

Successful Projects, News, Events and much more

































That was the year 2017!

Dear CADENAS Customers and Partners.

Industry 4.0 and the digitalization of the producing industry is an important topic worldwide. The terms "Digital Revolution" "Industry 4.0" and "IoT" are widely talked about. As an innovative software manufacturer, we've been dealing with the topic since 2015 and are a part of the digital revolution with our intelligent software solutions. CADENAS is successfully headed in the direction of Industry 4.0 and the Internet of Things, together with our customers.

Industry 4.0 already begins in engineering and with the component manufacturers: the more the individual components should communicate with each other in the production process, the more intelligent the digital data must be. Keyword: digital twin. We develop innovative solutions for those who want to remain competitive and benefit from potential digital technology. With CADENAS software solutions, Industry 4.0 becomes child's play: Intelligent engineering data is transformed into a genuine digital twin, provided with additional information such as kinematics, physical limits, acceleration data, etc. by a CADENAS Electronic Product Catalog. This greatly shortens the time-to-market for designers and engineers. In connection with the Mechatronics Concept Designer (MCD) by Siemens PLM, for example, the virtual testing the start-up of technical systems beforehand and the detailed coordination of the control can be performed.

We are pioneers in other areas as well and are always breaking new ground. With the Strategic Parts Management PARTsolutions, we are successful in supporting creative engineering teams like the WARR Hyperloop team from Munich, which has already won the SpaceX Hyperloop Pod Competition twice. We are also active in Building Information Modeling (BIM). For instance, we reduce the workload considerably for planners and architects with the ground-breaking BIMcatalogs.net Content Plugin for all well-known CAD systems.

A flagship for the quality of our work is the number of all the CAD model downloads within a year's time on PARTcommunity and manufacturer portals. With a record of nearly 260 million downloads in the year 2017, PARTcommunity plays a key role for the 11th year now in providing engineers with 3D CAD models with CADENAS technology. Thus, the products of component manufacturers find their way as high-quality engineering data to the designs and parts lists of worldwide over 16 million engineers, purchasers, planners and architects.

We wish to thank our customers and partners for the successful cooperation and start full speed ahead into the new year 2018.



Jürgen Heimbach Dipl.-Ing. (FH) CEO CADENAS

CADENAS –
The Innovation Company

Yours







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Intelligent multi CAD engineering data powered by CADENAS is now accessible from anywhere in the world, 24 hours a day

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Component manufacturers fulfill changed needs of the architectural sector

Landscape architects and planners benefit from extensive information as well as easy 3D BIM CAD download







CADENAS presented its innovative software solutions for the Strategic Parts Management PARTsolutions as well as for the the Electronic Product Catalogs with eCATALOGsolutions technology at various events and trade fairs such as the PLM Europe, the Siemens PLM Connection and the PTC LiveWorx 2017. In the matter of Building Information Modeling (BIM), CADENAS provided insight into its multi CAD solutions and showed how consistent BIM communication between component manufacturers and users can be achieved.





















In addition, the respective branch offices on site offered the opportunity to learn more about the latest CADENAS developments such as at the CADENAS Solutions Forum Italiana in Bologna, where there were over 70 participants present from mechanical and plant engineering as well as electrical engineering.

18. Industry Forum - Looking back

15 & 16 March 2017

WWK Arena | Augsburg

At the 18th Industry Forum at the Augsburg WWK Arena in March, around 200 international participants from the mechanical, plant and electrical engineering sectors obtained information on Best Practice Lectures about innovations and trends on the topic of Strategic Parts Management as well as Electronic Product Catalogs and on BIM (Building Information Modeling).











In preparation for the traditional Irish St. Patrick's Day on 17 March, CADENAS showed how they celebrate on the green island during the evening event. This included: live Irish music, typical food and national drinks as well as an entertaining pub quiz. Billiard and other activities were on offer as well. Participants thus felt "Irish for one day"!







How does CADENAS offer support for Industry 4.0? Jürgen Heimbach answers in the ke-next

The journal for design and automation, together with CADENAS, published an edition all about the topic of 3D. Industry 4.0 also played a role. Mechanical engineering in Germany has already been transformed to a large extent. The stronger the networking of the real and digital world becomes, the more frequent individual components in the production process need to communicate with each other. CADENAS supports component manufacturers in creating intelligent 3D engineering data suitable for Industry 4.0: "It's an important step towards Industry 4.0," says Jürgen Heimbach, CEO of CADENAS in an ke-next interview.

Moreover, CADENAS often takes new paths in the marketing of components, thus the cover story came about in cooperation with a number of CADENAS customers.





Read the entire interview (German):

www.cadenas.de/files/cadenas/ images/news/News_2017/ 2017-03-28_ke-next_Interview.pdf





The year's CADENAS Summer Festival not only attracted with tasty BBQ and two beach volleyball fields for exciting tournaments, but also with thrills: Employees were also able to take part in rafting in the man-made Olympia white water route. The teams gave it their best and had a lot of fun!

2017









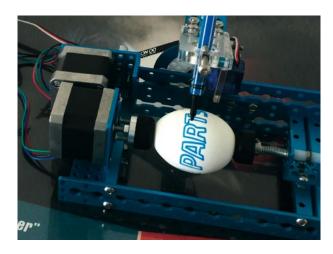
CADENAS donates to UNICEF Swimming

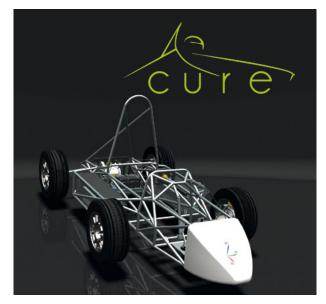
Under the motto "swimming, having fun and doing good", a benefit swimming event in favor of the UNICEF took place in the freshly rennovated Plärrer indoor pool in Augsburg on 16 September 2017. The Augsburg Swimming Club put on the event and collected donations for the UNICEF project "Water works". The participants had to find a sponsor beforehand who would then donate a certain amount per completed swimming lane — no limit was set for the donation amount and the number of lanes. Two girls took part for CADENAS, so that the Augsburg software manufacturer was able to provide 250 euros. A total of 10,000 euros was raised by the benefit swimming event.



The Easter Bunny gets some support

Samuel and Mehmet, pupils of the Jakob Fugger secondary school in Augsburg, visited CADENAS to test the waters of practical experience. They devoted a week's time to a programmable robot that painted eggs on its own. The mEggbot by XY Plotter holds the boiled egg as well as a crayon. An SGV file is uploaded via the mDraw program, e.g. a logo, lettering or other images. These are then transferred onto the egg automatically.







Mannheim student team CURE

Clean car driving with green electricity from the socket: In the future, a sustainable and climate-friendly traffic system will be created with the help of electromobility, according to the vision. So far, reality looks different: Only 0.07% of the cars registered in Germany at the beginning of 2017 were powered by an electric motor.

CADENAS makes a contribution for the development of electromobility by sponsoring the Formula Student Team CURE of the Dual College Baden-Wuerttemberg (DHBW) in Mannheim. The Strategic Parts Management PARTsolution has been available to the CURE Team since 2017 in supporting the design of the race car. CURE is the abbreviations for: Cooperative University Racecar Engineering.

The Augsburg software manufacturer CADENAS puts great emphasis on sport and the promoting of young talent. And so all the U7 soccer team members of the TSV Welden, near Augsburg, enjoy their new training jackets from CADENAS. The jackets come in the club's color of red and with the lettering BIMcatalogs.net, the CADENAS platform for 3D BIM CAD models for architects, planners and civil engineers.

"Anyone can sponsor the big soccer teams like FC Augsburg or FC Bayern Munich – we at CADENAS are taking care of the young talent. Those are the Altintops and Messis of tomorrow", says Jürgen Heimbach, CEO of CADENAS.

Young soccer players in Welden



Engineering Newcomer 2017



The Engineering Newcomer competition was thrilling until the last second

For the fourth time now, pupils and students from technical colleges, universities and other educational facilities had the opportunity to submit their design ideas in order to compete. Among other things, entire college classes from Germany, Austria as well as abroad in Europe and beyond took part in this year's Engineering Newcomer Challenge. 31 teams and individuals participated this year in the popular design competition sponsored by CADENAS, norelem, the Bundesarbeitskreis Fachschule für Technik and Solidpro. During the award ceremony on 11 October at the Motek exhibition in Stuttgart, the norelem fair stand was bursting at the seams: Numerous visitors consisting of participants of the challenge and the winners with representatives from their education institutions, as well as the jury members, gathered to find out who took which place.



I. Place

Ist place went to Tim Schobel from the University of Stuttgart. He developed a drive unit with freewheel function for walkers for walking downhill and uses its own drive for uphill. The jury rewarded the idea with 2,000 euro for the student and the same for his university.



2. Place

The class TM2C from the Munich Technical College enjoyed 2nd place this year. The Industry 4.0 compliant production line for control and automation technology is a development of the existing classroom, which was not big enough. The class TM2C and their school each received 1,000-euro prize money.



3. Place

Sebastian Benedikt, Pierre Breitwieser and Matthias Henkel of the Technical College of Allgäu were able to convince the jury with the Twinwheeler – a roller with petrol or electric motor based on an aero wheel and a monowheel. The third place winners and their technical college were awarded 500 euro each for their project.

German Standard Parts Award 2017 (Deutscher Normteile Award)





The most efficient design wins the German Standard Parts Award hands down

The jury of the German Standard Parts Award (Deutscher Normteile Award) 2017 awarded the best and most efficient contributions with the most standard parts at the Motek trade fair in Stuttgart. The awards were presented by the promoters Axel Weber, marketing management, and Thilo Hofmann, development technician, at Otto Ganter. Also by Michael Kleine, editor of the :K Magazine and Jürgen Heimbach, CEO of CADENAS. The goal of the competition is to raise the awareness of engineers for cost-saving product development through the increased use of standard parts. "The advantage of using standard parts is so that engineers can focus entirely on creative work, since standard parts are externally available and are cheaper than the new designing of parts," sums up Jürgen Heimbach.



1. Place

First place and prize money of 2,500 euros went to Jakob Prechtl. He developed a mobile operation microscope made for use in developing countries. It weights only 12 kg and is easy to transport and to set up. More than 80% of standard parts ensure that the development is cost-effective and the spare parts are easy to obtain.



2. Place

Manuel Bauer, research associate at the Institute for Drive Technology of the Aalen College, won second place and 1,000 euros with his tandem recubent bicycle and the consistent use of standard parts from the areas of bicycle and industry. The share of standard parts in his design is nearly 89%.

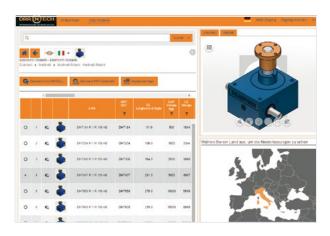


3. Place

Andreas Klassen was awarded third place and 500 euros: He convinced the jury with his CNC machine for DIY enthusiasts. The design is cost-efficient with a share of nearly 79% standard parts. In addition, components can take over several tasks, without the necessity of adding or installing new parts.



Italy | CADENAS Italiana S.r.l.



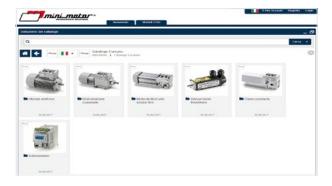
>>> https://draintech.partcommunity.com

Draintech



The Bologna-based company that manufactures gears and components for mechanical transmissions has

recognized that the necessary 3D CAD models of the products must be made available online, so that customers can take these into account in their design. Therefore, customers have access to a configurator for screw jacks on the Draintech PARTcommunity Portal.



>>> https://minimotor.partcommunity.com/

Mini Motor

Mini Motor offers 3D CAD models of its entire product catalog, including motors, geared motors, inverters and servomotors, based on eCATALOGsolutions technology, for download in more than 100 native formats, meeting all market requirements. The service is seamlessly integrated on the Mini Motor website thanks to the PARTcommunity embedded solution and is available free of charge.

Japan | CADENAS WEB2CAD INC.





>>> www.kggear.co.jp

KYOUIKU GEAR MFG

KYOUIKU GEAR MFG, which already distributes data with PARTcommunity, has incorporated its own parts selection system on their website with the support of CADENAS. This system was realized by incorporating PARTcommunity into the website and creating their own PDF data sheet. The parts selection page was also produced by CADENAS. This enabled them to deliver multi-format CAD data and their own PDF data sheet on their website.

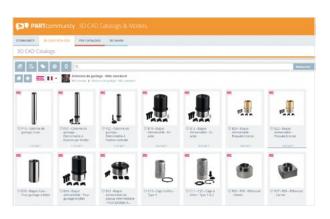


>>> www.yuken.co.jp

YUKEN KOGYO

YUKEN KOGYO, one of Japanese leading hydraulic manufacturers, started data distribution at CADENAS. The data of their hydraulic cylinder products were created using CADENAS's configurator and parametric technology. In addition, CADENAS produces their own PDF data sheet and delivers it along with CAD data. They are planning to expand data distribution to other products.

France | CADENAS France SARL



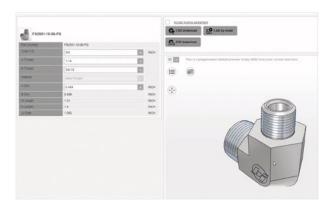
MDL Europe

MDL Europe, a supplier of die sets and components, machined plates, punches, dies, retainers, etc has chosen CADENAS

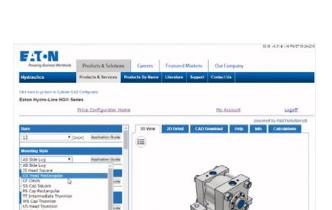
for publishing 3D CAD models of their products. Customers are delighted by the die sets configurator and the online 3D catalog. MDL Europe benefits from contacts generated by the 3D catalog, seen as a real marketing and sales tool.



USA | CADENAS PARTsolutions LLC



>>> www.brennaninc.com



>>> www.eaton.com

Brennan Industries

Brennan Industries published a new CADENAS Electronic Product Catalog, thus making precise 3D CAD engineering data available. Engineers can download digital CAD models in the respective native format, including 3D PDF data sheets. With the change to eCATALOGsolutions technology, Brennen Industries now offers greater format variety and simplifies product selection. Brennan sees this user-friendly design tool as a key element of their new responsive website.

Eaton

The company for power management extended its CADENAS interactive product configurator with 3D CAD models with large tie rods and rolling mill cylinders. This means an important step for Eaton customers towards EoDB or "ease of doing business". The previous request process for 3D CAD models took a long time. Customers can now configure their own parts specifically for their projects and download directly, and so keep within their own timetable.



Croatia | CADENAS Services d.o.o



>>> www.cadenas.de/office-locations

CADENAS Croatia

The CADENAS branch office in Croatia has celebrated its 17th anniversary this year. Ladislav Antić opened a CADENAS representative office on 16 October 2000. With Croatia's EU accession in 2013, it became a limited company. The employees there are in charge of the 3D modelling of 700 product catalogs as well as the creation and implementation of high-quality engineering data, etc. Many thanks to the colleagues in Slavonski Brod and looking forward to further very good cooperation!

Great Britain | CADENAS Solutions UK





>>> www.uhvdesign.com

UHV Design

UHV Design develops and produces high as well as ultrahigh vacuum manipulation devices and offers specific solutions and standard products to trendsetting scientific as well as technical institutes. Thanks to an Electronic Product Catalog, an online product configurator and integrated 3D dimensioning, customers can configure and download product information in over 100 native CAD formats. This resulted in 15,000 CAD downloads within the first year.



>>> http://bfpa.partcommunity.com

British Fluid Power Association (BFPA)



The British Fluid Power Association (BFPA), a professional association that represents the

interests of the producers and suppliers of hydraulic and pneumatic systems in the United Kingdom, enters a partnership with CADENAS and integrates the 3D CAD models download portal PARTcommunity with its millions of free 3D CAD models of well-known component manufacturers into its website. This makes over 460 manufacturer certified product catalogs available to its members for their designs.

China | CADENAS China Ltd.





>>> www.e-works.net.cn

e-works



To learn more about the way German companies work, about

"Made in Germany" and the implementing of Industry 4.0, a delegation from e-works visited CADENAS and others on 17 October 2017. Software solutions were introduced and it was explained how CADENAS functions as a link between component manufacturers, products and engineers as well purchasers. e-works is a service organization with its focus on IT application of the industry in China.

BEST PRACTICE

Strategic Parts Management PARTsolutions



So Autodesk Fusion 360 users can now do their design work even faster

New user interface of the integrated "parts4cad" app from CADENAS simplifies designs

Since the beginning of 2016, users have benefitted from the cloud-based design and planning software Autodesk® Fusion 360™ with the fully-integrated CADENAS app "parts4cad" and its millions of 3D models from over 400 certified manufacturer catalogs. A new version of the cloud-based CAD solution for 3D modelling has been available since the end of 2016. Thus, a completely new user interface of the 3D CAD models download service "parts4cad" from CADENAS was introduced.

The desired components can be individually configured more easily and quickly, thanks to the new "parts4cad" user interface and then directly integrated into the existing design in Autodesk Fusion 360.

Cloud-based design not dependent on location and time

Autodesk Fusion 360 is a comprehensive cloud-based solution for 3D modelling and the first 3D CAD/CAM tool of its kind to span over the entire product development process in a cloud-based tool. Designers and engineers create their product designs in the cloud in 3D and work internationally together with other participants. The cloud technology behind Autodesk Fusion 360 makes it possible that the user has access at any time, regardless of location and with any mobile end device or Internet browser.



Visit the Autodesk Fusion 360 3D CAD model download portal:

https://autodesk-fusion.partcommunity.com

Simple integration of a 3D CAD model by "parts4cads" directly into Autodesk Fusion 360

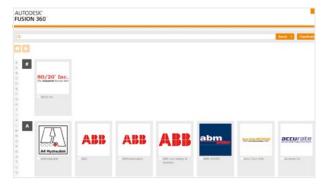


"Insert a manufacturer part" can be found in the tab "Insert". This leads the user directly to "parts4cad".



In "parts4cad", the user can then retrieve the desired manufacturer catalog.







The selected component can now be individually configured and integrated into Autodesk Fusion 360.



The 3D CAD model can be integrated into an existing design in Autodesk Fusion 360.



Our videos show, how PARTsolutions truly supports you

Perfect parts management und more time for developing innovative products

Simply find information, optimize parts inventory, support part reuse, or simply do fewer unproductive activities and have more time for creative product development: Every company and every engineer has their own needs when it comes to improving internal engineering processes.

CADENAS has developed the solution for engineers, like Ingo, and for big as well as small businesses: The Strategic Parts Management PARTsolutions.

You want to know how that works? Then take a look at our two about 100 seconds short videos!

Use CADENAS Strategic Parts Management PARTsolutions and benefit from optimized configuration construction processes and many more and thus secure the competitiveness of your company.



Further information of the Strategic Parts Management PARTsolutions: www.cadenas.de/en/products/ partsolutions/strategic-partsmanagement





3D CAD Models Engineering App: 800,000 installations and excellent reviews

A much loved app for mechanical, electrical and plant engineering comes from CADENAS

In 2012 the app "3D CAD Models Engineering" from CADENAS was founded as a download service and research tool for intelligent 3D engineering data. Since its publication in the app stores of Google, iTunes and Windows it has been downloaded and installed over 800,000 times.

The app is one of the most loved apps in the area of 3D CAD manufacturer catalogs. This can be seen in the installation numbers along with the copious amounts of positive customer feedback. The app is currently rated between a 4.5 and 5 stars – without any sign of stopping.



Numerous positive customer reviews

"Great app for viewing 3D models on the go!"

"Great tool for part comparison and quick access. Very handy. Just keep adding catalogs."

"This is by far the best free cad app out there with all the native cad models you could ever need. (...)"

"This is a great aid in design and layout work. (...)"

"It's cool, I just printed 2 cool toys at my library."

The 3D CAD Models Engineering App for engineers and purchasers:



Free download of 2D and 3D CAD models



Allows individual configuration of the CAD models by the user



All CAD models are certified by the manufacturers



The CAD models are available in all major CAD formats



For all current CAD systems: CATIA®, Autodesk® Inventor®, SolidWorks®, Creo ™ Parametric, NX ™, AutoCAD®, Solid Edge®, etc.













PARTsolutions V11 optimizes the design process and shortens time-to-market

Advanced search functions and optimized user interface

In 2017, CADENAS is publishing Version II of their Strategic Parts Management PARTsolutions. The German software manufacturer aims to simplify the daily work of engineers and purchasers and to provide support for the optimization of design processes for the exploitation of hidden economic potential. For this reason, the focus of the new version is especially on the development and simplification of the search functions. In particular, the reuse of standard, purchased and company parts can have a

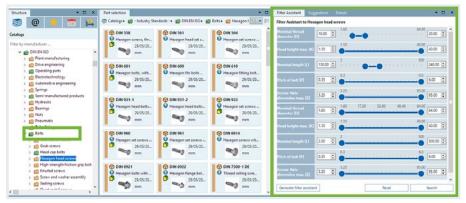
positive influence on costs, already during the design phase. As of now, this is possible by a comprehensive extension of the search functions as well as the filter assistants. Moreover, PARTsolutions VII offers engineers and purchasers an optimized user interface for intuitive operation. The PARTsolutions Version II has also been successfully certified for the Windows IO operating system and thus shows that the Strategic Parts Management from CADENAS meets Microsoft's high requirements.



Automatic filter assistants

The search for components with the help of self-created filter assistants has been popular with PARTsolutions for a long time now. Moreover, Version I I now offers automatic filter assistants for the first time. This means that the catalogs are scanned automatically for certain variables and then filter assistants are offered for the most common variables

with the respective minimum and maximum values. The automatic filter assistants enable users to do a quick and simple search for a part type in all manufacturer catalogs. Within a short time, they obtain a choice of components of various manufacturers, giving engineers a broader view.

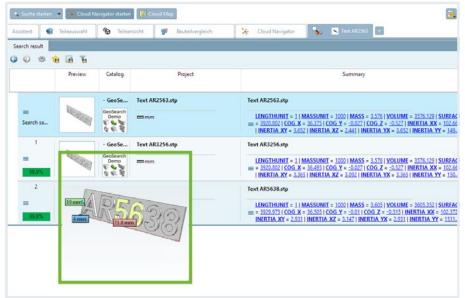




Partial Search further developed – Finding patterns and arrangements

In addition to the Geometric Similarity Search GEOsearch, where the entire component is used in the search, PARTsolutions also has a partial search available. Here, individual elements of a component can be marked and the search for components with similar elements can be performed. The Partial Search is further developed in Version 11. Besides the small subsegments of a

component, special geometric arrangements can also be used for the Partial 3D Similarity Search. Here an example: Users can mark the number 56 within their CAD system for the following component. Afterwards, components are displayed that show a geometrically similar arrangement to the marked area. In this way, similar hole pattern, plugs, etc. can be found.

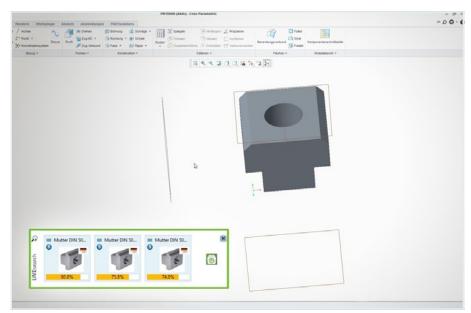




LIVEsearch shows geometrically similar components during the design stage

By means of the LIVEsearch function of the Geometric Similarity Search, engineers and purchasers receive optimum support. In the CAD system, geometrically similar components that exist are searched for automatically

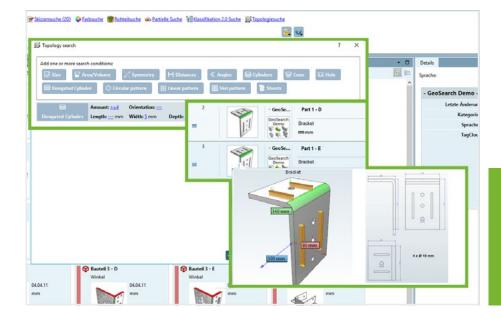
already during the design process and shown at the edge of the screen. Thanks to the new quick comparison, the components can then be easily compared with each other.





Detection of additional patterns in components

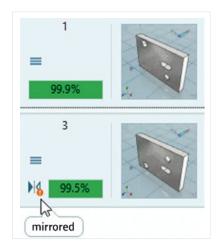
With PARTsolutions Version 11, new topology types have been added for the Topology Search. Thus, additional new patterns are automatically detected and used in the search for components. This way, users can run their search according to certain drilling patterns or arrangements like cones and get to the desired component that much quicker.





Marking of mirrored components

With the help of the Geometric Similarity Search GEOsearch, it is now easier for PARTsolutions users to compare two components. For the first time after the search, mirrored components are specially marked in the results list. Engineers are then informed if the part is geometrically similar to the component searched for, even though it cannot be installed due to the mirrored image. In addition, users can specify in the settings whether mirrored components should be hidden in the search results.

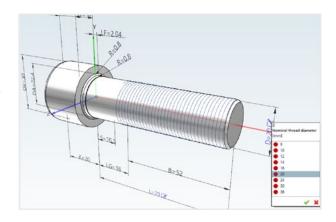




Configuration in 3D view

Nother new feature is the option to configure the component directly in 3D view. Users are offered a choice of variables in the 3D component preview, and so the values no longer need to be searched for in the table.

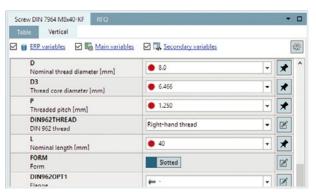




Customizable table layout

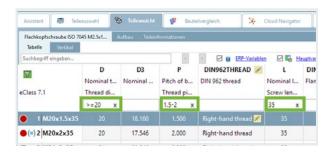
The tables with the respective component information have been completely redesigned for the PARTsolutions Version I I and expanded with additional helpful features. The modern table layout can be adjusted individually by the user, for example, in changing the height of the table, etc. There are two types of tables available in the new PARTsolutions version for engineers and purchasers. Component information can be displayed vertically as well as horizontally, where switching between the two views can be done easily and quickly with a click. In the vertical view, the user also has the option to configure each component in just a few steps.





Filter options of table columns

Moreover, there are new filter options available in PARTsolutions VII. So for the first time, users can filter by column, which simplifies reworking within the table. Input fields are displayed for filtering in the header of each column. The available variants can be narrowed down with just a few inputs.



Parametric reference model instead of manual classification

The new Classification 2.0 enables engineers and purchasers to run quick and easy searches for standard and purchased parts in all catalogs. In contrast to traditional classification, Classification 2.0 requires no extensive, manual preparation. Parametric reference models have been stored for the individual classes. With the new search method, for example, not only the component class but also drill holes with their respective sizes can be taken into account.



PURCHINEERING 2.0: Trust is good – control is better!

If the engineer uses a new component from a non-approved supplier in his design, purchasing normally doesn't find out until much later. The intervening and use of an alternative component of a defined preferred supplier is then hardly possible or only at high cost. The purchaser normally has no other choice than to obtain that component. PURCHINEERING 2.0 gets purchasers involved early on in the development process: In PARTsolutions, an automatic service monitors all parts checked into the PLM in the

background and checks whether the new component or the supplier is really necessary. If the new system was unjustified or an approved alternative already exists, engineers and purchaser are informed within a very short time that it could be an unnecessary component or that it must be obtained from an existing supplier. Changes during this early phase of development are fast and problem-free, thus ensuring a short time-to-market.



Easily realize time and cost savings



Thus, engineers gain 58% more time for creative development and the design of innovative products – Ingo shows you in our short video his recipe for success.



Further information can be found in our PARTsolutions brochure or at:

www.cadenas.de/en/products/partsolutions/strategic-parts-management

Continuous new chances to win for one year!

For one year, the exchange platform PARTcloud.net at the 3D CAD model download portal PARTcommunity from CADENAS, offered the opportunity to win an Amazon voucher worth 25 euros with witty, creative and unusual or useful CAD models.

52 Weeks - 52 Challenges

CADENAS had set up a separate group for the challenges: The PARTcloud.net Weekly Challenge offered over 200 members fun and challenges. Every week, participants had a new assignment that they had a week for a while. It could be uploaded as many 3D models as you wanted and could construct. Up to 30 uploads in a challenge were therefore not uncommon.

"The designers were engaged in their work and could hardly wait for the new week and task," said Jürgen Heimbach, CEO of CADENAS. "We were really surprised at the participants' ideas and made sure that there were as many different tasks as possible to keep the challenge exciting and the participants able to demonstrate their abilities."





WARR Hyperloop Team wins competition I and II of the SpaceX Hyperloop Challenge

Winning pod was developed with help from PARTsolutions by CADENAS

A total of 40 students have developed two prototypes of a Hyperloop capsule in the WARR Hyperloop Team (Wissenschaftliche Arbeitsgemeinschaft für Raketentechnik und Raumfahrt) of the TU Munich. The team received take-off clearance in January and August 2017 on the SpaceX test track in Los Angeles. At the first competition, the Hyperloop pod of the Munich team completed the fastest race, being the only one to make it to the finish line and thus taking first place. In August, the second pod shot to first place through the 1.25 km long test tube at speeds of 324 km/h at the SpaceX Hyperloop challenge competition II in Los Angeles. The team was no match for the other two finalists and beat their previous success from competition I. Elon Musk, as initiator of the Hyperloop challenge, even took to Twitter himself to congratulate the WARR Hyperloop Team personally.



WARR Hyperloop's favorite: The Geometric Similarity Search GEOsearch

The Strategic Parts Management PARTsolutions by CADENAS was used to help develop the second pod by the WARR Hyperloop team. By providing free licenses of PARTsolutions technology, the team had access to engineering data of standard and purchased parts from more than 700 renowned component manufacturers. The students also profited from the numerous search methods to find the right parts for their Hyperloop pod, e.g. a fitting plug connector. "The Geometric Similarity Search GEOsearch is our favorite - the ideal tool for the inner and outer diameter in the development of our Hyperloop capsule, to find wheels and bearings from diverse component manufacturers as well as suppliers and to compare them with each other," says Sagar Shah, CAD designer. The search for a concrete component for the WARR Hyperloop Team was considerably more complicated before using PARTsolutions. After the needed part and its properties is defined within the team, the component usually has to be designed itself, for example: the brake system of the first capsule. Moreover, manufacturers of similar components had to be contacted during the search for the right part. It was, however, a costly and time-consuming process.

WARR Hyperloop Team benefits from a huge selection of manufacturer catalogs

During the development of the second pod, for example, engineering data from the profiles of the MayTec manufacturer was put to use. "We imported MayTec profiles from PARTsolutions into CATIA in order to design the test track for our linear induction motor. After we selected the profiles, we then used the extensive search methods in PARTsolutions to find the suitable plug connection, test it by means of the 'Comparison' function and then import into our design at once," says Sagar Shah.

In summary, the WARR Hyperloop Team is very satisfied with the use of PARTsolutions for their project: "Since our product is only built once, 'optimization of processes' has a somewhat different meaning for us than probably for many other customers of CADENAS. But we managed to find better components and thus saved time as well as money in our development process. It was great for us as students to get real insight into how large companies handle parts procurement effectively," says Catriona Bruce.





The WARR Hyperloop team completed the fastest race at the Hyperloop Competition II in Los Angeles and enjoyed the meeting with Elon Musk

As a part of the CADENAS Industry Forum convention in March 2017, the WARR Hyperloop Team presented its project. In addition, the Canadian Hyperloop Team of the Ryerson University of Toronto gave insights in their innovative braking system and showed how design can be accelerated with AIA NAS standards by CADENAS.

CADENAS congratulates the WARR Hyperloop Team for their amazing success!



Learn more about the current trends at the WARR Hyperloop Team at: http://hyperloop.warr.de

PARTsolutions supports the well-known Stuttgart manufacturer for premium cars

Knowledge-based design at Daimler AG with the aid of PARTsolutions



Daimler AG has been successfully using PARTsolutions 2002. As an automobile pioneer and largest supplier of premium cars as well as a globally positioned manufacturer of commercial vehicles, the company strives to promote the transfer of know-how — Keyword: knowledge-based design. The carmaker's engineers have access to the company's own design guidelines for die casting tools within PARTsolutions when developing products.



Direct access to all relevant component information

With implementation of the design guidelines in PARTsolutions these guidelines are available as a PDF document directly in the software and links to the engineering data is possible. The design guidelines specify how the die-casting tools are to be designed and which parts to be used. In addition engineers have access to 3D

engineering data out of the PDM system Smaragd which can be inserted directly into the respective designs in the CAD system NX.

Easier working conditions for external service providers

External service providers or suppliers also require access to on-going projects, e.g. it must be clearly evident which standards are preferred in the. At the customer the supplier portal PARTcommunity Enterprise provides a direct connection to PARTsolutions and enables access to a great deal of parts information from the PDM system Smaragd and the ERP system SAP. External project participants therefore have access to all component information necessary for their designs via the online supplier portal. Modifications in the construction lines are available to all participants. By simply enabling and disabling access, the company can maintain control over the access to internal data. The official guidelines are maintained in a central location as well as the respective 2D and 3D drawings of 3D engineering data are also available.



Free plugin for the software Blender facilitates export and upload on PARTcloud.net

Direct from the CAD system into your account on PARTcloud.net

Anyone working with the free 3D graphics software Belnder can now receive a free plugin from CADENAS. This plugin will allow them to upload their 3D CAD models easier and faster directly from the CAD system to the PARTcloud.net exchange platform to share them with their colleagues and friends

Unpack the file and upload 3D models directly

In the upload area of PARTcloud.net users have a button, which allows for a ZIP file to be downloaded. The file must be unpacked to be able to insert the folder "io_online_partcloud" into the blender folder "addons".

Within the Blender software the tab "User Preferences" and under it "Add-ons" have to be selected under "Files" in order to activate the plugin "Import-Export: PARTcloud Export & Upload" from CADENAS.

Now the tab "PARTcloud" will appear on the main page. Finished 3D CAD models can be labeled, tags can be added and then the model can be uploaded directly into your account on the CADENAS exchange portal PARTcloud.net.

Try it now: Share and recieve 3D CAD models

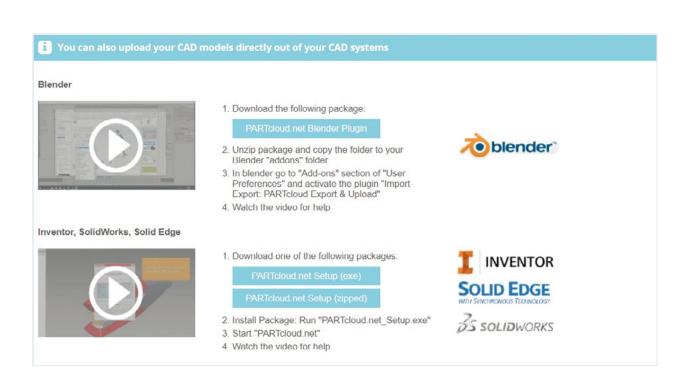
Participants of the large sharing community PARTcloud.net benefit from the enormous choice of user generated CAD models as well as from the platform itself where their own models can be uploaded and made available to other users.

Better yet go to www.partcloud.net right now and become a part of the sharing community.



The free Blender PARTcloud.net plugin can be found here:

https://b2b.partcommunity.com/community/partcloud



Transportable OP microscope receives the German Standard Parts Award

With over 80% standard parts the OP microscope is affordable for ENT and eye doctors in developing countries

This year's winning project of the German Standard Parts Award (Deutscher Normteile Award) is an impressive example of how the use of standard parts can contribute to helping and supporting developing countries effectively. In the competition, organized by CADENAS and Otto Ganter, the transportable operation microscope from Prechtl Engineering won first place and was awarded a cash prize of 2.500 euro.

Comprised of over 80% standard parts from a total of 191 components, the development as well as the installation of the microscope is very cost-effective. The transportable OP microscope is currently in use by ears, nose and throat doctors (ENT), as well as eye specialists in Africa, Asia and Oceania to provide surgical care for people in remote regions of the world. This is because medical operations can only be carried out in such countries under difficult conditions with high risks to the patients.

"The attention our project has received through the German Standard Parts Award is really great. We hope that EAGLE (European Association of Global Lecturing ENT reg.), who collects money for the OP microscope, will thus obtain further support," says Jakob Prechtl, CEO of Prechtl Engineering. To this CADENAS supports the association by donating 2,000 euro. In addition, many CADENAS customers, such as igus and MISUMI, not only provide components digitally via www.partcommunity.com, but also donate those parts in real life.

A true lightweight that can be used anywhere

The worldwide unique transportable OP microscope differs to conventional devices with a total weight of only 12kg. It can easily be transported by doctors for their outreach missions in remote areas and works independently of the electricity supply.



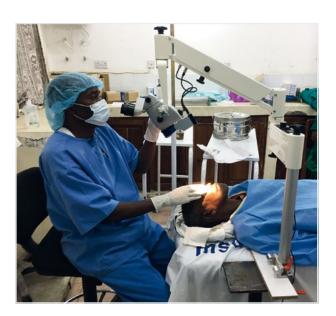
From an exotic idea to reality

Jakob Prechtl first got the idea to develop the microscope back in 2010, through his friend ENT doctor, Dr. Biesinger: "He told me about his experiences when working abroad during a charity mission in Myanmar. He needed much more time than usual for routine operations, because the required medical equipment was not available meaning higher risks to patients. Most of all, he missed a reliable functioning OP microscope for delicate operations in the middle and inner ear. He therefore dreamed of a 'travel microscope'." The engineering company Prechtl Engineering had previously been specialized mainly in the design and development of larger machines as well as machine tools. The idea of the OP microscope was rather exotic for Prechtl: "At that time we weren't even active in the medical technology sector. To begin with, we purchased a used OP microscope by auction, took it completely apart and studied its functions in detail. We then thought about how to implement those functions in a miniature version." As early as 2011 he accompanied

a team of doctors in their workshop to Myanmar with the first prototype in his luggage and got to monitor and follow the first use of the device live. Also Dr. Biesinger enthusiastic about the portable OP microscope: "For operation, I am pleased to work and train with this microscope. Not only because of its unique practicality, but because this outstanding innovation has already brought hearing and sight to so many people in poor countries, or even saved their lives. I thank the people here in Europe who support this development and our associated association EAGLE. And so I wish that our sustainable work will continue to be supported by sufficient financial support."

Mostly poor patients benefit from price savings through the use of standard parts

Doctors and organizations that often use the portable surgical microscope in remote regions of the world to perform urgent ear or eye surgery usually do not have the resources they need to get the device. The money is usually not available to purchase the device for ear and eye surgery. "It was clear from the start that we had to design the components as simple and inexpensive as possible and keep the number low. It was a balancing act to implement as many functions as possible with catalog parts and standard parts, without making concessions in usability and design," says Prechtl about the development process.





This project demonstrates that the deliberate use of standard parts is not only advantageous for the industry but also makes a decisive contribution to humanitarian aid with clever ideas and lots of commitment. "The German Standard Parts Award has precisely this goal in mind. The competition should show that standard parts can greatly contribute to implement engineering ideas efficiently in practice. We are also pleased that this year's first prize went to an outstanding humanitarian project", says lürgen Heimbach, CEO of CADENAS.



Stay up to date about the new developments of this project in our PARTcommunity group "Transportables OP-Mikroskop für Entwicklungsländer" at: www.partcommunity.com

BEST PRACTICE

Electronic Product Catalog eCATALOGsolutions

Interactive Product Configurator with Big Data technology for SMC maintenance units

CADENAS know-how supports users with complex product configurations



Customers of SMC, worldwide leader in the drive and control technology

of pneumatic and electric systems, have had access to an air treatment configurator since the end of 2016. Modular maintenance units can thus be configured, easily and quickly, directly in the web browser and with graphic support.

Automated process saves time for the customers

At https://etools.smc.at/frl engineers can find products from the area of SMC Air Equipment, which they can configure according to their requirements: "Focus is on the benefit for our customers. Saving time, simple handling and the completeness of CAD data are the big advantages the configurator offers. The processes are fully automated in the background",



Air treatment configurator by SMC

explains Daniela Sefzig, Software Development e-Tools in the SMC CEE Group. Currently, more than 9,000 products are being configured and downloaded monthly worldwide.

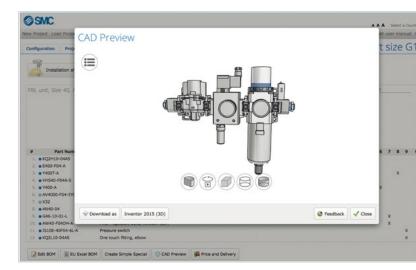
Complex solutions by a few simple clicks

The user receives automatic solutions while processing and is shown suitable component configurations, and can generate these independently with just a few clicks. The resulting 3D data can also be transferred in an uncomplicated way in various dimensions. For example, the size of flow can be changed without creating a completely new model. A mouse click on the corresponding button generates the CAD model with the adjusted values.

The work with the configurator is integrated into the SMC processes so that the system of the generated configuration takes place in the ERP system automatically. Customers can thus be supported more quickly and will benefit from the automatic testing of the data and order. Orders are also simplified, as an automatic update of end-of-life information takes place in the files already created: Configurations that contain older CAD product data can be retrieved again after a longer period of time and include components already updated, so that the customer has no need to make a new configuration. To maintain an overview, the implemented updates are shown.

Big Data Technology at SMC

Future oriented, SMC builds on Big Data technology: Prediction analytics and machine learning support the configuration. The anonymous configuration data is then collected and evaluated. Thus a prediction can be made how certain parts can be assembled together during the next configuration. The data also serves to optimize the service: It can be acted upon early enough before unrealistic combinations of the components occur. "SMC has been working for years now on a global basis with CADENAS. Therefore,



Air treatment configurator by SMC

our configurator is also adjusted to the market strategies of each SMC subsidiary. The cooperation has always proved positive, this is why the current project has been successfully implemented together," says Daniela Sefzig.

"It's important to us that our solutions grow with the demands of our customers. Thus, CADENAS can customize the most optimal solution for the customer," says Jürgen Heimbach, CEO of CADENAS.



Test the air treatment configurator of SMC: https://etools.smc.at/frl

>> Focus is on the benefit for our customers. Saving time, simple handling and the completeness of CAD data are the big advantages the configurator offers. The processes are fully automated in the background. <<

Daniela Sefzig, Software Development e-Tools at SMC CEE Group

With the calculation assistance, Special Springs nitrogen cylinders can be configured

Special Springs has achieved the first calculator for gas cylinders together with CADENAS



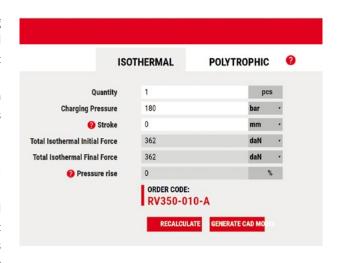
Specialised in the manufacturing of standardised forging die, Special Spring produces three different product standards: ISO 10243, JIS B5012 and US-NAAMS. In

1990 nitrogen cylinders were designed by Special Springs with new standards set on quality, performance and size.

The new Special Springs calculator assistant

Special Springs is constantly active in the development and implementation of modern production and management tools to ensure a high level of quality and first class customer service. They have now made their calculator assistant available online on their website. This gives engineers the tool to define the characteristics of the isothermal or polytrophic cylinder based on their specific requirements.

To see the complete benefits of this service, the cylinder number needs to be entered. This number is important to successfully calculate the parameter and receive important data:





Here you can find the Special Springs calculator assistant:

www.specialsprings.com/forcecalculator





Industry 4.0 & Digital Twin – With eCATALOGsolutions fit for the digital age

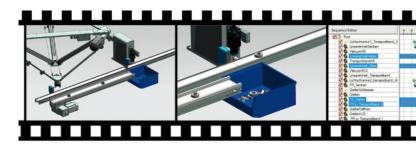
Research group "Digital Twin" develops component standards

Industry 4.0 and the digitalization of the production industry is an important topic worldwide. The more strongly the individual components communicate with each other in the production process, the more intelligent the digital engineering data must be. In order to effectively succeed in practice, well-known component manufacturers, such as ACE, Festo and SCHUNK, have formed the "Digital Twin" research group. A standard is being developed in this research group, organized by CADENAS and in cooperation with Siemens PLM and others so that 3D CAD data created via the Electronic Product Catalog can be used in NX format (e.g. grass pressure ring from ACE) optimally in the Siemens simulation software Mechatronics Concept Designer (MCD). In conjunction with the so-called Digital Twin, it is possible to virtually test the commissioning of technical systems beforehand and digitally perform a careful coordination of control. This shortens the lead-time before the start of production.

What constitutes an intelligent component and how is it prepared for simulations?

The geometry of a component alone is not sufficient for the design. With eCATALOGsolutions by CADENAS, the 3D CAD models contain intelligent functions that go beyond mere geometry and are thus well equipped for the age of Industry 4.0. First, the components must have kinematic

information for simulations, such as direction of movement and degrees of freedom. Moreover, information about nozzle and connector as well as mass centers of each components are important, along with their physical values and limits such as maximum speed allowed, acceleration and deceleration. So that further simulation software solutions can be used in the future, CADENAS defines metadata beforehand that corresponds to what is in the Electronic Product Catalog.



You wish to make your Electronic Product Catalog fit for Industry 4.0? Then send us your query to catalogs@cadenas.de.



More information at: http://bit.ly/2zQaQ2P

15 manufacturer catalogs are awarded the "Golden Catalog Seal"

CADENAS awards prizes to digital product catalogs which offer the best service to engineers

Continuously Electronic Product Catalogs on the basis of the eCATALOGsolutions technology get awards prizes with the quality seal in gold, silver and bronze. In the framework of the Industry Forum, the CADENAS award "Golden Catalog Seal" went to the catalogs of component manufacturers with the most comprehensive intelligent information.

The seal appears in the digital product catalog next to the company logo of the manufacturer in the right corner in the Strategic Parts Management PARTsolutions from CADENAS and the 3D CAD models download portal PARTcommunity.



You also wish to score with a quality seal?

Winners of the "Golden Catalog Seal" 2017 are catalogs of the companies Afag Automations AG, AHP Merkle GmbH, AMF ANDREAS MAIER GmbH & Co. KG, ELESA S.p.A., Otto Ganter GmbH & Co. KG, Festo Vertrieb GmbH & Co. KG, HEB Hydraulik-Elementebau GmbH, igus GmbH, HEINRICH KIPP WERK KG, KIPP Inc., norelem Normelemente KG, NovoNox KG, PHD Inc, WAGO Kontakttechnik GmbH & Co. KG and the Würth Group.

Let us show you in our workshop "Pimp my Catalog" how you can expand the digital product data of your Electronic Product Catalog with intelligent information and secure yourself the benefits of the "Golden Catalog Seal" with a quality seal from CADENAS. Provide optimal support



to engineers and purchasers in the product development process and benefit from the best positions on the 3D CAD models download PARTcommunity, from sales increases through key customers and from the 5% discount from CADENAS for service with follow-up orders.

We will have a look at your present catalog together with you, work out how it can be optimized and make industry-specific recommendations for you to integrate value-added information, new features and trends.

"Golden Catalog Seal" Advantages:



Top Ranking Search Result

Top placement in Vertical Marketplaces, PARTcommunity and Strategic Parts Management PARTsolutions



Sales Increases

Key customers prefer parts from high-quality catalogs



5% discount from CADENAS

For service with follow-up orders



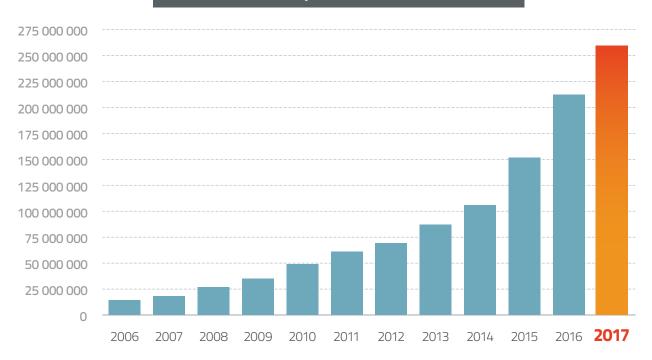
Simply contact us at: catalogs@cadenas.de

Record year 2017: 260 million 3D CAD model downloads on PARTcommunity Thanks to excellent product catalog data, PARTcommunity registers a

continuous growth in users and downloads

Since the beginning of the year 2017, a rapid increase of the monthly CAD models downloads was recorded, which was not to slow down. The number of downloads in November stood at over 25,5 million leaving the yearly total at 260 million downloads – tendency still rising! Engineers and constructors can download 3D CAD components and import them in their native format to suit their CAD System needs worldwide, round the clock. Currently there are over 460 manufacturer CAD product catalogs ready for download. Moreover, the portal offers extensive search features: In every initial situation the 3D CAD model download portal PARTcommunity always finds the suitable components, regardless of whether you would like to draw a simple sketch of the product or use the Geometrical Similarity Search GEOsearch on the basis of an existing component. Thus PARTcommunity is one of the daily tools of millions of engineers worldwide. The Electronic Product Catalog is ideal for marketing technical products successfully and to a broad international clientele. The advantage for component manufacturers is obvious: Almost 87% of downloaded CAD models lead to purchased products later.

PARTcommunity Downloads 2006-2017





PARTcommunity 7: New version of the popular 3D CAD models download portal

This is how the new features support engineers, purchasers as well as the marketing and sales team

The new PARTcommunity 7 simplifies the locating and downloading of intelligent 3D CAD engineering data for engineers and purchasers. In addition, it allows a speed increase by 40% and is the ideal marketing & sales tool for component manufacturers.

A clearly designed user interface

The header of the portal is designed to be more narrow and compact and perfectly suitable for use with mobile devices, thanks to its responsive design. In addition, the header and the important information it contains, such as the manufacturer logo and the tab with user profile, remains visible at the top of the browser. The preview images of the components are greyed out with the PARTcommunity Version 7 as soon as the selected component no longer matches the preview image. The user then receives a notice to update the preview images via a button in the middle of the preview.

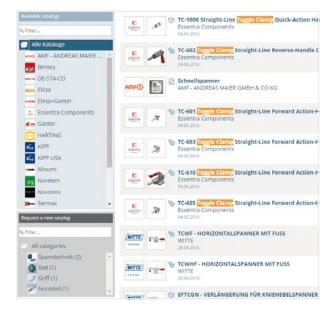
New tools to better locate and select components & a new help assistant

Engineers and purchasers are supported even better now in their search for the desired component: While entering the search term, as of now other languages are automatically added. Thus, components can be located from catalogs, where the description is not in one's own native language. In addition, a tool is made available to users for the simplified entry of value ranges of components as well as a new help assistant.



Direct integration of the desired catalogs function into the search for components

The long popular function is integrated in PARTcommunity 7 directly in the search for components. Along with the search results, the users can also display the search term for suitable components which had previously not been available at the download portal but are subsequently desired. CADENAS contacts that manufacturer and makes sure the desired components are provided for free download as quickly as possible.



Creating of simple product configurators without development expenses

Product configurators with simple functionality can be created easily and quickly without any development expenses within the eCATALOGsolutions software solution with the new PARTcommunity Version 7. The selection of individual variables can be distributed on multiple tabs and sorted according to the logical order of choices. Moreover, assistance in the form of an info box can be created for each variable, a great help to engineers and purchasers for product configuration.

Additional features for more transparency during the download

Some manufacturers limit the number of downloads possible per day on their own download portals. In this case, the new PARTcommunity version helps users to keep an

overview of how many downloads are still available for a certain period of time. In your own download statistics you can see an estimation of time and cost savings, based on the downloads of a user during the past year.

Optimal smart sales tool

The optimized Smart Sales solution enables you to quickly identify potentially new customers directly at the PARTcommunity download portal. Instead of working through endless Excel lists, the CAD downloads are clearly displayed and can thus be systematically evaluated. Version 7 also makes it possible that only the download information of the customers and prospects in the sales employee's designated sales region are displayed. In combination with the current GPS position, prospective customers can be located in the immediate surroundings. This makes possible, e.g.: an optimal route planning for the sales representitive.

New statistic dashboard with revenue increasing in-depth analysis

CADENAS once again revolutionises the market by offering component manufacturers a brand new statistic dashboard with numerous revenue increasing in-depth analysis such as a comprehensive overview of download statistics. Download data for the current month can be found on the dashboard along with links to further reports with detailed tables and graphics.

Integration of goBIM information

The topic of Building Information Modeling (BIM) is gaining significance in the sectors of architecture as well as civil engineering and technical building services (MEP/HVAC). The new version of the 3D CAD download portal integrates for the first time important additional information for building planners from the website goBIM.com. In future, optimal service in the area of BIM will be offered by the 3D BIM data from PARTcommunity together with the knowledge database on the relevant component information from goBIM.



Find the 3D CAD models download portal PARTcommunity at: www.partcommunity.com

Toshiba International Corporation expands 3D Digital Parts Catalog

Industrial Manufacturer adds 3D product models by popular demand, bolstering digital customer experience for design engineers

TOSHIBA

Toshiba International Corporation's Motors & Drives Division has

recently expanded its online digital parts catalog to include medium-duty motors and drives. Built by CADENAS, these digital product models were frequently requested by design engineers seeking accurate 3D CAD representations of Toshiba products for large scale projects. Now engineers have quick and easy online access to the digital data they need, accelerating design times while building accuracy into their projects.

Toshiba International Corporation (TIC), a leader in the design and manufacture of motors, adjustable speed drives, controls and other power electronics products, originally launched its most popular products for download via the digital parts catalog in 2009. Their plan was to continually grow and improve the catalog, adding more specialized products year by year. By including the medium-duty product families, TIC is making it easier for more engineers to configure, download, and purchase the components they need.

Toshiba Medium-duty drives are used in a broad cross-section of industries, with applications including Oil & Gas, Mining and OEM equipment.

"Originally, we made our most popular products available for digital download, and received a lot of traction," says Joe Hanna, Marketing Development Manager for the Toshiba Motors & Drives Division. "As time went on, we received many requests for more specialized products to be available in the same way. Engineers of large OEM products and industrial projects want the same convenience as other designers. They need that same quick turn-around you can only get with an on-demand digital catalog."

TIC selected CADENAS to supply its online product configurator due to the flexible implementation and



vast selection of file formats available for customers to download. With more than 100 formats available, CADENAS has one of the widest selections in the industry with native outputs to all major CAD systems, including Autodesk AutoCAD®, Autodesk Inventor® and Revit®, SolidWorks®, Solid Edge®, PTC Wildfire® and CREO®, Siemens NX®, CATIA®, and more.

"The goal today for every company is to be 'easy' to do business with," says Jay Hopper, COO of CADENAS PARTsolutions LLC, a member of CADENAS group. "Ease of doing business is essential for both sides of the transaction. Manufacturers and service providers want to be the easiest to work with because their customers not only expect it, they demand it. By continually building out their catalog, Toshiba has become 'easy to work with' for another major industry segment."



Find the 3D CAD models of Toshiba at: http://toshiba.partcommunity.com

Patented solution for downloading 3D engineering data via QR code

Innovations of the software manufacturer CADENAS from Augsburg are protected – for the sake of the users

In order to provide the best possible service to engineers and manufacturers, CADENAS files its innovative products and developments with the European Patent Office on a regular basis. "We not only protect our ideas against imitators, we especially want to protect our customers who know certain CADENAS products and features as well as developments and are highly satisfied with the quality. With copycats, the quality can't be guaranteed," explains Jürgen Heimbach, CEO of CADENAS.

Printed 3D CAD product catalog with that certain extra

The CADENAS patented process has to do with the downloading of digital engineer data and the ordering of components from a paper catalog – this is where the gap is easily closed between print and digital.

Scanned with a QR code in addition to component details, the 3D CAD parts are provided in over 100 native CAD formats and can be downloaded in the respective CAD system. The code can be scanned with e.g. a mobile end device.

This process is a simple and time-saving option for engineers to obtain CAD models. Moreover, the user and product information no longer needs to be entered into an order form — the data is collected with the input of the code. Time-consuming corrections and queries by the engineers at the manufacturer are kept to a minimum.

Would you like to learn more and offer this service to your customers?



HEB PARTcommunity integrated seamlessly into the HEB company website

Directly - simply - quickly: Download of suitable HEB CAD engineering data



HEB Hydraulik-Elementebau GmbH

Thanks to PARTcommunity embedded technology, HEB customers can use the company website to search for and configure needed 3D CAD

engineering cylinder data, and download into their respective CAD system in over 100 native formats such as Autodesk, Revit, Solid Edge, SolidWorks, NX, etc. The HEB PARTcommunity embedded thus fits in perfectly into the website as well as the existing CI. The 3D CAD download area has been individually tuned to the needs of the customer.

"Via the embedded technology, HEB has integrated the CAD catalog directly into the homepage, thus providing a seamless transition from product information to CAD data. Customers can obtain information about the products in general quickly and easily as well as download the right

model for the cylinder directly in the next step," summarizes Philipp Hamann, Head of the K-Team at HEB. Engineers can get to the right cylinder directly on the HEB website via the menu structure and there configure the 3D CAD model, if they are sure of the product they need or they can click through the product categories on the website and obtain comprehensive information about the products, thus finding the right cylinder.

Electronic Product Catalog as an integrated solution by CADENAS

With PARTcommunity embedded the Electronic Product Catalogs, based on the eCATALOGsolutions technology by CADENAS, can be integrated seamlessly into the company website.

>> Previous experience has shown that the seamless integration of the 3D CAD model download portal into your own website can lead to an increase of downloads of more than 50%. <<

Jürgen Heimbach, CEO CADENAS



The simplified access via the PARTcommunity embedded solution, is available to every component manufacturer in possession of a catalog with eCATALOGsolutions technology.

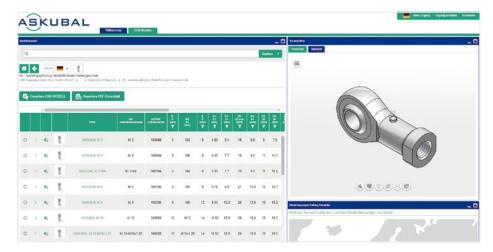


Visit the HEB website at: http://www.heb-zyl.com/hydraulik.html

ASKUBAL facilitates the export of its products with new Electronic Product Catalog

Customs tariff numbers for each ASKUBAL component makes international shipping child's play





Creating customs papers for international shipping usually means tedious and time-consuming work. This is considerably simplified with the new ASKUBAL Electronic Product Catalog at http://askubal.partcommunity.com. Besides component information such as color, texture and kinematics, the respective eight-digit customs number of the component is also provided. With the help of the Electronic Product Catalog, based on CADENAS eCATALOGsolutions technology, the ASK Kugellagerfabrik Artur Seyfert GmbH (ASK bearings factory) thus offers its customers 3D CAD models with numerous intelligent functions that go well beyond mere geometry.

The ASK Kugellagerfabrik Artur Seyfert (ASK bearings factory) produces and sells, among other things, ball, roller and pivot bearings, swivel heads, housing units, curve and support rollers as well as steel balls. The medium-sized family company has been keeping things rolling for over 70 years with the brands ASK®, Askubal®, Asahi® and McGill®.

International shipping made easy

The recording of customs tariff numbers in the product catalog facilitates the export of components significantly. In

former times, customers of the ASK Kugellagerfabrik Artur Seyfert (ASK bearings factory) had to search for and specify the customs tariff number for each component individually, in order to create the customs papers for international shipping. Shipping of components is significantly easier and faster with the new customs tariff number service.

3D CAD models of ASKUBAL simplify and speed up designs

Thanks to the download portal ASKUBAL, engineers and purchasers can download 3D CAD models of swivel heads and pivot bearings as well as ASK housing units in over 100 common CAD formats and integrate them directly into their CAD systems. In addition, a clear 3D PDF data sheet of the desired component supplies all the important product information. The search for a concrete ASKUBAL component is made easier by the extensive search functions of the download portal: Search based on a 2D sketch as well as a full text search are both possible.



Try the ASKUBAL 3D CAD download portal at: http://askubal.partcommunity.com



5 minutes instead of 1 day: Power Jacks customers get access to native CAD data

Intelligent multi CAD engineering data powered by CADENAS is now accessible from anywhere in the world, 24 hours a day

THEN	NOW
SIP	CAD

Power Jacks customers previously had to wait one full working day to receive a part in the required native CAD format. Through the new innovative online product configurator by CADENAS this has been reduced to 5 minutes. "It was critical for our customers to get CAD data fast, 24 hours a day, from anywhere in the world, in the format they want. It also still had to retain all of the essential product information," explains Bruce Hamper, Marketing Director for Power Jacks. "We needed something that was leading edge technology on all fronts, so we looked on the market and CADENAS came out as the best."

"Our website is our main marketing tool"

To ensure the users get the most out of the online system Power Jacks has implemented two separate online tools from CADENAS: the CAD configurator and a product selector. "The CAD configurator is for the engineer that understands exactly what they require, choosing and selecting the appropriate product options and variants, and downloads the part. The product selector on the other hand is for the engineer that is unfamiliar with our products but has all of required parameters of their particular applications. They input these details and the system recommends a product based on Power Jacks best practice knowledge," says Bruce Hamper. The configurator and selector powered by CADENAS should see the number of downloads go from hundreds to thousands over the next few months following its unveiling at the beginning of March this year. Currently four product groups are online with multiple product ranges resulting in thousands of product variations in over 100 native CAD formats for example; Autodesk, Revit, Solid Edge, SolidWorks, NX, etc. with more planned for the near future.

"They provided a good level of support throughout the project and that was something our old system was missing. It is great to work with a highly motivated company that is always looking to deliver new and innovative technology. For example, we love the Microsoft HoloLens which would allow our customers to interact with our products in a virtual augmented reality providing huge communication benefits," explains Bruce Hamper. "This really shows that CADENAS is keeping up with the technology on all fronts."



Try the Power Jacks configurator at: https://www.powerjacks.com/ cad-configurator

More innovation on the way

"We are very happy to have Power Jacks as our customer with them being the largest British manufacturer of screw jacks, bevel gearboxes and linear actuators," says Colin Johnson, Managing Director of CADENAS Solutions UK. "We are excited to have their core product range go live on the product configurator with more products being added over the next 2-months including the C-Series screw jacks. We will be supporting multiple languages including German, which aligns with the opening of a new Power Jacks office in Wangen im Allgäu, Germany. Further languages such as Chinese, followed by other European languages will also be included to help support the global sales and exports of Power Jacks."

Support and Innovation

Power Jacks is a British design and manufacturing company with customers in more than 80 countries, which is why they were looking for a market leader in innovative technology with years of experience creating multi CAD product catalogs.



BEST PRACTICE

BIMcatalogs.net – Product Catalogs for Architecture and Building Industry

Video: How to avoid needing a pack mule for your BIM data

BIMcatalogs.net – Perfect multi CAD data for your products in AEC & BIM

Construction projects are carried out by numerous stakeholders and often take a long time. It is especially important that planners, architects, structural engineers, HVAC specialists and civil engineers get all the necessary information for their work at the right time and in the correct format.

With BIMcatalogs.net all wishes are granted

As a manufacturer of architectural components, you can be as stubborn as a donkey: only offer the standard data and completely ignore the needs and wishes of your customers.

Alternatively, you can run yourself ragged by manually generating all asked for information. Unfortunately, this rarely lasts long.

Thankfully, there is BIMcatalogs.net. Find out in our short video how component manufacturers as well as planners, architects, structural engineers, HVAC specialist and construction engineers can all benefit from the comprehensive BIMcatalogs.net solution. This way being a stubborn, over packed mule can become a thing of the past.



Together with CADENAS, Würth meets BIM requirements perfectly

Extension of the existing Electronic Product Catalog for architecture, furniture manufacture and woodworking





Since the end of August, customers of Adolf Würth have been able to download, configure and integrate into their design various additional 3D engineering data from the sectors of furniture manufacture and woodworking via the already existing Electronic Product Catalog in 100 native formats including numerous common BIM formats such as Autodesk Revit, Nemetschek Allplan and GRAPHISOFT ARCHICAD.

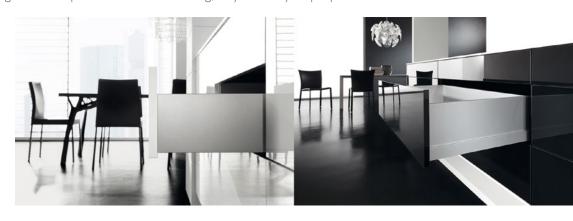
Thanks to the extension of their Electronic Product Catalog, fittings for furniture making have been made available for download along with the product lines of

drawer frame systems, drawer guide systems, furniture hinge systems, flap systems and suspension fittings. The products are provided by the 100% Würth subsidiary Grass from Austria. Grass has belonged to the Würth Group since 2004 and is a pioneer for handle-less furniture design.

Würth product catalog becomes a part of BIMcatalogs.net and offers maximum comfort for Revit users

With the catalog extension, Würth is not only represented on the 3D CAD models download portal PARTcommunity, but they are also on BIMcatalogs.net, the portal for architects, planners, designers, etc. for 3D BIM CAD data.

Thanks to the new BIMcatalogs.net content plugins, Würth and its customers benefit from the new deep integration in Autodesk Revit. By the consistent linking of BIM objects in Revit with the original manufacturer data of the product catalog, they are always kept up to date. If the manufacturer



"With the catalog extensions we can meet the exact requirements and needs of our customers," explains Dirk Hofacker, Product Area Director for fittings at Adolf Würth. "We already have an Electronic Product Catalog but received several customer requests for woodworking, and so we turned to CADENAS again. We especially appreciate the communication, implementation and straightforward way CADENAS works." Though the Würth brand is well known, this particular product range was previously not present in the Electronic Product Catalog, now the company hopes for customer growth in the area of fittings as well as greater visibility for Würth products on the market.

modifies product information in the Electronic Product Catalog, those modifications are automatically taken over in the existing designs in Revit as well.



The Würth 3D BIM CAD models can be found here: http://bit.ly/2ml2V7R

CeaseFire launch online catalog with interactive 3D visualization by CADENAS

Fire suppression systems manufacturer streamlines product selection by providing online 3D product previews and CAD downloads



CeaseFire, an US manufacturer of fire-suppression systems based in Vancouver, WA, recently launched an

all-new online product catalog, built by CADENAS. The new catalog simplifies the search and selection of CeaseFire products by delivering interactive 3D visualization directly within the product pages. These new digital tools enable designers and engineers to more quickly and accurately select the correct CeaseFire product for their specific application. The catalog also offers on-demand 2D & 3D CAD downloads available in more than 150 formats.

"The challenge for CeaseFire was to help the customers choose the right product for their application. Our products, often identified as the red cylinders seen in industrial and commercial spaces, look similar even though they are different shapes and sizes," says Cody Kitterman, Production Manager at CeaseFire.

"Formerly, customers had a tough time gauging size and scale of our products, which made selecting the correct part for their application difficult too. We would provide dimensions but often that wasn't enough. Sometimes we would end up sending physical samples, which is very inefficient and costly," says Kitterman. "Now, the customer gets to digitally 'touch and feel' the product before they buy. The instant 3D visualization is a great way to preview the product, and the native 3D CAD model is the perfect way to test it digitally in a specific environment."

CeaseFire is best known for their dry fire suppression systems, which can be retrofit into nearly any space. While CeaseFire has offered placement assistance for their products in the past, this was via 2D location diagram. It was up to the customer to model of the specific product in their CAD application if they wanted to integrate a 3D model into their larger design.

Now, engineers and designers can preview the product from any angle and download a digital model, in more than 150 formats, directly from the CeaseFire website.

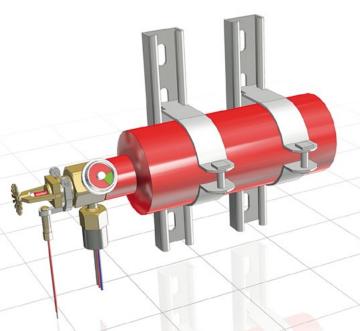
"CeaseFire is innovating within the fire and safety industry by modernizing the customer experience with cutting-edge digital tools," says Jay Hopper, COO of CADENAS PARTsolutions LLC, member of CADENAS group.

"We love helping forward thinking companies like CeaseFire transform their business and take a leading role in their industry," adds Hopper. "By putting innovative digital tools in the hands of their customers, CeaseFire is increasing customer satisfaction, which will drive demand and sales into the future."



The CeaseFire 3D BIM CAD models can be found here:

https://ceasefire.partcommunity.com



New plugin from CADENAS perfects the Autodesk Revit RFA workflow



Connection between manufacturers & planners remains valid throughout the BIM process

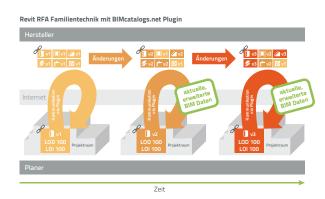
CADENAS has developed the BIMcatalogs.net content plug-in for Autodesk Revit 2014, 2015, 2016, 2017, and 2018 to quickly change and update Revit RFAs. Architects, designers, HVAC experts and planners benefit from simple Configure, Insert & Replace system and extensive configuration options.

Without BIMcatalogs.net Revit, the accuracy of product data is not guaranteed



A project usually runs over a long period of time. At the beginning, the planner has access to current BIM data from the manufacturer if changes to the product data are made by the manufacturer during the project cycle, the planner does not receive any information and continues to work with outdated BIM data. the planner must actively, independently and manually update the Revit RFAs themself. But product data can be overlooked. The design is no longer up-to-date, which can lead to far-reaching problems in project implementation.

With the BIMcatalogs.net Content Plugin product data always up-to-date



The BIMcatalogs.net Content Plugin from CADENAS allows planners to easily insert Revit RFAs via Configure, Insert & Replace system. They receive a direct RFA selection and can configure the data according to their needs. The progession of the plugin from CADENAS: During the entire BIM process, manufacturers and planners remain connected via the plugin. If the manufacturer changes their product data, they are also included in the planning. The planner always receives current and extended data without having to intervene manually.



You can download the plugin here: https://www.cadenas.de/en/plugins/ revit-plugin

CADENAS and coBuilder: Concentrated expertise for growing BIM requirements

Component manufacturers fulfill changed needs of the architectural sector

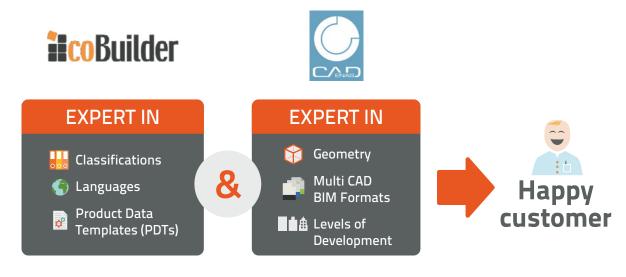
Which information do customers actually need for their product choice? Each professional group has its own standards and each country has other requirements as well as needs for information concerning product properties. Architects require, e.g. for the planning of a building, different information than the facility management later on for maintenance and servicing. When manufacturers wish to market their products worldwide in all the relevant sectors, this quickly results in a huge amount: With 13 classifications, 12 languages, 100 CAD formats, 3 CAD versions and 5 levels of development (LOD), up to 240,000 data combinations of a product variant are possible. Providing such a diversity of information greatly increases the competitiveness of manufacturers for architectural components and cannot be done manually.

The partnership between CADENAS and coBuilder makes it possible for component manufacturers to provide engineering data and product information to the architectural sector so they can finely adapt to the progressing development in the field of BIM. Manufacturers have the possibility to make a large of amount of information available quickly and easily.

CADENAS – Intelligent Engineering Data, Multi CAD Formats and LOD

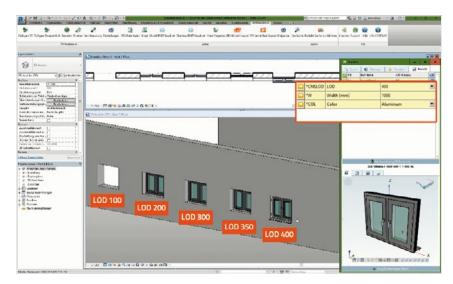
With over 20 years of experience, CADENAS has adapted the proven technology of manufacturer catalogs to the BIM & architecture sector on the basis of eCATALOGsolutions. CADENAS technology supports component manufacturers

The solution for all your BIM requirements



13 classifications × 12 languages × 100 CAD formats × 5 levels of development × 3 CAD versions

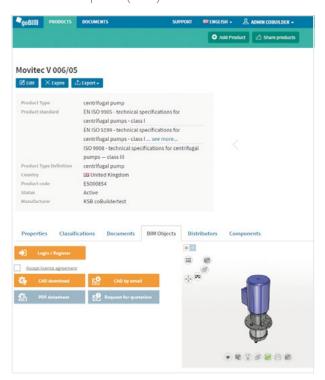
240,000 data combinations



CADENAS – Intelligent Engineering Data, Multi CAD Formats and LOD

in creating their product catalog with minimum of effort and cost, but with maximum distribution for strong product marketing.

Component manufacturers make engineering data available to users that contains geometric and intelligent information such as kinematics, nozzle, collision rooms, etc. The 3D CAD models can be generated additionally in more than 100 file formats of common CAD systems such as Autodesk Revit, Nemetschek Allplan and GRAPHISOFT ARCHICAD. In addition, the components can be displayed in five different levels of development (LOD).



coBuilder - Classification, languages and PDT

coBuilder – Classification, languages and product data templates (PDT)

coBuilder is an international construction software company that develops solutions integrated into Autodesk Revit, Navisworks and ARCHICAD. goBIM from coBuilder is a platform that enables manufacturers to react to the demands of clients and customers, to supply product data in BIM formats and to attribute digital models to them. Customers benefit from the so-called product data templates (PDT) which display information in a neutral tables file, so that constant access and readability can be granted.

coBuilder brings in their expertise on which sector or trade needs which information about a component and supports manufacturers so that European, national, market-determined, legal and environmentally-related requirements are easier to meet.

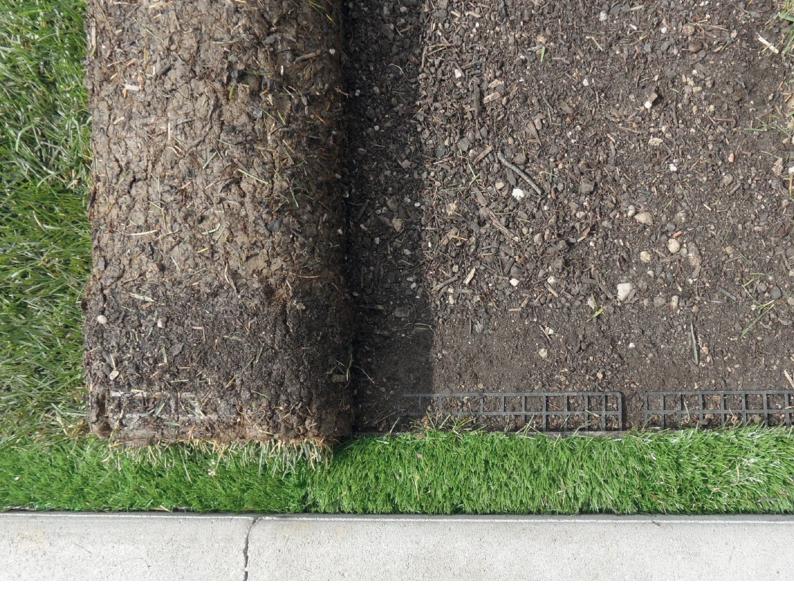
This way users benefit from the cooperation

Together with CADENAS and coBuilder, manufacturers of technical product components develop an Electronic Product Catalog for their 3D BIM CAD data, enriched with attribute data. Architects and planners can access the data they need at anytime via the portal BIMcatalogs.net and goBIM.



Find further information about coBuilder and goBIM:

https://cobuilder.com/



Green thumb up: Grasscalm artificial turf edging on BIMcatalogs.net

Landscape architects and planners benefit from extensive information as well as easy 3D BIM CAD download

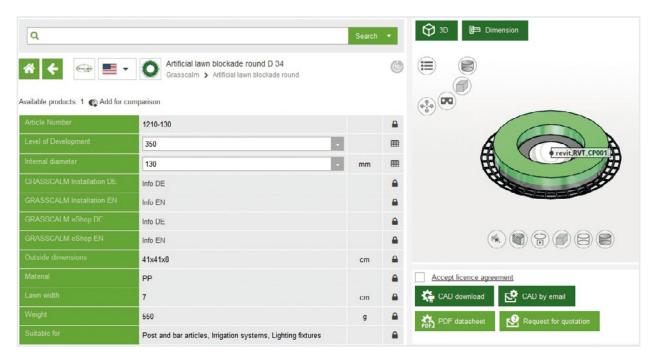


Landscape- and passionate hobby gardeners know the problem only too well: After mowing the lawn, the

edges of the flower beds and the lawn itself usually have to be carefully trimmed by hand. In this case, artificial turf edging can help. The mowing edge borders are made of artificial grass and are used for lawn edges as well as areas difficult to mow. Landscape architects and planners can now download the Grasscalm products as 3D BIM CAD models directly from the 3D CAD download portal BIMcatalogs.net by CADENAS and integrate into their plans.

Easy-care artificial grass products in landscape planning is increasingly in demand

The artificial turf edging by Grasscalm consists of an artificial lawn mat sprayed with hot plastic. The grating enables the product to grow in together with the real lawn and is thus firmly anchored in the ground. The advantages of using artificial grass in landscaping also knows the landscape architect Manfred Schachenmayr, of the Brugger Landschaftsarchitekten: "I use artificial grass products in my planning more and more. It has proved to look nearly identical to normal grass. Easy-care artificial turf products



3D BIM CAD models of Grasscalm on the 3D CAD download portal BIMcatalogs.net by CADENAS.

can be used very well for outdoor facilities such as schools or playgrounds where normal grass lawns would no longer make any sense." Manfred Schachenmayr specialises in planning the outdoor facilities of hotels as well as playgrounds and golf courses.

Time and cost savings through 3D CAD artificial turf edging model

The increasing use of artificial grass products in landscape planning also means that the planners and landscape architects increasingly require digital product data in the form of BIM CAD models for their planning and request such data from the manufacturers. To enable landscape architects and planners to easily include artificial turf products of Grasscalm in their planning and design projects, the manufacturer has recently started offering 3D BIM CAD models of their products on the download portal BIMcatalogs.net, based on the proven PARTcommunity and eCATALOGsolutions technology by CADENAS. "Planners can now look directly on the Internet and do their own configuration. Afterwards, they can easily download the BIM CAD model as well as further information and thus obtain the exact product they desire. This reduces the risk of potential errors and saves the landscape architect as well as Grasscalm a lot of time," says Andreas Güntner of Grasscalm. "Thanks to the download portal, our aim is to be involved with our products directly in the planning process."





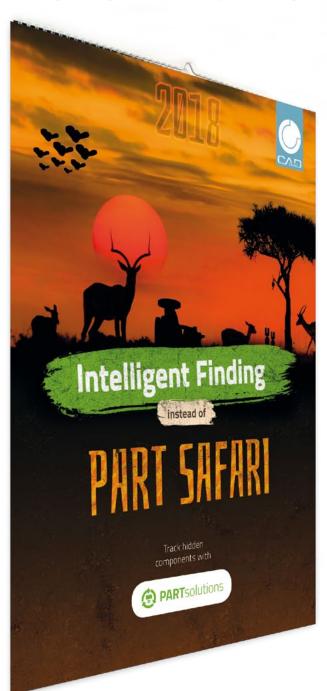
Find the 3D CAD download portal of Grasscalm at: https://grasscalm.partcommunity.com



The entire success story can be found at: http://bit.ly/2HBqKB5



So that it will no longer be a case of luck in the future to set your eyes on the component you're looking for, CADENAS opens completely new possibilities for the intelligent finding of product information as well as CAD data of standard, purchased and own parts. The search functions have been optimized especially to meet the needs of engineers and purchasers, enabling the intelligent finding of the required components through intuitive operation.



Enormous hidden potential is waiting for you! Go for it and find hidden data. With PARTsolutions and its numerous functions, you facilitate the work of your employees and save not only time but also costs.



Download at:

https://www.cadenas.de/files/cadenas/ Downloads/PDF/Uploads/EN/2018_ wandkalender_psol_EN.pdf







The eCATALOG solutions calendar 2018 is delivered with coloured post-its...

 \dots and is thus flexible – just like the CADENAS software solution eCATALOGsolutions for the creation of electronic CAD product catalogs: Access to all current data, which can be successfully marketed worldwide around the clock.



Download at:

https://www.cadenas.de/files/cadenas/ Downloads/PDF/Uploads/DE/ 2018_wandplaner_ecat.pdf

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CADENAS GmbH Setting Standards

CADENAS is a leading software manufacturer in the areas of Strategic Parts Management and parts reduction (PARTsolutions) as well as Electronic CAD Product Catalog (eCATALOGsolutions).

With its tailor-made software solutions, the company provides a link between component manufacturers and their products as well as their customers.

The name CADENAS (span. process chains) has stood for success, creativity, consultation and process optimization since 1992, with 320 employees at 17 international locations.

CADENAS has established many important innovations and trends in the role of initiator and pioneer.

PARTsolutions innovations:

- PURCHINEERING 2.0: Optimized cooperation between purchase and engineering, including automatic background service to avoid creating new part unnecessarily
- Find components in an intelligent way: Geometric Similarity Search, 2D Sketch Search, Topology Search, Cloud Navigator Search, Unmachined Part Search, Color Search, Partial Search and many more
- Classification 2.0: Parametric reference model instead of manual classification

eCATALOGsolutions innovations:

- Multi CAD solutions with native & intelligent engineering data
- PARTcommunity Embedded Seamless integration of a 3D CAD model download portal into the company's websites
- Smart Sales Offering the right product, to the right person, at the right time and the right place
- 3D CAD models app mobile access to millions of standards & purchase parts
- BIMcatalogs.net: Worldwide marketing of your components to architects, engineers and planners
- Support of augmented reality and virtual reality



CADENAS unites

manufacturers & suppliers of components with the industry!

L²2

deposition of the best of the



eCATALOGsolutions

CADENAS solutions for manufacturers & suppliers of components

The Electronic Product Catalog



The software solution to create and promote Electronic CAD Product Catalogs.

The Intelligent CAD Models



More than geometry: Optimal product and engineering data with the maximum comfort and functionality.

The Smart Sales Solution



Know who and where your customers are: Offer products at the right time, right place and to the right people.

The Vertical Marketplaces



Numerous online marketplaces with millions of users to multiply your Electronic CAD Product Catalog.

BIMcatalogs.net



Electronic Product Catalog for the architectural sector.

PARTsolutions

CADENAS solutions for industrial buyers of components

The Strategic Parts Management

Sustainable cost reduction of standard, supplier and company parts for engineers and purchasers.



The Geometric Similarity Search

Find available CAD geometries in a smart way and classify them semi-automatically.



The Supplier Portal

The platform improves the communication to external suppliers.



The PURCHINEERING Concept

Improves the cooperation between purchasing and engineering.





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