identify the correct space allocations immediately and to notice possible collisions while modelling. Improvements have also been made to collision detection in version 6 with two types of collisions, hard and soft (insulation), now detected. Collision detection is more precise in V6 than in previous versions and user-friendly tools have been added to facilitate the acceptance or rejection of collisions.



Specification-driven pipe insulation is a major new feature in V6 which will help users to identify correct space allocations immediately

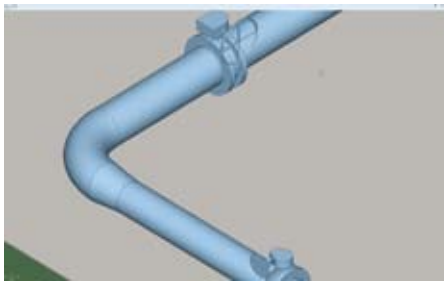
Mark-up feature and visible edges

In V6 the Nupas-Cadmatic eBrowser boasts a brand new mark-up function that is bound to make all eBrowser users sit



The brand new mark-up function allows users to make notes and leave instructions directly in eBrowser

up and take notice. The extremely useful mark-up tool allows the user to glue notes directly into the eBrowser that can then be sent immediately to another project partner for re-view or further commenting, without the need to send an explanatory email or make further phone calls. The user can flexibly point out components and areas by drawing arrows or encircling desired components to which the notes can be added. The eBrowser has always been an excellent project communication tool but with this new feature its reputation will be further enhanced. In V6 snapping to pipe centre lines and to edges has been introduced. This will allow the user to make measurements even faster than before, adding further power to the mark-up tool's punch.



In V6 edges are visible in both eBrowser and Plant Modeller

In V6 edges and corners are visible, providing the user with much clearer and more detailed information about the model. In shaded views and in some axonometric views visible edges identify the true position and composition of components that would not be discernable without this feature. This feature is available in both eBrowser and Plant Modeller in V6.

Initial Material Estimation

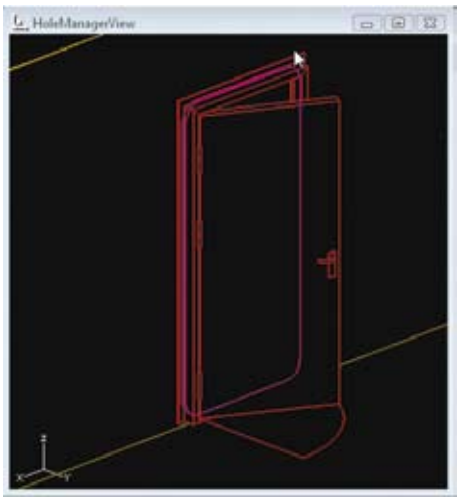
At Nupas-Cadmatic there has recently been an increased focus on developing tools to increase the scope of use of the software in the early design phases of ship design projects. The Initial Material Estimation (IME) tool in Nupas-Cadmatic Diagram is an example of such a development. Once the basic ship dimensions are available and the general process and component P&ID's created on top of the ship deck planes, the IME can be used to generate an estimated list of materials and components that will be required on the vessel. This is an extremely useful tool for rapidly estimating the materials cost of a vessel as early as the concept design phase.

Functional design template

The functional design template tool is an extremely useful tool for storing and reusing model objects or object sets as functional design templates for later use. The user simply pics piping elements, hvac, layouts or components from the 3D model and stores them in the library for later use. When the user works with a similar area or component set etc. at a later stage the functional design template can be inserted into the model after which the necessary adjustments are made. This saves a lot of time in the early design phases and enables design companies to make more efficient use of design materials from previously completed projects.

New hole management

In V6 the hole management tool has been completely reengineered. It comes with an improved and expanded toolset for managing holes in objects originating from Nupas-Cadmatic Hull and third-party software such as Napa Steel, Tekla etc. Doors and door holes are fully supported and a larger set of holes is also available. New hole types that are supported include super-elliptical holes, elliptical rectangular holes, asymmetrical manholes, rectangular holes with protruding rounded edges, and triangular holes. There are no limits to which model objects the tool can manage. When locating a component into the 3D model the user simply pics the steel structure and directs a hole request.



The hole management tool has been completely reengineered and sports more powerful functionality and a much larger hole set

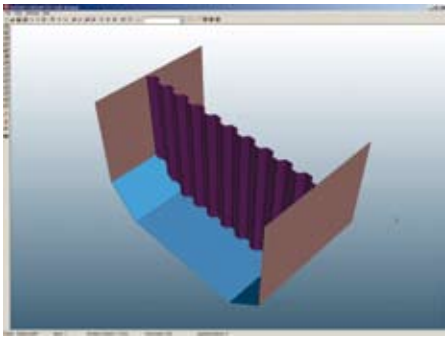
New advanced tutorial and help material

A new and extremely easy-to-use tutorial is now available for model building in Nupas-Cadmatic Piping. It requires the installation of an example project during Nupas-Cadmatic software installation. The tutorial is divided into three chapters and provides detailed instructions of the mandatory steps required to start modelling including creating an area for Plant Modeller and Pipe, defining Design Area Limits and setting views. This is followed by an introduction to routing fourteen pipelines with examples on how to navigate and create isometric drawings. The final chapter covers view management, hiding objects and clipping views. The tutorial has already proven to be a hit with its first users with praise coming in for the ease with which new designers can get started with the help of the tutorial.

ERP/Material management systems integrations

The Nupas-Cadmatic development team has several ongoing projects with current customers concerning ERP and materials management system (Mars) integration projects. Among these is STX Europe in Finland, internationally renowned for building the largest cruise ships in the world, for which a special integration between the Nupas-Cadmatic Diagram module and the yard's Logimatic Mars system has been developed. Nupas-Cadmatic is well placed to provide its customers with similar integrations to their ERP and Mars systems.

HULL



A bulkhead produced with the new corrugated bulkhead function

Big Corrugated Bulkheads

A new function has been developed to create big corrugated bulkheads. This new function replaces the existing function and makes full use of Nupas-Cadmatic's advanced structural topology features. Because the corrugation properties are specified as an attribute of the plate, modifications can be made easily and quickly for the whole bulkhead or one or more corrugations. Like any other structural part, the corrugated bulkhead function makes use of the software's standard copy functionality.

To create the production data for the corrugated bulkheads the engineer has to activate a special function which will determine the final geometry of the plates and production data.

Part labelling

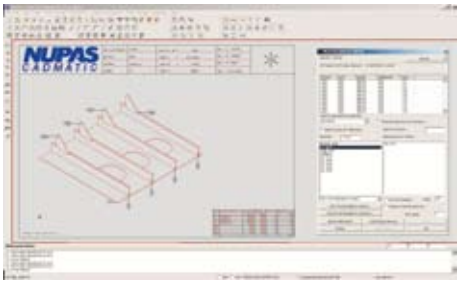
The new part label function which was introduced in version 5.3 has been given more flexibility, which aids the engineer in positioning part labels in an easier and user friendly way. It is now also possible to specify an initial part label indicator when creating parts. This indicator is placed automatically and searches for the first suitable empty spot on the drawing.

Flexibility in logistics

As the structural model database contains huge amounts of logistical data the demand for tools to manipulate this data or use it in PDM, MMS or ERP software packages has grown too. Every shipyard also has its own specific requirements concerning building sequences and part naming conventions. Two additional tools have been developed to comply with all these different requirements.

All logistical data can now be exported and imported in XML format. By specifying a special customisation layout the user determines in what order the data will be written and what the naming of the data fields will be. The user thus controls the format of the XML. The structure and the sequence of the data in the XML file will, however, be done according to the work breakdown structure of the hull model. The XML data can be used freely in for example 3rd party material management or product data management systems. It is also possible to import (modified) data in XML format according to the same customisation layout. To ensure that essential data can not be overwritten by the import function, the system administrator can specify which data fields are editable.

A new tool called 'Logistics Manager' has been added to the Tools menu. This tool gives the user the flexibility to manipulate any logistical data field by using selections and rules in a user-defined macro. A practical example of the 'Logistics Manager' in use is renaming assemblies, subassemblies, panels and parts of the work breakdown structure according to the shipyard's naming convention.



The new Production Information application

Production Information Application

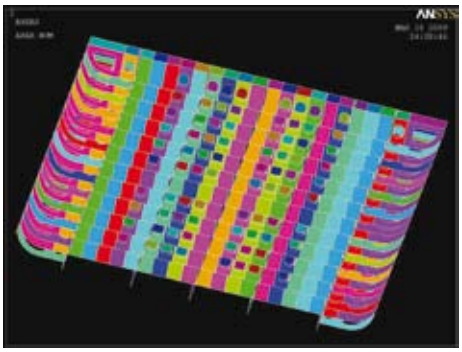
A new Production Information application will be introduced in Nupas-Cadmatic Hull Version 6.0. This application consists of all tools needed to create the entire set of production documentation and production data for each hull block. The purpose of this new application is to offer customers the possibility to split engineering and production tasks between different persons/locations without the risk that the original model data gets damaged or unintentionally modified.

System Management

The System Management application has a new menu structure and functions are re-arranged in such a way that they are easier to find. The help information on each function has also been re-structured and improved. The user is now also able to use different fonts when adding or modifying text.

Export to FEM

Version 6.0 will contain the first official release of the new Export to FEM application. A Finite Element Method model in Nupas-Cadmatic Hull consists of a collection of FEM objects created from selected construction parts from the Nupas-Cadmatic structural model database. The user selects the parts via the standard report generator or via the Hull Viewer and selects the output format, chooses the desired FEM



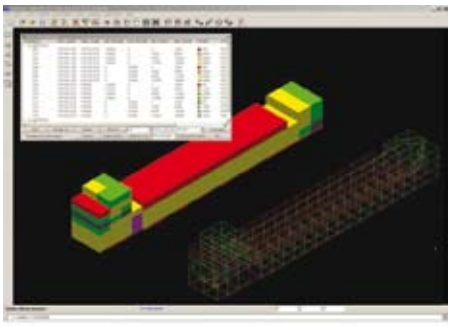
A Nupas-Cadmatic double bottom model imported via 'Export to FEM' in ANSYS

policy and applies several specific FEM export settings via a user interface. Before pressing the export button the user is able to preview the selected construction. Export to FEM is a separately licensed application.

FlexiWeight

FlexiWeight is a new comprehensive tool to assist the designer in the early design phase

to determine the most ideal block arrangement of the ship. With the use of FlexiWeight one can determine the block sizes and swiftly and accurately calculate the weights that fit the capacity and limitations of the building site.



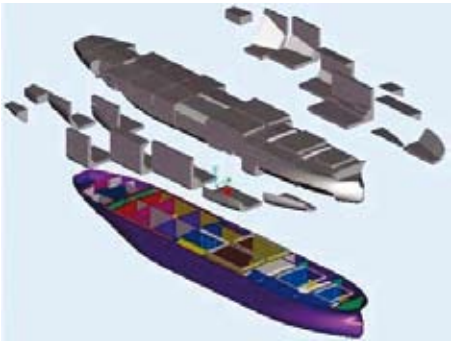
he designer can easily specify and modify the block boundaries and at any given moment the size, weight and centre of gravity of each block can be calculated and presented graphically or in tabular form. By using different colours for various weight ranges the designer sees at a glance whether the blocks are within the desired limits. It is possible to define several block arrangement scenarios and combine these with the most optimal block arrangement. Once the final block arrangement is determined the designer can automatically split the 3D model physically according to this arrangement into actual blocks.

Because FlexiWeight works like an 'overlay' on the actual 3D structural model, it can be used at any stage of the design process. The more complete the 3D model is the more accurate the block weight calculations will be, which gives the designer the possibility to revise the block boundaries at the earliest possible moment.

Advanced 3D Compartment Modelling

In Version 6 developments will be initiated concerning 3D compartment modelling. The aim of this new application is to quickly develop a 3D compartment model, optimize that model and most importantly: to provide accurate and essential design information to the various subsequent engineering stages.

As Nupas-Cadmatic already has very enhanced 3D structural modelling capabilities, the 3D compartment model



can be created in the same flexible manner as in basic and detail design. Making use of the existing Nupas-Cadmatic modelling functionalities offers a number of advantages:

- Modelling with the use of structural topology
- Calculation of volumes, sizes, weights, paint areas etc.
- Applying attributes, properties and rules (rule-based engineering)
- Generate 2D general arrangement drawings from the model
- Seamless connection to the detail design phase
- Export the 3D model to 3rd party software for various purposes

The approach of integrated compartment modelling will clearly differ from traditional methods of working where compartment modelling, general arrangement design and detail design are separate activities.

Project distribution with new HDX Technology

Nupas-Cadmatic Hull version 6.0 is equipped with Hull Data eXchanger technology (HDX). This new and advanced technology allows users to work together on projects at geographically independent locations and ensures optimal (improved) network performance. The shipyard, together with design offices, subcontractors and production site(s) all work together in a controlled distributed environment.

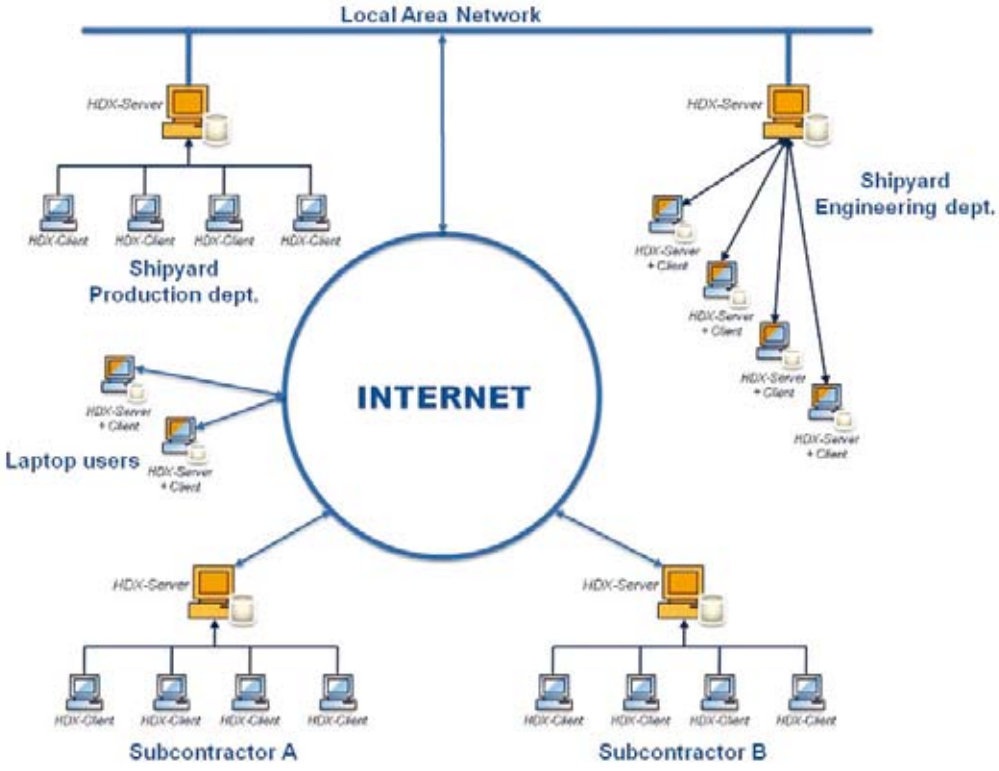
The HDX system is fully automatic and doesn't require intervention from the user. Besides being responsible for data distribution and data integrity, HDX takes care of project authorization and security, project backups and project monitoring.

HDX Pivot

The pivot in this new technology is the HDXServer which controls and manages all traffic between the project and users. The HDXServer communicates with so-called HDXClients but more importantly the HDXServer also communicates with other HDXServers (see figure below) in case more than one user location is involved. The synchronization of project data between several HDXServers is real-time and automatically activated when a user checks in or updates a hull block. The principle of the data synchronization is based on master and replicas and ensures that all HDXClients have the actual data.

HDX Authorization and Security

An important issue in automatic project distribution is authorization and security. HDX supports authorization at all levels. Users are classified into user groups, so-called profiles. Profiles are used to control the access to hull groups or blocks of individual users. In this way it is possible to grant a subcontractor access to the midship blocks and forbid the subcontractor



Project distribution with HDX technology

access to the engine room blocks. This also implies that in this example the engine room blocks data will not be synchronized with the HDXServer installed at the subcontractor's site and sensitive data is protected.

Another HDX feature is the possibility to control the access rights of software applications. For example, a profile 'CAM Engineers' is granted access to the Production Information application which means that these users can't use the modelling functions. Suppose they also have access to hull group 'Blocks ready for Production'. By combining various authorizations one can make sure that profile 'CAM Engineers' will only be able to process all blocks in hull group 'Blocks ready for Production' by using only the Production Information application without the possibility to modify the hull model data, securing the project data.

Basic authorizations like read-only and write access of hull groups or blocks is of course also available, especially for project managers, class societies and subcontractors who only need viewing or inspection access.

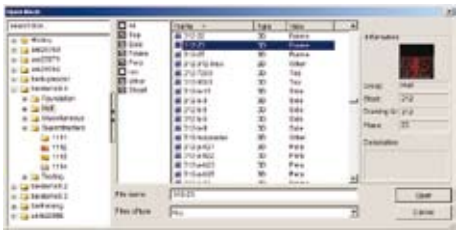
HDX Control Centre

To manage this new and advanced HDX system a new application HDX Control Centre has been developed. This application enables the system administrator to manage project data, other HDXServers, user groups and backup / restore of project data. The Control Centre is also used to monitor the HDX system and check the actual status and access of hull groups and blocks. The user interface is based on Outlook 2007 style, so it is easy to learn and operate.

In-house project distribution to secure performance

Because HDX is a transparent technology the customer can also apply HDX in a local area network or in a company wide network environment. Especially in a large multi-user environment where many users work on the same project the use of project distribution with HDX can be beneficial with respect to the overall performance. By setting up the system in such a way that each HDXClient acts as a HDXServer at the same time the overall load of the central data server and network will decrease and performance will increase. This is due to the fact that HDX uses an efficient method to transfer project data between the various HDXServers.

A new way of managing projects, blocks and drawings



The interaction between the Nupas-Cadmatic Hull modules and HDX manifests itself in version 6.0 in a completely new functionality for opening projects, blocks and drawings.

The new 'Open/Save' function

In the new well-organized panel the user now at a glance gets an overview of all projects, hull groups, blocks and drawings in a tree structure. Navigating through the projects is the same as in Windows Explorer but with some additional smart features:

Additional smart features:

- The 'History' branch provides the user fast access to recently opened projects, blocks and drawings.
- The accessibility and the state of the blocks are indicated by the icons used in the tree. The block state and the access rights are maintained in real-time by the HDX system.
- The drawings that meet the selected view type and file type are shown in a list. This list can be sorted and also shows some useful information about the drawings like view, type, description, etc. The user can filter the contents of the list by using the "Files of type" drop down list or by typing some search text including wildcards like question mark '?' or/and asterisk '*' in the "File name" input box.
- The user can easily delete selected drawing(s) in the list by pressing the 'Del' key or rename the selected drawing by pressing 'F2' key and entering the drawing's new name.
- On the right side of the panel the preview and some more relevant information about the selected drawing in the list is presented.

V6 add-on applications provide extra value

In addition to the myriad of new and exciting features in V6 there are also a number of add-on tools that have been developed.

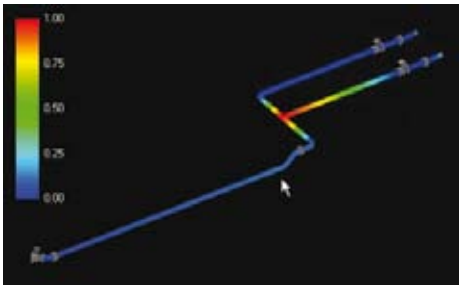
ePublisher software development kit

The ePublisher is a software development kit (SDK) that can be used to generate eBrowser compatible ebm files and Plant Modeller compatible 3DD files from third party software. The kit can be obtained free of charge from the Nupas-Cadmatic website The kit has already for example been used to create a module which converts SmartPlant Review models directly to eBrowser. The eBrowser model is identical to the SmartPlant Review model and includes all the same data and geometry etc.The eBrowser model file size is, however much lighter and easier to use.

Piping Report Generator

The Nupas-Cadmatic Piping Report Generator is an additional software tool for generating various reports directly in Microsoft Excel format. Templates and reports such as material lists, cutting lists, pipeline lists etc. are defined via a user-friendly interface and a wide variety of settings which are stored for each report type. Besides various 3D model data and attributes it is also possible to include COS specific properties in the reports. The latest version of the Report Generator includes an embedded link to eBrowser. By simply clicking objects in the report the 3D objects will be shown on the fly in eBrowser. The Nupas-Cadmatic Piping Report Generator is a separately licensed application.

Checkstress tool for Plant Modeller



SST's Checkstress tool interacts with Plant modeller and can calculate and visualise thermal and sustained stress ratios. By simply adding elements and running the Checkstress tool the user gets immediate and visually informative data on whether the stress test fails or passes and where possible overloaded areas are located.

Interface to CAEPIPE

A new interface from Nupas-Cadmatic is the PD2CAEPIPE interface to SST USA's CAEPIPE pipe stress analysis software.

BRAZILIAN DESIGNERS

STX Brazil Offshore S.A. (STX Brazil), formerly Aker Promar S.A., is the Brazilian market leader in specialised offshore support vessels. The company is part of STX Europe ASA, an internationally renowned supplier of cruise and offshore vessels.

The STX Brazil shipyard in Rio de Janeiro

STX Brazil has built and delivered about 35% of the PSV and AHTS fleet in Brazil. Its current order book comprises a pipe laying vessel, the first of this kind ever built in Brazil, a 142,20 m length offshore subsea construction vessel, a AHTS 145 t BP and two AHTS's with a bollard pull capacity of 300 t, that will be the largest and most powerful anchor handling vessels in Brazil.

STX Brazil the preferred partner for Brazilian offshore vessel operators

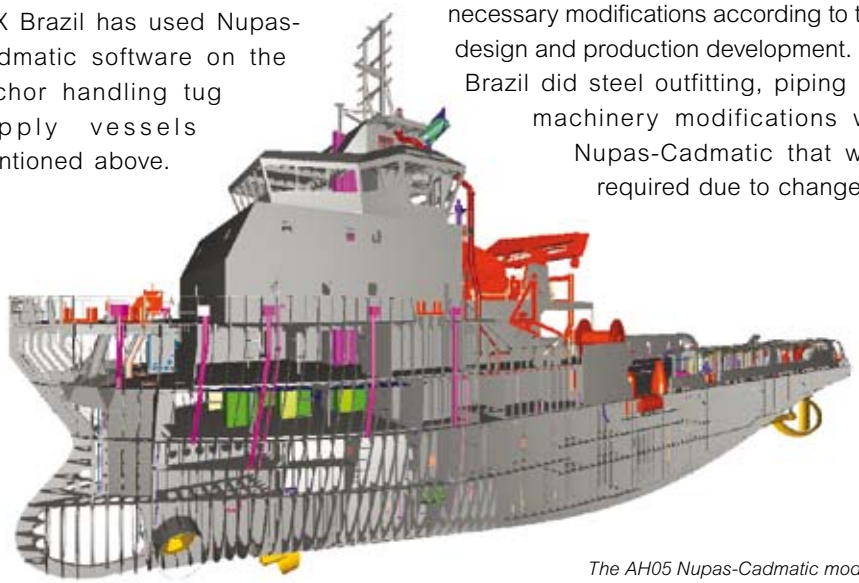
Major oil and gas discoveries of Brazilian coast

Recent announcements of major offshore oil and gas discoveries in Brazil have boosted demand for special purpose offshore support vessels. STX Brazil is well placed to continue being the preferred partner of Brazilian offshore vessel operators in the future.

Nupas-Cadmatic use increasing at STX Brazil

STX Brazil has used Nupas-Cadmatic software on the anchor handling tug supply vessels mentioned above.

The vessels are based on STX Europe's AH05 design. The design team at STX Brazil received the AH05 design database from Ship Design Group (SDG) in Romania, after which they updated and made the necessary modifications according to their design and production development. STX Brazil did steel outfitting, piping and machinery modifications with Nupas-Cadmatic that were required due to changes in equipment suppliers and specifications. They did not need to make any changes to the hull design of the AH05, but have been using the Nupas-Cadmatic Hull module for the new AHTS AH 12 design.



The AH05 Nupas-Cadmatic model

STX Brazil Design Manager, Sérgio Lamarca Leite (2nd from left) and his Nupas-Cadmatic outfitting team

STX Brazil Design Manager, Sérgio Lamarca Leite (2nd from left) and his Nupas-Cadmatic structure team

Easy to use

According to STX Brazil Design Manager, Sérgio Lamarca Leite, Nupas-Cadmatic is well suited to STX Brazil's design demands.

"Nupas-Cadmatic is perfect for our work and it is easy to use. In the shipbuilding industry Nupas-Cadmatic is an important productivity tool for design and production as we can visualise the ship and all sections in advance. Nowadays we can develop the ship design in two or three countries at the same time with Nupas-Cadmatic's distributed design function. Modelling with Nupas-Cadmatic is fast and easy…our design team has worked with Nupas-Cadmatic for the design of our current ships and have achieved good results because all the Nupas-Cadmatic software features are advantageous."

stx Europe

www.stxeurope.com

Resellers' News

New office in Istanbul for ARTI Engineering

Turkey – Turkish reseller ARTI Engineering moved to the 2nd floor of a brand new office building in Tuzla - Istanbul. The design & engineering company currently has a staff of 12 persons and provides various services from conceptual design up to production engineering for a wide variety of vessel types.

The updated company contact details can be found on the Sales and Support Centres page 8.

ARTI Engineering in Tuzla – Istanbul

PetroNED seminar for the Russian Nupas-Cadmatic users

Russia – In cooperation with our reseller PetroNED Ltd several activities have been developed in Russia. Among others a seminar in St. Petersburg was organized for existing users of the Nupas-Cadmatic software and for potential customers. One of the highlights of the day was a 3D modeling contest. The participant who did the fastest and complete modeling in a limited time won the award.

Nupas-Cadmatic will also participate in the NEVA 2009 exhibition (22-25 September), the most important shipbuilding exhibition in Russia.

The winners of the modeling contest

Nupas-Cadmatic extending influence in Vietnam

Despite the economic crisis and contrary to all expectations, Nupas-Cadmatic began to have a truly visible impact in Vietnam's ship design and shipbuilding sectors in 2008. All the major shipbuilding companies in Vietnam, which have purchased 3D Ship design software to improve their design end engineering, have started to use Nupas-Cadmatic software.

After cooperating successfully with reseller SSTI for some years, Nupas-Cadmatic signed an authorized dealer contract with Vinashin Shipbuilding Engineering J.S.C (VISEC) in 2008 with the core team inherited from SSTI. Visec is a subsidiary of the country's shipbuilding giant Vinashin.

PTSC Corporation's huge floating store offshore (FS05)

A significant new Nupas-Cadmatic customer in Vietnam is PTSC Mechanical & Construction Ltd. It is a leading engineering, fabrication, project management and marine installation contractor in Vietnam and a division of PTSC Corporation, a subsidiary of Vietnam National Oil & Gas Group (PetroVietnam). PetroVietnam is wholly owned by the government of Vietnam and is responsible for all oil and gas resources in the country.

Workshop design for Floating Store Offshore project with Nupas-Cadamtic

Visec also cooperated with PTSC Corporation on a 150.000 DWT Floating Store Offshore project (FSO5), which was the first offshore project in Vietnam for which Nupas-Cadmatic was used for workshop design. The US$110 million vessel was built in Namtrieu Shipyard close to Hai Phong and is used to store and export oil. It is currently being used off Vietnam's southern coast in the Bach Ho and Rong oilfields.

Terafulk – Indonesia "A Giant Leap of Transformation".

Terafulk designers at their computers

Terafulk Megantara Design (Terafulk) was established in 2005 and is one of the most advanced ship design companies in Indonesia. It has been a Nupas-Cadmatic sales and support centre in Indonesia since 2007. Over its four years of operation the office has supported Japanese shipyard Shin-Kurushima in their ship design department's projects. Terafulk's services range from the provision of ship design, ship structure optimization and finite element modelling analysis up to outputting production drawings.

At the beginning of June 2009, Terafulk took a giant leap of transformation from

being a ship design company to becoming a shipyard with its first ship that will be designed and constructed in Surabaya, Indonesia. The shipyard is projected to be fully operational by 2011.

According to Dr Kaharuddin Djenod, President Director of Terafulk, the current shipbuilding project will open an opportunity for Terafulk to expand its business competences. The Indonesian Government recently decreed a new cabotage regulation that requires all ships transporting goods between Indonesian ports to be Indonesian-flagged vessels. The regulation will be fully implemented by 2010 and is predicted to bring a wave of new shipbuilding orders, especially for Indonesian shipyards.

Since 2005 there has been an increasing trend in the Indonesian maritime industry to support local operators, which culminated in the issuing of the national flag cobotage decree. The first signs of its impact can already be seen in increased numbers of shipbuilding orders for Indonesian shipyards. Terafulk has taken advantage of the current trend by increasing their business scope towards shipyard development.

Terafulk intends to make Nupas-Cadmatic part of the new development project by sending a group of engineers for an advanced Nupas-Cadmatic software course in Finland in November 2009.

Maritime Associates is new Nupas-Cadmatic reseller in Singapore

Mr Nanda Kumar (middle)

Since October 2008 Nupas-Cadmatic's new reseller in Singapore for the Marine and Offshore Oil and Gas industry has been Maritime Associates Pte Ltd (mA). mA also has an office in Bangalore, India.

With a staff of 22 in Singapore, mA provides a full range of marine and offshore consultancy services, covering areas from project inception through to operations. mA has very good experience in basic design and detail engineering for chemical tankers, drill-ships, supply vessels, ferries, semi-submersibles, jack up rigs and engineering related FSO / FPSO conversions.

Singapore is an interesting market for Nupas-Cadmatic as it is one of the world's premier ship repair and conversion centers and a global leader in the building of jack-up rigs and the conversion of FPSO's and other specialized vessels. The Marine industry in Singapore generates an annual turnover of close to € 7 billion in and employs around 100 000 workers.

mA expanding engineering capabilities

According to mA's Managing Director, Nandakumar B. Nair, the cooperation with Nupas-Cadmatic started when the parties met for the first time at the Sea Japan exhibition in 2007. This meeting laid the foundation for future discussions and the eventual signing of a reseller contract.

In addition to being a reseller, mA has also purchased multiple licenses of Nupas-Cadmatic system and use the software right from the concept / basic design stages of the projects undertaken by them.

mA is currently expanding its engineering capabilities out of India where Nupas-Cadmatic is in active use for both hull and piping design at the company.

"For me the ease of use of Nupas-Cadmatic is its most important feature and selling point. This means that your training period and related costs are significantly reduced when taking in a new employee. This reduces the time required for implementing the system significantly, which adds to overall efficiency," explains Mr. Nair.

NEW NUPAS-CADMATIC CUSTOMERS:

Altintas Shipyard	Turkey
Astilleros de Sevilla	Spain
Astilleros Gondan S.A.	Spain
Atasoy Shipping Ltd.	Turkey
Brenn- und Verformtechnik Bremen GmbH	Germany
Cassens Werft GmbH	Germany
Celikyat Shipyard	Turkey
Chantier Piriou	France
CIM Creation	Japan
C-Job & Partners BV	The Netherlands
Dutch Ministry of Defence	The Netherlands
Elomatic d.o.o	Serbia
Enercon GmbH	Germany
Foreship Ltd.	Finland
GPNXII	Spain
Groot Ship Design Poland	Poland
Heishin Pump Works	Japan
IHC Beaver Dredgers	The Netherlands
I.S. Tecnor	Spain
Intermarine	Italy
International Dredgers Heusden	The Netherlands
Interschalt Maritime Systems AG	Germany
Ismotec GmbH	Germany
IV-Nevesbu BV	The Netherlands
IV-Oil & Gas, Papendrecht	The Netherlands
Johnson Controls Systems & Service B.V.	The Netherlands
Jongert Jachtwerf B.V.	The Netherlands
Knaack & Jahn Schiffbau GmbH	Germany
Lloyd Werft	Germany
Maritime Associates Pte Ltd.	Singapore
MAVI EGE Mühendislik Ltd.	Turkey
Miura Shipyard Co. Ltd.	Japan
Name Design	Turkey
Neptun Werft	Germany
Nobiskrug GmbH	Germany
NorCE Offshore Pte Ltd.	Singapore
NR Koeling BV	The Netherlands
Ocean 1	Norway
Onimichi Shipyard	Japan
Orca Marine Design	United Kingdom
Oshima Shipbuilding Co.	Ltd.Japan
Ostensjo Rederi	Norway
Polarcus DMCC	United Arab Emirates
Project Design & Management Services Ltd	United Kingdom
PTSC Mechanical & Construction	Vietnam
Sankei	Japan
Scheepsbouwkundig Ontwerp- en Adviesburo Kooiman B.V.	The Netherlands
Shanghai Merchant Ship Research & Design Institute (SDARI)	China
SMT GmbH & Co. KG	Germany
STX Brazil Offshore	Brazil
Tedecon Engineering BV	The Netherlands
Ulstein China	China
Van Noorloos Casco Bouw B.V.	The Netherlands
Vofatec Processinstallaties BV	The Netherlands
Volkswerft Stralsund GmbH	Germany
Yacht Teccon	Germany
Yano Ship Design Office	Japan
Zeta Yachts	United States

APPOINTMENTS:

Olav van der Akker
was appointed as Software Support Engineer, NCG Customer Support on 1.6.2009

Andreas Lundberg
was appointed as Software Developer, NCG Software Development on 3.8.2009

Antti Ålander
was appointed as Sales Engineer, Cadmatic Sales & Marketing on 16.6.2008

Roshansingh Navlur
was appointed as Customer Service Engineer, Cadmatic Customer Services on 25.11.2008

Peter Szokody
was appointed Customer Service Engineer, Cadmatic Hungary on 1.7.2008

Ari Laine
was appointed as Software Documentation Engineer, Cadmatic Software Development on 1.9.2008

Joakim Julin
was appointed as Software Engineer, Cadmatic Software Development on 12.5.2008

Tomi Helin
was appointed as Software Engineer, Cadmatic Software Development on 12.5.2008

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