



# **Innovations**

With the new WSCAD SUITE 2018, users benefit from many innovations and improvements for their electrical engineering design with WSCAD. In addition several performance improvements have been implemented across the entire software: from the start of the software and the various managers down to the printing. Especially for projects with several hundred pages, improvements were achieved by up to a factor of 10.

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# **Including expanded structure identifiers**

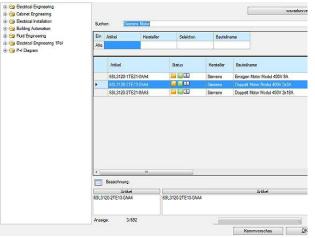
Structure products consistently from the outset by using parent structure identifiers with standards-compliant and cross-disciplinary structuring and save a lot of time when making changes.



- Extension of the structure identifiers by the aspects '=='
  (functional assignment) and '++' (installation site).
- Creation of substructures using "Dot" or "Slash" separators.
- Extension of projects by any number of substructures is now possible.
- Settings options for project structure identifiers: Locked, Descriptive, Available.
- Settings options for resource reference designations: Not available, Referencing, Referencing with inheritance, Descriptive, Descriptive with inheritance.
- The inheritance of structure identifiers can be changed later.
- The Advanced Project Structure (APS) AddOn has been completely integrated in the following WSCAD SUITE 2018 versions: Professional, Electrical, Fluid, Automation, Building, Installation, BAControl, BAProject, Project, Ultimate, Education Ultimate, CE Stand Alone, Fluid Stand Alone. Within the framework of the maintenance contract, existing customers of the above WSCAD Suites will receive the advanced structure identifiers free of charge.

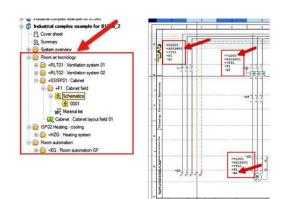
#### **Part search**

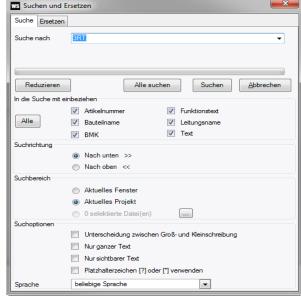
- The search function in the part database has been adapted to the search function of wscaduniverse.com in its function and "look & feel".
- The search refers to all (!) table columns, and the search input is taken over from the local part management to wscaduniverse.com.
- Searching within the part database is thus easier, and no "rethinking" between the two part databases is now necessary.
- The filter for the component category is now displayed clearly as a tree next to the search area.



The Search and Replace function has been improved.

 For example, you can now specifically search for modified structure identifiers and print only those pages.

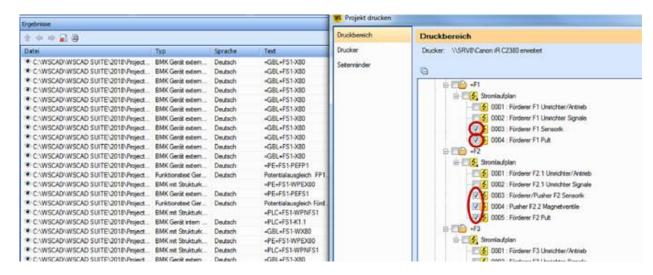


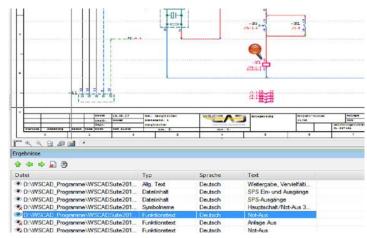




• In the Results dialog of the search function, there is a new "Print pages" symbol button with which the contents of the found documents can be printed.

• If you have searched for entries in components, you can jump to the relevant plan page by clicking on the corresponding line in the dialog. The affected object is automatically selected.



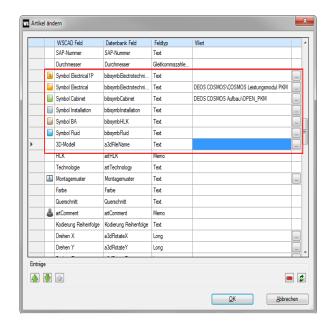


#### Part database

 The search functionality of the part management has been adapted to the search functionality of wscaduniverse.com.

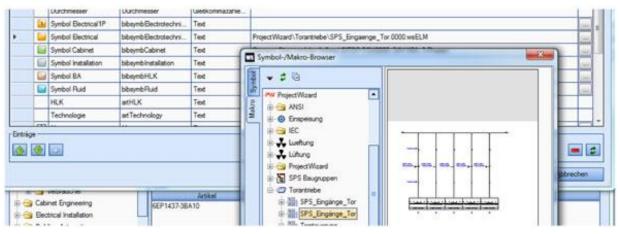


The WSCAD fields "Symbol Electrical1P", "Symbol Electrical", "Symbol Cabinet", "Symbol Installation", "Symbol BA" and "Symbol Fluid" can now be assigned not only symbols, but also macros via the Edit symbol button. For each WSCAD field, either a symbol or a macro can be assigned via the Symbol/Macro Browser. It is possible to assign a symbol to the WSCAD field "Symbol Electrical" and a macro to the WSCAD field "Symbol Cabinet".



# **Extension of the material database by macros**

In all disciplines, symbols or macros can be stored in a



single data record.

- Consequently, even more complex parts such as complete motor feeders can now be stored in their entirety.
- In conjunction with a combined part, this makes more effective, part-based work possible.
- The time saving for macro-based work is about 10% per project.



## **Cabinet Engineering: photorealistic 3D visualization and collision checks**

- The 3D view has been completely redesigned and is now based on 3D STEP data.
- Possible mechanical collisions are calculated and visualized. For example, between components in the control cabinet and the cabinet door
- The 3D properties of CE symbols can be changed via the part management, STEP files can be assigned.
- Automatic synchronization between 2D and 3D view: The usual way of working in 2D remains, the 3D view is synchronized automatically.
- The 3D views can be exported as html, IGES, STL, etc.
- The 3D functions require the Expert version of the CE module, found in WSCAD SUITE Electrical, Project, Ultimate and CE Stand Alone.



#### Further improvements:

- When drawing a polygon on a cabinet page via the context menu command "Polygon clipping", the dimensions are displayed during the drawing.
- Correct linking of terminals that are first placed in CE (switch cabinet construction) and subsequently in EE (schematics).

## **WSCAD AR App: Augmented Reality in the control cabinet**

- ... all your parts data and schematics when you need it, where you need it!
- Using a smartphone or a tablet service and maintenance personell can scan the QR code of a component in the
  control cabinet. This will give them immediate access to current schematics, including ref. names, data sheets
  from the manufacturer and part data in wscaduniverse.com.
- If the associated project is open, the metadata is read from the project and displayed for the component (function text, part number, manufacturer).
- Make all your schematics and documentation always available
- Quick and easy troubleshooting or component replacement - ideal for maintenance technicians and service technicians.
- The App optimizes your maintenance process by intelligently linking the schematics documents to data sheets from the manufacturer and information from <u>wscaduniverse.com</u>.
- The QR codes of the components are easily generated via the label output in WSCAD SUITE 2018.





The WSCAD AR App is a free component of the new WSCAD SUITE 2018. It can be downloaded from the Apple App Store and Google Play.

#### **Project Explorer: Save-As V2015 and V2017**

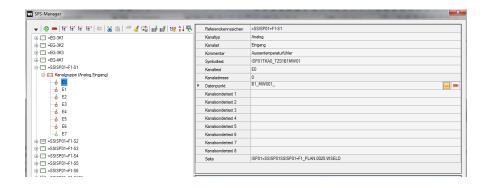
Are your customers still working with WSCAD SUITE 2015 or 2017? You can now work with WSCAD SUITE 2018
and save your projects in the WSCAD 2015 and 2017 formats. Your customers can thus open and edit the
projects you saved by this method with their earlier WSCAD 2015 and 2017 versions. And also with the WSCAD
SUITE 2018, of course.

## **Material Explorer**

- Combined parts and additional parts can be loaded and placed directly from the Material Explorer.
- Individual parts may have additional parts that used in other areas and disciplines. Even these parts can now be directly loaded, for example, cable (EE discipline) with screw connection (CE discipline).
- This makes it even easier for users to work on a part-oriented basis. A time saving per project of up to 20%.

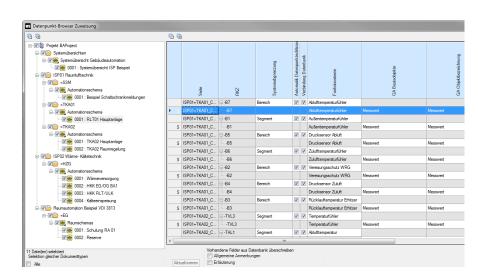
## **PLC management**

- Every PLC channel can be assigned to a data point from the Building Automation via the new "Data point" field.
- The corresponding data point is conveniently selected from the Data Point Browser



# **Terminal management**

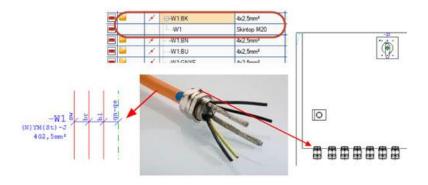
- In the Terminal Manager, the sorting of terminals via the "Mixed" tab has been corrected.
- In the Browser of the Terminal Manager, the context menu command "Switch terminal destination" now works even when several terminals are selected.





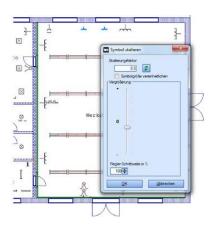
## **Plug management**

 When you create a new plug/socket without a part in the Plug Manager, the symbol name is entered correctly.



#### **Electrical Installation**

- When two symbols are connected with a cable in the installation plan, this
  cable is displayed in the properties dialog of the connected symbols in the
  menu item "Cable" under "Connected cables". The cable length resulting
  from the routing in the floor plan is directly entered in the Cable Manager.
- In the installation plan, two or more already placed and marked El symbols can be resized via "Edit | Scale | Scale symbol".
- Symbols that were accidentally drawn in different sizes can be matched.
- Various options are available for scaling.
- This minimizes the overhead when making changes. The earlier overhead to edit, delete and replace symbols individually – is no longer required.
- Time saving when frequent changes are involved: factor of 2 to 3.



## **Building Automation**

- Four new data point key plugins (BKS\_9 to BKS\_12) are available for specific data point generation.
- All BA data points are stored in the central database and are immediately available in all other disciplines.



- The data points of a component can be edited in any other discipline of the WSCAD SUITE.
- Data points can now be assigned directly to PLC channels and be made available across disciplines in the PLC Manager, for example.
- This helps to avoid errors in BA Project and produces a time savings of up to 20% per project.

#### **New license management**

In future, users will be able to manage their licenses conveniently via an online portal.



- Software licenses are the new WSCAD standard. A dongle is no longer necessary, but can be ordered for a fee.
- The WSCAD SUITE 2018 starts with a dialog, which shows all the licenses of the WSCAD software packages and their add-ons that were found in the network and on the PC. The used and available licenses are displayed. With the Codemeter dongle (silver dongle and mini dongle) and CodeMeterAct containers (software license), the individual add-ons can be activated and deactivated; however, this is not possible with WibuKey licenses (green dongle) for technology reasons. We advise all customers who no longer use the WSCAD SUITE 5.x to exchange their green dongle with the modern licensing technology, which also includes a borrowing function.
- In the new Start dialog you can use the link "WebDepot" to enter your 25-digit product key (ticket number) and activate the license. All new WSCAD SUITE licenses are created as UFC (Universal Firm Code) by default. We advise all customers who longer use the WSCAD SUITE 5.x to exchange their green dongle with the modern UFC licensing technology, which includes the borrowing function.
- With the main menu command "Help | Borrow license", you can borrow licenses from CodeMeter containers for a certain period of time (only possible with the new UFC licenses). This is particularly beneficial for network operation, for example, when visiting the construction site or the customer. For example, a license present in a network can be borrowed on a local PC. On the local PC/laptop, you can now use the license for the borrowed time, even without a network. The license can be subsequently returned thereafter or is returned automatically at the end of the borrowing period.

#### **Support ticket**

• Users can report errors directly from the WSCAD SUITE 2018 to WSCAD Support. A project backup can also be

submitted and this is something we strongly recommend since it helps identifying errors. Currently, there is an 8MB limit for data attachments. An upload option is integrated.



- Fast and easy: users do not have to collect all the information and
  - manually send it by e-mail to WSCAD. Using the main menu command "Help | Support Ticket", you can send the e-mail to WSCAD Support and attach a project backup.
- If your company has an own internal ticketing system, you can connect it to the WSCAD ticket system and streamline the entire process.

#### **Import functions**

 Importing projects, parts, data, and configuration settings from previous versions of WSCAD was combined in a wizard and simplified.

#### **Export functions**

- The DXF/DWG export now also supports symbol names with the special characters β, ä, ö and ü.
- The PDF export of EI pages with large embedded DWG files works correctly in the 32-bit and 64-bit versions.



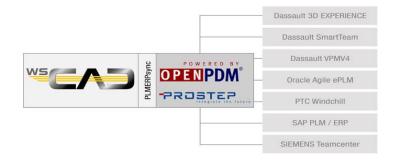
- For the PDF export, the PLC text is output correctly.
- Projects are published via the menu command "Export -> Augmented Reality App for Mobile Devices.

## 1-pin representation

- In the 1-pin representation, plugs and sockets can be placed, but no plug and socket contacts.
- In the single line schematic, cross-references to other disciplines are retained after placing elements.
- Plugs placed in the single line schematic can be correctly assigned to plugs from the EE discipline.

#### PLM / ERP

- The "PLMERPsync" interface is available as an add-on in the WSCAD SUITE 2018 and enables the integration of WSCAD data in the entire product creation process, i.e., with PLM and ERP systems.
- The coupling is done via OpenPDM from <u>PROSTEP</u>. Customers who use OpenPDM include: BMW, Bombardier, Continental, Nokia, PSA Peugeot Citroën, SAFRAN SNECMA, Tesla Motors. etc.



# Single Sign On (SSO)

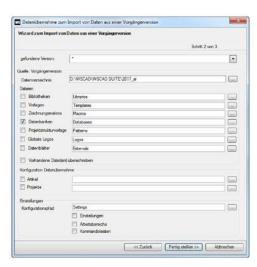
- Log in once and use all WSCAD services worldwide.
- Available with WSCAD SUITE 2018 Service Pack 1.





## Simplified data transfer from previous version (Save as ...)

- The data transfer, including log file, from earlier versions of WSCAD SUITE was simplified for all disciplines and automated.
- The previous function, which was split into three individual transfer points, was packed into a wizard.
- The central project database is automatically converted to the current version.
- For large amounts of data, the conversion can take place over night. The simpler data transfer (e.g., when transitioning) saves up to 30% of valuable development time.



## **General improvements**

- Performance improvements have been implemented across the entire software: from the startup behavior and the Manager down to the printed output. For projects with several hundred pages, improvements of up to a factor of 10 are achieved.
- Filtering by aspects within the label and list generation has been corrected.
- Cable destinations can also be exchanged for a cable between a coil and a standard component.
- The "Restore structure" function has been adapted for projects with several structured sections.
- Color codes with more than 2000 values are supported.
- In the exchange (and multiple exchange) of a symbol, the rotation variants of the new symbol can now also be selected. However, the new symbol must have the same symbol type as the old symbol.
- The descriptions of the variables for the Project Wizard can be created in multiple languages via the flag symbol button.