

E-CAD integration reduces time to market by 80% for automation control specialist

27th May 2021

The time to market for automation system design and development has decreased by up to 80% for a control technology specialist following the introduction of a comprehensive electrical system design package. WSCAD's E-CAD software platform Suite X has delivered the result for automation system builder Bruckmann Steuerungstechnik GmbH (BSG), based in Uedem north of Düsseldorf, Germany. BSG needed a solution that would interface with its own in-house developed configuration software and an established ERP system to deliver an intuitive, easy to use design and specification tool.

BSG is a control technology integrator, automating systems for process and manufacturing industries from single machines to full production lines. Author of its own software suite, the capability of BSG's ONEsystems platform includes machine automation and control, data acquisition and vision across the automated operation, as well as software integration between ERP-level IT and real machine data. BSG demanded a CAD package which could manage the design of its automation integration projects, and crucially, it also had to integrate with ONEsystems and be fully interoperable. Aware of the track record in deploying time-saving CAD packages for industrial automation solutions, BSG engaged with WSCAD with the aim of developing a partnership to create optimum automation design and streamline the design and development process.

The key challenge for BSG is time to market. Whether a new project or retrofit, BSG's customers demand quick project delivery in order to optimise productivity. Integration with ONEsystems' ERP system would be vital in order to reduce time on data transfer, management and accuracy. ERP integration would also increase efficiency of the project planning and procurement processes.

A further aspect to achieve reduced time to market is consistent product standardisation and the re-use of pre-developed, effective solutions. Crucial to reducing project time at BSG is electrical engineering design, from the development of individual machines and circuit diagrams with wiring and distribution components, through to complete production plants and switchgear. As a result, the re-use and automation of electrical design would be a key factor in achieving rapid time to market.

WSCAD was able to fulfil BSG's requirements through deployment of its electrical CAD system Suite X. "It was important for us that the interface from the E-CAD supplier would be able to directly integrate with our ERP system, as well as enabling project replication to speed-up future projects," says Leendert van Straalen, Operations Manager at BSG.

"WSCAD was able to provide the features we needed to design individual machines through to complete greenfield site project development – and be able to re-use these effective designs again. With the Project Wizard within WSCAD Suite X we received exactly the interface with which we could dock our self-developed solution to our ERP system."

WSCAD Suite X's integration with BSG's ERP system means that projects which can be transferred directly are 80 to 90% faster to plan, according to BSG. Even projects which deviate from the standard design can be up to a third quicker in the

planning stage. Based on the customer's specification, the bill of materials is placed with the ERP system and all relevant component data is then transferred from BSG's ONEsystem software to WSCAD's Suite X, ready for design. Integration includes the transfer of part numbers and technical data between the ERP system and WSCAD Suite X, speeding the design process.

Thanks to WSCAD's basis of open integration, it can also communicate directly with other third-party ERP-related software, such as material suppliers. BSG uses WSCAD Suite X to communicate data to a supplier for the procurement of larger wire sets and bundles, making the process faster, more efficient, and more accurate. WSCAD Suite X's Project Wizard stores macros for various function requirements, such as circuit diagrams and cabinet wiring, and automates their use, able to follow pre-set specifications on deployment. It also generates electrical engineering documentation in a structured format, making service and maintenance faster and easier for BSG's customers.

"The Project Wizard puts everything together automatically. Once planned and saved in sets, the Project Wizard follows all company specifications when arranging the macros and their variants," says Leendert van Straalen, Operations Manager at BSG.

Using ERP-generated data combined with WSCAD's Cabinet Engineering Expert module, which is inclusive within the suite, BSG's designers can also quickly create cabinet wiring diagrams. Component selection is generated within BSG's software, then once transferred to WSCAD Suite X, detailed design adjustments can be made accordingly.

BSG's control programming is based on a Siemens platform, with control data also integrated with the WSCAD Suite. Programming configurations are recorded within

the CAD software and any changes are automatically updated. WSCAD Suite X can also reciprocally communicate any changes made within its designs back to the Siemens portal.

Similarly, WSCAD Suite X's integrated approach means that replacement of a component in one plan is automatically updated across associated plans. This also ensures consistency of engineering data, especially important for large-scale projects such as the design of a process plant. This capability has also resolved BSG's requirement to re-use plans, meaning that once a design has been created, regardless of project size, it can form the basis of a new project with only specific adaptations required. BSG has also reduced project time by relying on WSCAD's library, comprising over 1.4 million parts and including over 300 manufacturers, with 3D STEP drawings available.

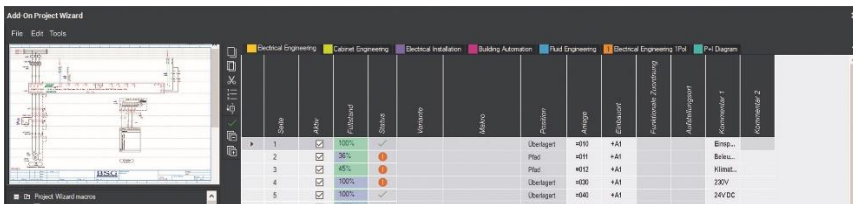
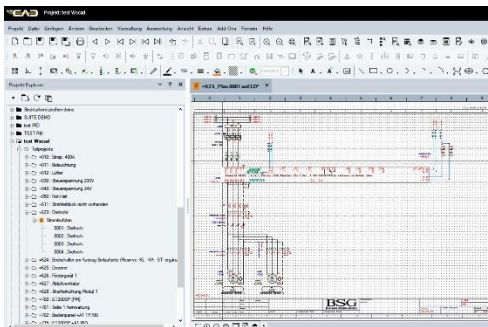
Speed of development also means a CAD platform which is intuitive to use. The interface has been developed in conjunction with the experiences of designers within industry, including only occasional E-CAD users, making it usable with a limited number of settings. It's also joined by the WSCAD Augmented Reality App, aimed at maintenance engineers, which visually identifies cabinet components and displays the relevant schematics and data, giving the engineers the data they need to quickly resolve any challenges.

“What we particularly like about WSCAD is the openness of the system and its logical structure. Handling the application is simple and easy to learn. Once understood, you can explore and use the many functions without further guidance. This is much more difficult with other systems,” says Leendert.

WSCAD Suite X increases the speed of time to market with its integration capabilities and intuitive design functionality. It also further reduces total cost with

additional modules included as standard and retails at a price point significantly lower than comparable solutions.

Image captions:



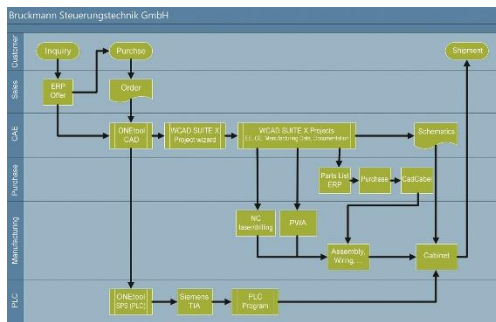


Image 1: WSCAD Suite X's integration with BSG's ERP system means that projects transferred directly are 80 to 90% faster to plan. [Source: WSCAD GmbH]

Image 2: The often multiple-field switch cabinets are constructed in-house at BSG, wired, tested and shipped worldwide. [Source: WSCAD GmbH]

Image 3: Cabinet layouts, including all the production data for labelling, wires and cabinet enclosures, are generated without any additional licence costs using the Cabinet Engineering Expert module and sent to the NC machines of renowned manufacturers. [Source:

Image 4: The items in the tender already contain all the information required for using the "ONEtool" configuration tool created by BSG itself and the "Project Wizard" add-on from the WSCAD SUITE to generate circuit diagrams and cabinet layouts including a complet

Image 5: Circuit diagrams, cabinet layouts and documentation are generated automatically in WSCAD via the "Project Wizard" add-on. Time savings of up to 30 per cent are achieved in respect of the engineering for individual plants and up to 90 per cent for standard

Image 6: At BSG, the whole electrical engineering design process using WSCAD, including switch cabinet configuration and production control, is controlled directly from the tender. [Source: WSCAD GmbH]

The image(s) distributed with this press release are for Editorial use only and are subject to copyright. The image(s) may only be used to accompany the press release mentioned here, no other use is permitted.

About WSCAD

WSCAD is part of the Buhl group with more than 700 employees. WSCAD has been developing electrical CAD solutions for three decades. Customers include medium-sized companies, international corporations and engineering service providers. More than 35,000 users rely on WSCAD as their electrical CAD solution. The software is based on one core platform that covers six engineering disciplines: Electrical Engineering, Cabinet Engineering, Piping and Instrumentation, Fluid Engineering, Building Automation and Electrical Installation. Any change made to a component in one discipline immediately reflects in all the other disciplines saving time and raising quality. WSCAD methodologies for standardization, reuse and automation significantly reduce engineering time from several weeks to just a few hours or even minutes. At the same time, these practices also ensure a much higher quality of work.

wscaduniverse.com is by far the largest electrical CAD data library on the market offering over 1.4 million parts from more than 370 manufacturers. It is the only digital library that supports WSCAD, EDZ, DWG and 3D CAD data. Use and data provisioning is free of charge for all users and manufacturers of components and equipment. WSCAD also offers apps for mobile devices: maintenance engineers and service personnel are now able to scan components within the control cabinet by using the WSCAD Cabinet AR App. This way they get instant access to the schematics, device tags, part data, 3D views and even the original data sheets from the manufacturers. Building engineers can use the Building AR App on site to scan rooms and then edit the scanned floor plans in WSCAD for building automation and electrical installation.

The WSCAD portfolio is completed by eleven seamlessly integrated service offerings from WSCAD Global Business Services. Engineering and migration check-ups, consulting and training, digitization of paper

documents and conversion of third-party electrical CAD formats quickly help to shorten engineering times and increase productivity.

Press contact:

WSCAD

Zishan Shaikh

Tel: +44 (0) 203 966 2446 Fax:

Web: <https://www.wscad.com/>

Email: zishan@wscad.com

Address: WSCAD GmbH Dieselstraße 4 85232
Bergkirchen Germany

Editorial contact:

DMA Europa Ltd.

Kiki Anderson

Tel: +44 (0)1905 917477 Fax:

Web: dmaeuropagroup.com

Email: kiki.anderson@dmaeuropa.com

Address: Progress House, Great Western Avenue,
Worcester, Worcestershire, WR5 1AQ, UK