



## CUSTOMER MAGAZINE

# JOINT SUCCESS 2014

SUCCESSFUL PROJECTS  
NEWS  
EVENTS  
AND MUCH MORE



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BALLUFF



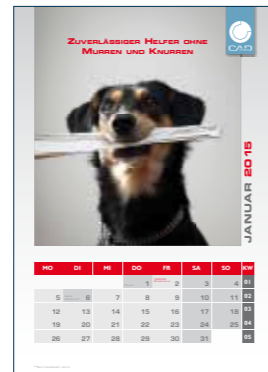
# CADENAS

## Wall Calendar 2015



With CADENAS eCATALOGsolutions you provide your product data in a way that engineers can integrate them perfectly and without big effort into their design.

This way you offer engineers maximum convenience and functionality.

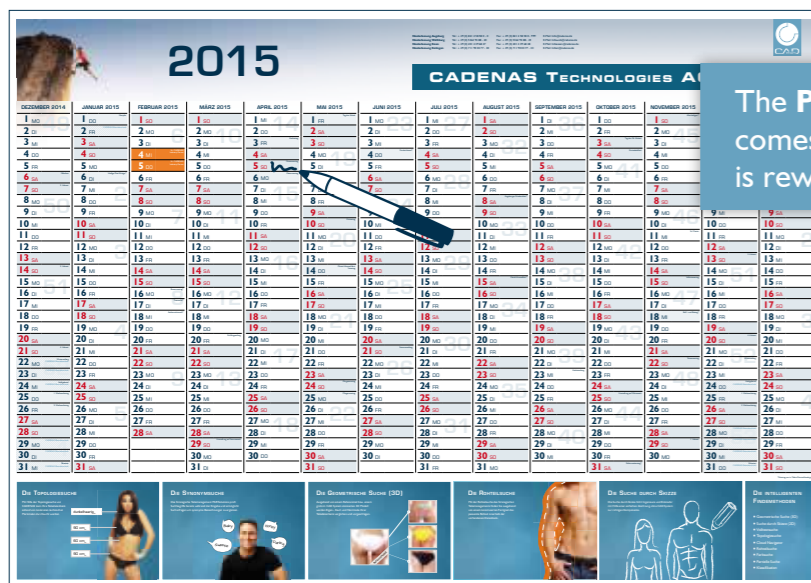


Download from:  
[www.cadenas.de/kalender/ecatalogsolutions-2015](http://www.cadenas.de/kalender/ecatalogsolutions-2015)



The sole geometry of a part is not sufficient for an engineer. The meta data of the components is just as important. These allow, (i.e.), the possibility to test motion sequences already in the CAD system and regard information like: centers of mass, materials or environmental standards in the product development.

**A huge hidden potential is waiting on you! Get started and make your Electronic Product Catalog an indispensable tool for engineers and purchasers.**



The PARTSolutions calendar 2015 comes with a whiteboard marker and is rewritable....

...and thus very flexible – just like CADENAS Strategic Parts Management that offers access to standard and supplier parts of different renowned manufacturers with its intelligent finding methods.

Download from:  
[www.cadenas.de/kalender/partsolutions-2015](http://www.cadenas.de/kalender/partsolutions-2015)



You haven't got a CADENAS calendar hanging on your wall yet? Then use this opportunity and write an email with the subject »eCATALOGsolutions Calendar 2015« or »PARTSolutions Calendar 2015« to [Marketing@cadenas.de](mailto:Marketing@cadenas.de). We will send you your personal copy, while supply lasts.

## EDITORIAL

That was 2014!

Dear CADENAS customer and partner,

This past CADENAS year was under the heading "Intelligent Finding". Did you know an engineer invests 27% of their time and thus 10 years of their working life looking for information?

This fact drove us in the past year to further improve, automatize, accelerate and optimize the locating of technical information. Here we are also world champions.

Since 2014 engineers have been provided with the parametric full text search and the new filter assistants, for instance. And the already existing search functions have been further developed: the Geometric Similarity Search now compares over one million components according to their geometric similarity in less than 5 seconds!

When looking at the coming year 2015, we are happy that version 10 of the Strategic Parts Management PARTSolutions is already now close to being released. It will come with many breakthrough innovations and improvements and will simplify the handling with a partly new surface.

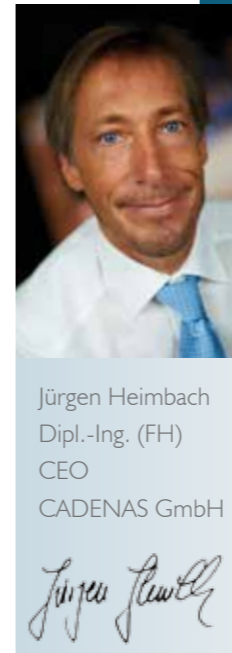
Another highlight of PARTSolutions V10 will be the integrated PURCH-INTEGRING 2.0 analysis. This new feature automatically searches for optimization possibilities in the existing engineering database. Among them important information, such as: are preferred suppliers used, is a similar supplier part already available or was a similar part generated in the company

and answering the make or buy question. Soon-to-be, all this information will automatically be sent to the responsible person in the company.

There was also a lot going on in the field of Electronic Product Catalogs in 2014: The PARTCommunity 3D CAD model app won the automation app award 2014 in the category "Catalog".

Moreover, CADENAS started the initiative "Smart Parts – Intelligent components". It helps to bring together component manufacturers and the manufacturing industry to ensure more intelligent CAD models are available with electronic product catalogs. The central question is, which information engineers of 3D CAD models will need in the future to be effectively supported in their designs. Added value has priority for both sides.

In this customer magazine we will give you an overview of the numerous CADENAS innovations of 2014 and insights into many successful projects with our customers and partners. We would hereby like to thank you for the excellent cooperation and the confidence placed in us in the past year.

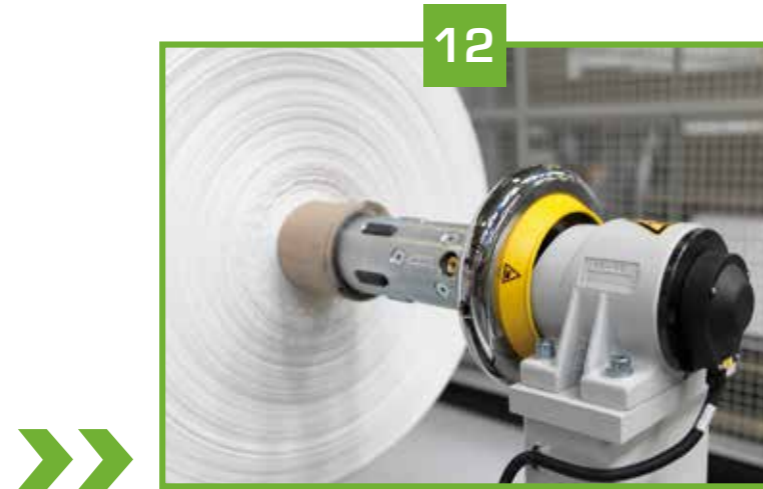


Jürgen Heimbach  
 Dipl.-Ing. (FH)  
 CEO  
 CADENAS GmbH



# CONTENTS

- 3 Editorial
- 4 Table of Contents
- 6 The CADENAS year 2014



## PARTSOLUTIONS

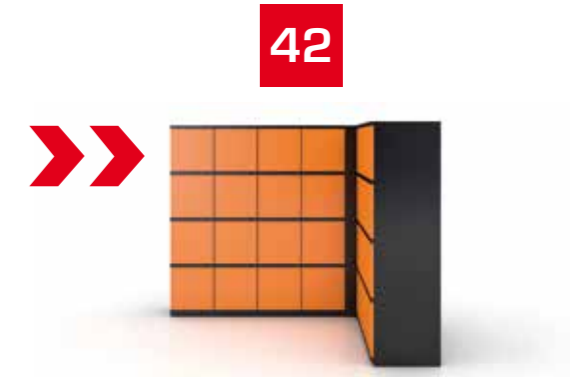
- 12 Starlinger GmbH & Co. KG
- 16 Maschinenfabrik Gustav Eirich GmbH & Co KG
- 19 Capvidia start up cooperation with CADENAS
- 20 Effectively classify standard parts
- 22 CIDEON Holding GmbH & Co. KG



- 24 Aerospace Industries Association of America, Inc.
- 26 PARTsolutions Version 9.8
- 30 Engineering Newcomer Award 2014
- 32 Austrian Standard Parts Award
- 36 Maverick Buying

## eCATALOGSOLUTIONS

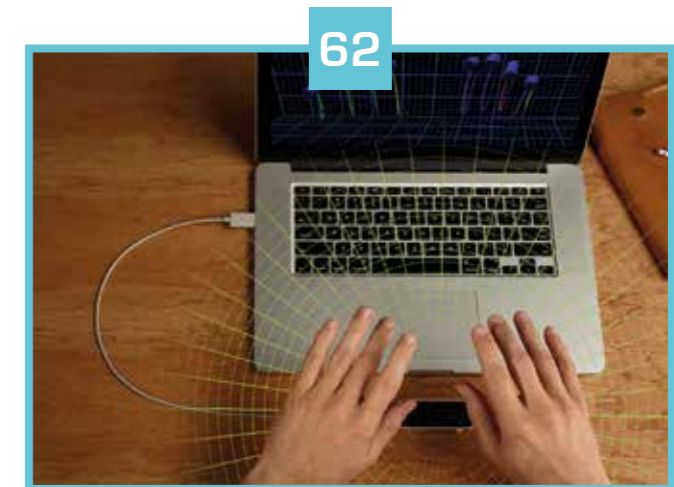
- 38 3D CAD models app for Solid Edge
- 40 Festo AG & Co. KG
- 42 Lista Office AG
- 43 HALFEN GmbH
- 45 Andreas Maier GmbH & Co. KG
- 46 Balluff GmbH
- 47 PFA Inc.
- 48 AHP Merkle GmbH



- 50 3D CAD models app version 3.0.4
- 51 PARTcommunity mobile webapp
- 52 PARTcommunity 3.0
- 54 PARTcommunity embedded technology
- 56 Survey results: Is your customer king?
- 58 Industry Marketing
- 60 Mobile Internet

## PARTCLOUD

- 62 3D Printing & 3D Model Sharing
- 64 3D PARTcloud Sharing Challenge



# THE CADENAS YEAR 2014



»TRADE FAIRS·FORUMS·COMPETITIONS«

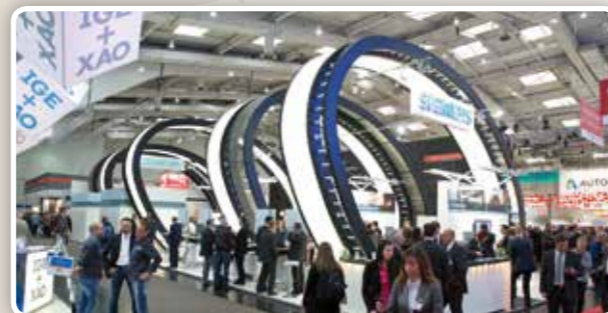
## ZUKEN INNOVATION WORLD

Under the motto "Power of Innovation" CADENAS took part as an exhibitor this year with the topic "Find and select electronic parts libraries".



## HMI WITH SIEMENS

At the Hanover fair in April the exhibition stand of Siemens and CADENAS was a real eye-catcher once again. There CADENAS introduced its solutions for implementing a PURCHINEERING concept with the Strategic Parts Management PARTsolutions



## CIMES WITH LINKABLE

In June Linkable, the strategic partner of CADENAS in China, introduced the software solutions of PARTsolutions and eCATALOGsolutions as well as their innovations at the CIMES in Beijing.

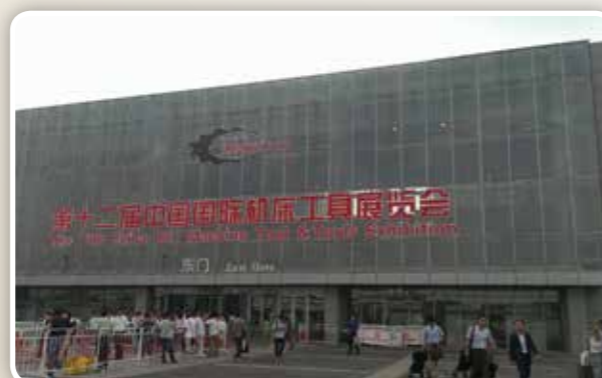


## APPLIED TECHNOLOGY COLLEGE

At the end of October CADENAS set a precedent giving mechanical engineering students at the Applied Technology College of the Soochow University in Kunshan, China, realistic insights into the requirements of their future job. In their presentation, Yi Lan and Linzhi Hu from CADENAS illustrated the possibilities that Electronic Product Catalogs and the Strategic Parts Management PARTsolutions offer.

## CIO-FORUM

Linkable, CADENAS' strategic partner in China, received the "2013 China Manufacturing Outstanding Supplier of 3D Part Library" award for CADENAS eCATALOGsolutions technology at this year's CIO Forum at the CIMES in Beijing.



## CADENAS ITALIANA SOLUTIONS FORUM

In June CADENAS Italiana organized their exclusive Solutions Forum in the Casa Vinicola Zonin in Gambellara for the 5th time, with more than 70 expert visitors and numerous exciting best practice presentations.



## MOTEK

Together with Afag and eps CADENAS presented once again at the Motek in Stuttgart, Germany in October. The fair visitors can convince themselves how easy and comfortable the handling and use of 3D components can be.



## SPS IPC DRIVES

At the sps ipc drives 2014 in Nuremberg, Germany, the specialist medium "elektro-technik" awarded the best company apps in automation in four categories for the third time.



CADENAS' PARTCommunity 3D CAD models app struck gold at the automation app award 2014 and achieved first place in the category "catalog".



At the end of October, after weeks of high excitement, the three winners of the "Engineering Newcomer" challenge were finally selected at the norelem trade fair booth at the Motek.



Michael Schikorra, from the technical college in Mühlhausen, achieved first place with his design of a standardized welding device for transport rack bottoms.



Alexandra Ladwein and Marius Hanold from the University in Heilbronn achieved 2nd place with their design for semi-automatic welding of fixing brackets.



The team of Christian Stern and Andreas Bruhn from the Carl-Benz-Schule in Karlsruhe achieved 3rd place with their design of a trade fair scooter operated with a cordless screwdriver.

» more on page 30

## SIEMENS PLM EUROPE

At the beginning of October the SIEMENS User Conference was held in Berlin for decision makers, users and service providers for PLM topics. This is where CADENAS presented its innovative solutions for implementing the PURCHASING concept with the Strategic Parts Management PARTsolutions.



## FAKUMA

In October CADENAS Italiana presented itself at FAKUMA in Friedrichshafen, Germany together with Pedrotti. With CADENAS' trade fair entertainment package, the manufacturer for molding profiles and accessories for injection-molding, pressure die-casting, punching and thermoforming mold tools skillfully presented its products. The visitors were able to move the 3D CAD models themselves with the Kinect Controller on an xbox.

## CADENAS SUMMER FESTIVAL

During the summer festival at the Fribbe open-air pool in Augsburg, the employees of CADENAS once again demonstrated their full commitment in the beach volleyball tournament, inspite of tropical temperatures...



Adrenaline in the blood and a glass of champagne in the hand - that is what winners look like. They were not only be happy about standing on the winner's podium, but also about a trophy.



...and in the evening it was time for: Relaxing & a cosy gathering with friends and colleagues around a crackling bonfire.



## INDUSTRY-FORUM

The Industry-Forum in February once again attracted numerous visitors to come to Augsburg, Germany with its exciting presentations, workshops and inspiring conversations about the newest trends and developments in this sector.



Also practical applications were not neglected: Visitors thronged to the trade-show booths of the exhibitors as well as to the interactive workshops.



At the evening events, the participants not only looked forward to the soccer event 2014 but also to their next beach holiday. GESTRANDET, Augsburg's Indoor Beachclub, offered a lavish summer feeling with delicious cocktails, a solid beach BBQ and around 400 tons of the finest, heated quartz sand.

# PARTsolutions at Starlinger

LONG TERM COST SAVINGS WITH THE STRATEGIC PARTS MANAGEMENT  
PARTSOLUTIONS AT THE STARLINGER GMBH



## HIGH REUSE RATE OF PARTS IN PRODUCT DEVELOPMENT DUE TO PARTSOLUTIONS

Starlinger & Co. GmbH is the world market leader in the field of machinery and process technology for woven plastic sack production. The company, with its headquarters in Vienna and production in Lower Austria, has been operating on the global market for 45 years, has 550 employees and serves customers in 136 countries. The Starlinger product range covers all types of machinery for the production of modern woven polypropylene sacks. The company has a wide spectrum of production processes. Since 2011 Starlinger has been counting on CADENAS' Strategic Parts Management PARTsolutions.

The software solution PARTsolutions is used to quickly and easily find CAD components in the company, manage

them and also reduce their amount thus saving costs in the long term. Moreover PARTsolutions is optimized to promote a closer cooperation between procurement and engineering. For this purpose the solution offers both departments access to all technical and economic parts information. This strategy pursued by CADENAS is called PURCHINEERING, which combines the words "purchase" and "engineering".



»Starlinger's main target was to force the product standardization in the field of B and C parts and thus continue to offer customers products with high customizing at an favorable price.«

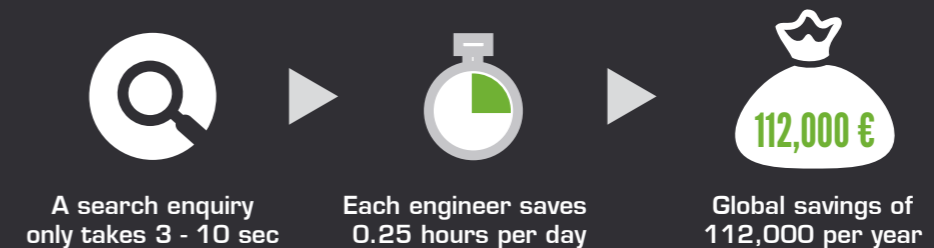
RAIMUND HORVATH,  
RESPONSIBLE FOR ORGANISATION DEVELOPMENT  
AND PROCESS OPTIMIZATION AT STARLINGER

## INITIAL SITUATION AT STARLINGER

Before PARTsolutions was introduced, parts were determined with a solely text-based search in the ERP and PDM system. Through the organisational separation in different product areas, Starlinger needed a parts management system that allows logistical control at an early stage of the development process and thus makes the best use of economies of scale and learning curves.

## More efficiency through PARTsolutions!

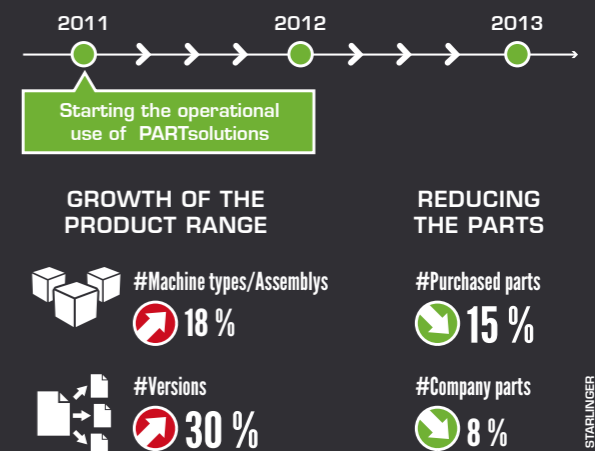
### CADENAS GEOsearch



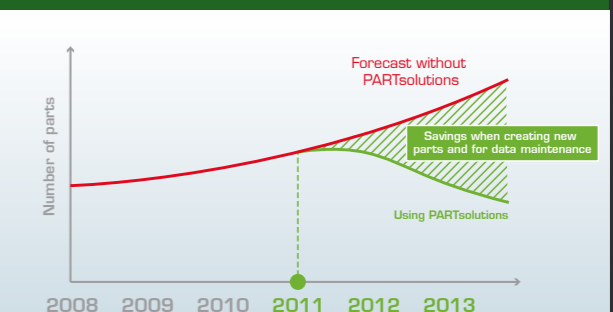
## INTERESTING FIGURES ABOUT STARLINGER AT A GLANCE:

- ➔ 550 employees generate an annual turnover of 150 million Euros
- ➔ 45 workstations are equipped with the strategic parts management PARTsolutions
- ➔ 45,000 looms have been installed worldwide so far
- ➔ Founded in 1835, Starlinger has more than 175 years of experience
- ➔ More than 900 customers in 136 countries rely on concepts of Starlinger
- ➔ Number one in technology and world market leader for more than three decades

## Cost savings through PARTsolutions



## Reduced Parts Creation



### THE DECISION FOR PARTSOLUTIONS

The decisive factor for choosing CADENAS' PARTsolutions is in particular the holistic approach of the Strategic Parts Management:

"We were looking for an all-encompassing solution that's not only a 'slingshot for geometries' or a 'search tool'. Specially the combination of these features together with the possibility to classify and label parts is a decisive benefit when developing new products", says Raimund Horvath. "Originally it was planned to optimize the quality of the master data and avoid duplicate copies. But in the course of the process it turned out that the biggest benefit is the possibility to logistically control the development."

PARTsolutions is primarily used in the research and development field as well as in the logistic sector at Starlinger. It is also planned to soon use it in the customer service center.

### PARTSOLUTIONS INTEGRATION INTO THE STARLINGER SYSTEM ENVIRONMENT

At Starlinger nearly 45 work stations have access to PARTsolutions.

"In the course of introducing PARTsolutions, three challenges were perfectly mastered: First of all, it was necessary to connect the parts management to the different internally used software systems and create interfaces between the CAD and PDM areas and the PART-dataManager. Afterwards the system had to be filled with the existing data. Finally after the technical implementation, a training of the Starlinger employees ensured that the new possibilities of the



parts management are actually used in the daily work", says Horvath. "Special mention should be made of the very fast implementation and the great support by CADENAS Austria."

### SUPPORT BY PARTSOLUTIONS

Significant changes have been noticed since the introduction of PARTsolutions – Karl Rippel, managing director of CADENAS Austria explains: "Starlinger is using the search possibilities of PARTsolutions extensively consistently especially the Geometric Similarity Search. GEOsearch shows the possible parts and assembly groups within seconds and offers the meta data from the ERP and PLM system which necessary for selection, at a glance. The engineer is thus spared the tedious search in different systems. Moreover, since the introduction of PARTsolutions at Starlinger, no more unnecessary parts are created, accordingly the reuse of parts has massively increased. The time needed for the geometric search is between three and ten seconds, depending on the search area. The acceptance of the solution in the design was decisive for the project success. This in turn was mainly due to high quality search result and very low search effort."

On average, every engineer saves at least 15 minutes of working time daily due to better search possibilities and 3D catalogs. At an hourly rate of 50 Euros this results in labor cost savings of 112,000 Euros per year.

### PARTSOLUTIONS IN THE QUOTATION COSTING

Prior to the actual calculation of a new machine, PARTsolutions is used for a rough calculation with the prices of similar parts. This way Starlinger can estimate prior to the preliminary costing (design, drawing department etc.) whether the effort for new installation will pay off and can react at a very early stage.

### PARTSOLUTIONS IN PROCUREMENT AND CONTROLLING

Like in many other manufacturing companies, drawing parts are mainly bought by Starlinger. Intensively complex and innovative parts are produced by the company itself. Since the beginning of 2013, PARTsolutions has been used intensively in the procurement and logistic sector.

### REPLACING DESIGN PARTS BY CATALOG PARTS

By using the numerous Electronic Product Catalogs of CADENAS and including the Geometric Similarity Search GEOsearch, design parts could be replaced by catalog parts. In the mechanical engineering catalog, parts are on average ten times cheaper than design parts.

### SAVINGS ALTOGETHER:

The complete savings that result from reduced parts diversity can only be estimated roughly, since the growth of creating new parts without PARTsolutions can only be extrapolated due to the historical development. In absolute numbers the new creation of A and Z parts was reduced by approx. 1,100 parts during the measurement period. With estimated process costs of approx. 700 Euros and annual maintenance costs of approx. 100 Euros,

the absolute savings due to reducing the new creation of parts and increased reuse of parts amounts to about one million Euros compared to the forecast curve.

### PLANNED MUTUAL PROJECTS

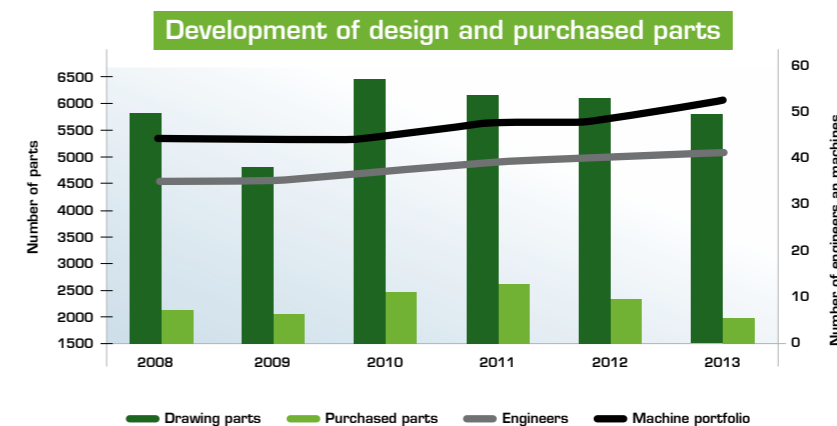
A further upgrade to the new version of PARTsolutions is already scheduled at Starlinger. Especially the function range of the Strategic Parts Management should be extended further. For instance, price comparisons should be made easier and faster. Also Starlinger will increasingly place their focus on the PURCHINEERING area in the future to further maintain their great advantage over the international competition.

### CONCLUSION: INCREASING EFFICIENCY AND COST SAVINGS

Related to the complete project, Horvath draws the following conclusion:

"Creating new design parts was reduced by more than ten percent since the introduction of PARTsolutions. Despite a significantly increased amount of engineers and development projects, the amount of newly created design parts was kept constant and even decreased somewhat. Our internal processes have significantly improved through PARTsolutions, especially in the field of article creation and parts search. Especially the considerably enhanced quality of master data, the increased reuse of standard parts, the decrease to a few selected suppliers and the better use of preferred rows needs to be emphasized."

The complete success story can be found at: [www.cadenas.de/partsolutions/customers/success-stories#Starlinger](http://www.cadenas.de/partsolutions/customers/success-stories#Starlinger)



### STARLINGER IN FIGURES

- Annual turnover: 150 million Euros
- Employees: 550 worldwide
- Customers: more than 900 in 136 countries
- PARTsolutions workstations: 45 and increasing







## PARTsolutions reduces design times and costs for creating new parts at EIRICH

PARTSOLUTIONS REDUCES DESIGN TIMES AND COSTS FOR CREATING NEW PARTS AT EIRICH

### EFFICIENT SEARCH FUNCTIONS REDUCE PRODUCT COSTS

CADENAS' Strategic Parts Management PARTsolutions supports EIRICH machines to find CAD components faster and easier, avoid duplicate copies and manage CAD designs in a simpler way. Internally designed parts can also be integrated into PARTsolutions and can be managed within the system. With this function costs can be reduced in the long term. PARTsolutions helps to reduce the product costs already in the design and development phase by

means of an efficient management of components or their CAD models and with an effective search function.

### INITIAL SITUATION AND INTRODUCTION OF PARTSOLUTIONS

At the beginning of the year 2000, 3D CAD software solutions became increasingly popular in design engineering, thus the management of CAD components had to be redesigned radically.

### THE COMPANY

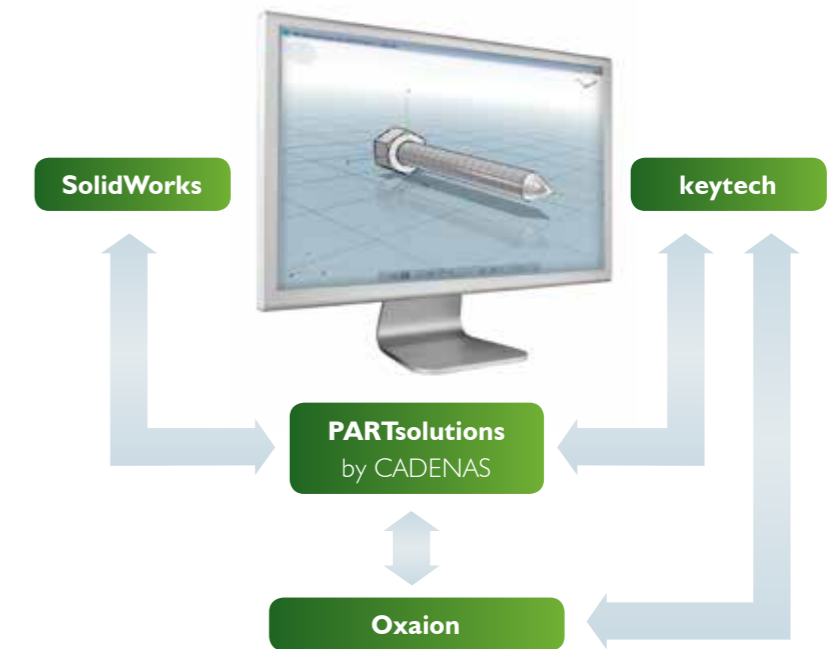
Maschinenfabrik Gustav Eirich GmbH & Co KG supplies an extensive range of industrial material processing solutions worldwide. Mixing and fine grinding technologies, with a know-how of more than 150 years of close cooperation with companies of the user industry and universities, make up the company's core portfolio.

At EIRICH this resulted in a variety of new questions and requirements for a future parts management system:

- Complete library of 3D standard parts according to DIN, DIN EN, DIN EN ISO, DIN ISO
- Maintaining standard parts library to eliminate or update obsolete and invalid parts
- Convenient searching for standard parts
- Integration of a standard part library
- Availability of 2D derivations
- Integration of supplier catalogs
- Integration of parts numbers, materials, etc.
- Transferability of parts directly into the BOM
- Integrability of existing software solutions like Oxaion, keytech, SolidWorks

After the first tests of PARTsolutions application at EIRICH and a comparison to other software providers on the market, the decision was finally made to test CADENAS parts management more thoroughly. Throughout the preparation phase of introducing PARTsolutions there was an excellent cooperation between CADENAS and EIRICH. Eventually PARTsolutions was installed on a trial basis to determine if problems with other systems or processes would occur in the test scenario.

The introduction of PARTsolutions meant considerable changes for the employees in the design department at EIRICH. Due to 10 years of constant and comprehensive support by CADENAS, the software manufacturer from Augsburg, PARTsolutions became an integral part of every day work and is apprecia-



ted by all employees. The continuous, close cooperation between EIRICH and CADENAS made it possible that the software solution could continuously be adapted and optimized to the new requirements at EIRICH.

The Strategic Parts Management PARTsolutions is used exclusively in the mechanical design department at EIRICH. Where about 30 employees use the software as a model library with allocated parts numbers.

### INTEGRATION OF PARTSOLUTIONS INTO THE EXISTING SOFTWARE ENVIRONMENT

CADENAS' Strategic Parts Management software interfaces directly to the many software solutions already in use at EIRICH. This interaction between the 3D CAD system SolidWorks, the PLM system keytech, the ERP System Oxaion and PARTsolutions allows the optimization of corporate processes and offers all engineers complete and up-to-date component information.



»CADENAS' Strategic Parts Management did not leave any questions unanswered and the price-performance ratio was excellent. Therefore we decided to introduce PARTsolutions for our complete mechanical design in 2004.«

SIEGFRIED ENGLERT,  
MANAGER OF IT AND THE STANDARDIZATION DEPARTMENT  
MASCHINENFABRIK GUSTAV EIRICH GMBH & CO KG

## PARTS WORLD OF EIRICH

At EIRICH about 40,000 standard and supplier parts are managed by PARTsolutions and can be uploaded easily into the 3D CAD system SolidWorks by Dassault.

## BENEFITS

With CADENAS' Strategic Parts Management system, the search times for supplier and self-designed parts are significantly reduced at EIRICH, decreasing design time and costs. PARTsolutions allows a better view of the available products in a supplier's range, and gives engineers an insight into the product diversity of the desired part.

Internal processes can be created, accelerated and be less prone to errors. Supplier parts are updated on a regular basis, keeping component models up to date. This prevents discrepancies between the CAD models and the actual products that are used later.

With the ability to add new supplier parts into the system, the total amount of parts at EIRICH has not decreased since PARTsolutions was introduced, but this was never the target of the software introduction. The reason for the increase of parts is that EIRICH constantly develops new machines for which new parts are required.

## PROJECT IN FIGURES

- Since 2004 cooperation with CADENAS
- 40,000 standard and supplier parts are managed with PARTsolutions

- 30 PARTsolutions work stations
- Approx. 50 EUR savings per newly created part



»Without using PARTsolutions the growth of new parts would have probably been much higher. PARTsolutions provides a simple control to recognize duplicate part copies at an early stage and avoid them, especially when deploying standard and supplier parts.«

MARTIN FISCHER  
TECHNICAL CONSULTANT STANDARDIZATION DEPARTMENT  
MASCHINENFABRIK GUSTAV EIRICH GMBH & CO KG



## MUTUALLY PLANNED PROJECTS

To date not all functions of PARTsolutions are in use at EIRICH. The company plans to make use of the Strategic Parts Management automation features more effectively in the future. According to their strategic plan, EIRICH will stay current with the evolving versions of PARTsolutions software, well into the future. The platform will be periodically

audited to ensure it's harmony with the entire software environment.

The Maschinenfabrik Gustav Eirich strives to replicate their success, using the same software solutions worldwide; therefore there are current plans about a global launch of PARTsolutions.

The complete success story can be found at: [www.cadenas.de/partsolutions/customers/success-stories#eirich](http://www.cadenas.de/partsolutions/customers/success-stories#eirich)



# Capvidia

## establishes cooperation with CADENAS

CADENAS PARTSOLUTIONS IS EXTENDED WITH CAPVIDIA FUNCTIONS

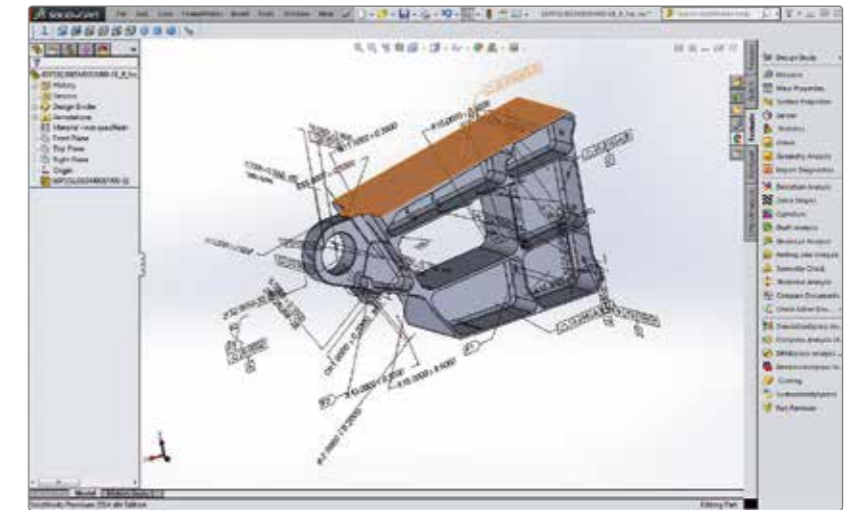
CAPVIDIA, a world leader in 3D engineering software, announces a newly established cooperation with CADENAS GmbH, a world market leader for standard parts software solutions.

The CADENAS flagship software product PARTsolutions for parts management will be extended by Capvidia's "Feature Recognition", "3D CAD Data Exchange, Repair and Healing", as well "Reverse Engineering" capabilities.

PARTsolutions is the answer for engineering and purchasing to easily find components and standard parts. The software helps to reduce and control part inventories and moreover cut down production costs considerably during the design phase, allowing coming to a "make or buy" decision quickly and efficiently.

### CAPVIDIA FUNCTIONALITY INTEGRATED IN PARTSOLUTIONS

The CAPVIDIA functionality will be integrated for the CADENAS PARTsolutions suit to provide a broad access to PMI (Product Manufacturing Information) and 3D model feature definition, by analyzing the 3D model (BREP representation) and automatically identifying entities such as: cylinders, cones, planes, cylindrical segments, elongated cylinders, arcs, lines, opposite planes, etc. (over 20 different features are automatically recognized) and linked with the information from the PMI defining feature characteristics such



as: circularity, concentricity, angularity, parallelism, flatness, perpendicularity, etc. The feature and characteristic information is easily accessible over open XML based QIF/ CAPXML file format.

Further more the 3D CAD Data Exchange capabilities of CADENAS' PARTsolutions software, will be extended by powerful repair and healing algorithms from CAPVIDIA.

### POWERFUL CAPVIDIA REPAIR AND HEALING ALGORITHMS

Capvidia CEO Tomasz Luniewski, comments: "The cooperation with CADENAS as the world market leader of standard part catalog solutions is an important milestone for CAPVIDIA. Through this partnership the CADENAS PARTsolutions user will have an important advantage, when analyzing 3D CAD data and processing them in their workflows."

And Jürgen Heimbach, CEO of CADENAS adds: "With the implementation of the very innovative and unique CAPVIDIA feature and characteristic detection capabilities that we providing for our PARTsolutions users, it is possible to accelerate the decision process to 'make or buy' significantly."

More information on the Strategic Parts Management PARTsolutions can be found at: [www.cadenas.de/strategic-partsmanagement](http://www.cadenas.de/strategic-partsmanagement)





## Standard Part Classification Systems: An Incomplete Solution

HOW INDUSTRIAL MANUFACTURERS CAN AVOID THE USUAL STANDARD PART CLASSIFICATION PITFALLS

Considering the vast number of components in an average manufacturing company's parts library and the amount of people who access it, it's no wonder why problems of confusion and parts mismanagement arise. For most, the solution appears to be straightforward, create a simple classification system based on physical features of the parts. However, upon more analysis, implementation of these systems run into problems such as subjective categories, inconvenient search processes, and limited integration into other operational aspects. Trying to conceptualize how to begin to classify such a vast number of parts can make anyone's head spin, and eventually the conclusion will be drawn that your classification project will fail, or get to a point of diminishing return.

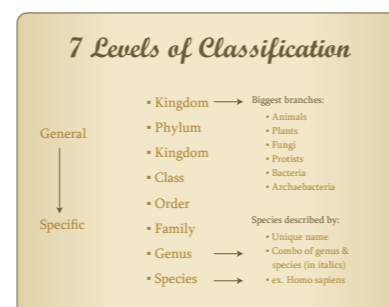
Classification systems are everywhere in everyday life, and have been essential to anyone who has organized anything. The best example is the one that most of us have seen in grade school, and that is Linnaean Taxonomy.

To refresh your memory, this is the

diagram that resembles a tree with the first known (and most basic) organisms on the bottom connected by lines branching out into the many different Kingdoms, Orders, Species and so on that we know today.

Another familiar classification system is the Dewey Decimal System, which categorizes books within libraries by assigning each with a series of numbers corresponding to the nature of the book. In this system, there are 10 different main classes such as Philosophy, Religion, and Social Sciences that all books fall under. Then there is a decimal point, followed by a string of numbers which further categorize the book. By being able to assign each book a code that narrows down to its specific subject, you would theoretically be able to think of a topic then use the system to find books that pertain to that exact topic.

The Linnaean Taxonomy and Dewey Decimal System are structures which are very similar to the current standard part classification features in CAD sys-



tems today. Starting with a relatively small number of main categories, parts are first divided into basic groups and then continually subdivided into smaller more specific groups.

Although there is no universal definition for categorizing parts, there are a few standard part classification systems which are prominently used throughout the industry. Two of these systems are eCI@ss and UNSPSC. The first, eCI@ss, is a very detailed organizational structure while UNSPSC is more of a neutral taxonomy, accounting for classes of products and services but no descriptions. Although there are generally 4 levels to the eCI@ss classification, it begins with 30 different main classes

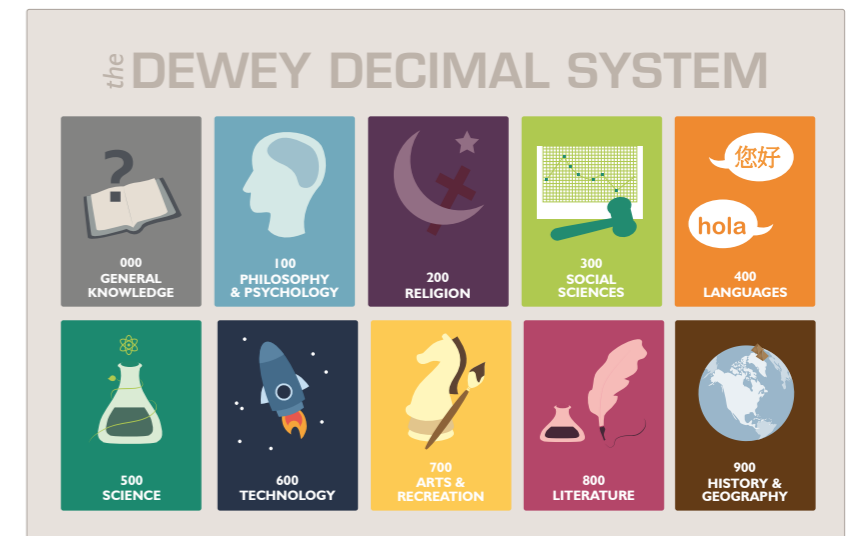
on the top level, and each successive level has multiple choices. With a basic knowledge of mathematics, it is easy to see that the number of different possible categories can get out of control pretty quickly.

EVEN WHEN IT SHOULD BE  
OBVIOUS, THE SOLUTION IS  
NEVER CUT AND DRY

Issues arise when there is a discrepancy in how something should be classified. For example, let's say that a new book on sports medicine is to be entered into a library and assigned a number. Starting with the broadest categories, a problem arises as to whether the book should fall under Technology or Arts/Recreation. What happens when one person's natural reaction is to classify it one way, and another thinks of a different way. This problem will surely arise in your classification project.

Although there can be rules set forward of how to classify from the top down, it may not be intuitive to all employees. If everyone is not on the same thought process on what the layers of classification should be, then there will be time wasted when the employees cannot navigate to a part they have in mind within a timely manner. This is the first reason your classification project will fall short.

Having a classification system that is not intuitive to all employees can make things confusing to learn, but it also makes finding things even harder. Also, a prominent mindset of "If I can find the parts, why shouldn't anyone else be able to?" is hindering effectiveness. Currently the search options are very limited, and are not effective when browsing for a part to fit a design criterion. If a designer has an idea of what



» If you always do what you always did, you will always get what you always got. «

ALBERT EINSTEIN

part they want to use, how do they go about finding it? If it is not a standard nut or bolt, it may not immediately be apparent what path to choose. And if that is the only search option, many times designers would rather just model up the part on their own. This leads to problems in duplicating parts that are already in the system, and not keeping a standard across the company.

Lastly, most standard part classification systems lack of integration into other company processes such as purchasing or inventories. This communication is critical to overall product design, and is costly when a problem is discovered late in development. A program that gives designers the added benefit of seeing whether or not a product is approved before implementation into the design saves time and increases visibility.

So why doesn't everyone use the Dewey Decimal System to deduce where

to find their book in a library? Because it has been replaced by far faster and easier browsing and searching methods on computers found in almost every library. In the engineering world, CAD technology is relatively young, and it takes time for the problems to become overbearing. However, that time is quickly coming, and without an open mind to other possible solutions, the problems of current classification systems will become larger as parts libraries increase. Engineers have longed for a way to find parts quickly, but haven't had the tools to do so until recently.

Luckily, there are new solutions to these issues, offering a combination of classification with sophisticated search methods to provide user-friendly and intuitive parts management.



# Increase reuse of components with CADENAS and CIDEON

## LINKING CADENAS GEOSEARCH TO SAP WITH CIDEON

A consequent reuse of components in companies saves time and money. This target was pursued by the cooperation between CIDEON Software and CADENAS. With the mutual solution, engineers and purchasers can find existing parts in the company quickly and get access to all important component information at the same time.

For this purpose CADENAS' Geometric Similarity Search GEOsearch is augmented with information from the SAP PLM system, which is provided by the SAP PLM CAD integration of CIDEON.

Felix Finster from CIDEON Software talked about the benefits of this mutual solution in his presentation at the CADENAS Industry Forum 2014. CIDEON is an engineering specialist operating worldwide and, as a leading supplier, it supports companies in im-

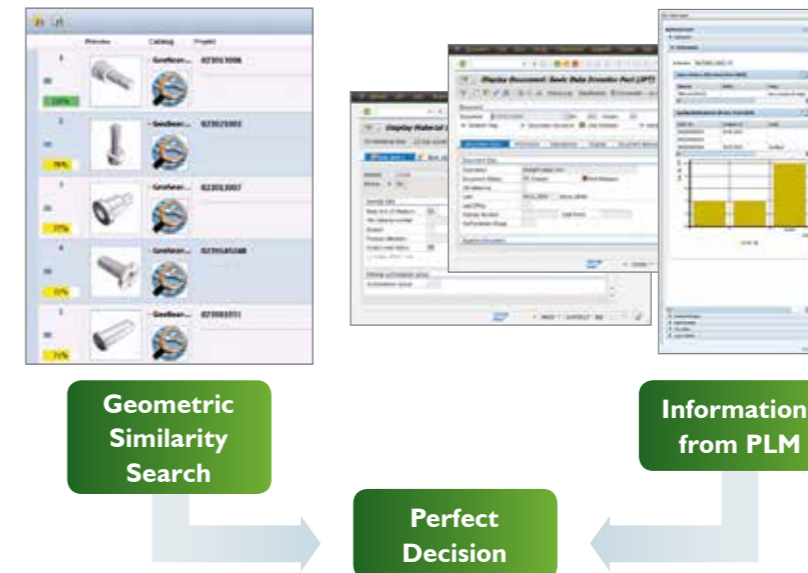
plementing innovations, optimizing engineering processes and thus increasing the performance of companies, customer benefits and the corporate value. Since 1996 the corporate division CIDEON Software has been developing Best in Class SAP PLM direct integration for market leading CAD systems together with SAP.

### RELIABLE PRODUCT LAUNCH DUE TO HIGH REUSE RATE

With an increased reuse of components, time and money can be saved in various company divisions. This leads to a reliable product launch and a very quick time to market.

### SAVINGS:

- **Increased design:**  
New designs are not necessary, neither the administrative tasks involved, such as document management, testing, drafting.
- **More efficient logistics and manufacturing:**  
Information that already exists in the company is used
- **Simpler cost estimation:**  
The costs for existing components are already calculated.



### MAKE COMPONENT SELECTION EASY: FUSION OF GEOSEARCH WITH SAP PLM INFORMATION

The target of a high reuse can be reached if engineers find components that already exists in a company in an easy and simple way. This is supported by CADENAS' Geometric Similarity Search GEOsearch. In contrast to conventional search methods by means of directory structures, classifications or descriptions, the Geometric Similarity Search doesn't need terms, descriptions or classifications. It acts across languages and just uses the pure geometry or the fingerprint of a component to find similar parts in a company. This allows a fast and target-oriented search result.

In consequence, the Geometric Similarity Search CADENAS delivers a clearly arranged result list with the percentual similarity of the geometries. Due to the combination with the CIDEON SAP

PLM integration, important information from SAP PLM in the result list is displayed to engineers and purchasers. This includes, for instance, the information whether the document has already been released, the respective material master list and display of the linked objects and applications.

"CADENAS' Geometric Similarity Search is an excellent supplement to what has been possible in SAP PLM so far", says Felix Finster from CIDEON. "All this information is the basis for a high quality decision for which part should be built into which product."

Purchasers profit from the fact that they can see all the important information and check if all values are correct without a CAD system. On the other hand, engineers can import the desired component directly into the respective CAD system and integrate it into the existing design.

### BENEFITS:

- **Simple similarity search:**  
With the Geometric Similarity Search, engineers and purchasers find parts already existing in the company in a fast and easy way.
- **Custom-fit information:**  
A vast amount of information is provided, including where-used lists, item lists and information about the material master.
- **Individual functionality:**  
Result lists can be pre-qualified by excluding unsuitable results from the beginning.
- **User-friendly:**  
With simple context menus and the "drag & drop" feature, engineers and purchasers get to the desired part with only a few clicks.

"Two technologically sophisticated products merge into a single solution. This provides users custom-fit information and allows use of new search results to SAP PLM", Felix Finster summarizes in his conclusion.

Go to complete presentation :  
<http://www.industry-forum.biz/review/2014/presentations/cideon>



www.cideon.de



## AIA releases digital 3D standards

NATIONAL AEROSPACE STANDARDS CAN BE PROVIDED IN MORE THAN 150 CAD AND GRAPHIC FORMATS

Once in a while, a technology comes along that changes the way we go about doing things for the better. While we used to have collections of records or CDs, we now carry our entire music library in our pocket. Where we used to go to Blockbuster to rent a movie, we now go online to Netflix to watch instantly on-demand.

There are countless consumer examples of revolutionary advancements that have reshaped our lives. In the world of aerospace manufacturing, the introduction and adoption of disruptive technologies often moves at a much slower pace. The impact of innovation is often only realized over an extended period of time.

That's all about to change.

The Aerospace Industries Association (AIA) is taking a giant step forward in revolutionizing the way industry standard parts are authored, distributed, and

consumed. The AIA recently announced that its National Aerospace Standards (NAS) will be available in an authorized digital 3D catalog for the first time, in partnership with global information company, IHS Inc., and Cadenas PARTsolutions. The new 3D digital NAS promise to dramatically increase aerospace engineering and supply chain efficiencies.

"AIA has a long and proud history serving the needs of the aerospace and defense industry through our National Aerospace Standards program," says Marion C. Blakey, AIA president and CEO. "The AIA NAS 3D catalog allows us to provide solutions that will help the industry design and manufacture products faster and at a lower cost."

The aerospace industry and standards developing organizations (SDOs) have been wrestling with how best to address digital interoperability for years. Over the past decade, many digital standar-

dization initiatives have been evaluated, but have been slow to take off.

Rob Zesch, president and COO of CADENAS PARTsolutions LLC, worked closely with the AIA Director of Standardization Chris Carnahan to accelerate the project and make the first aerospace digital 3D standards a reality.

"The AIA is blazing the trail here. It's a huge step for the aerospace industry," says Zesch. "They stepped up and have set the standard for other SDOs to start offering their content in 3D digital format. It's what aerospace manufacturers demand to make their design process as efficient and accurate as possible."

Until now, the AIA NAS have only been available in paper or PDF format, creating challenges for engineers. CADENAS envisions a world where all other industry standards are available in 3D digital format. Zesch shared this vision with the

world's leading SDOs at the Standards Publishing Advisory Board meeting in January and is currently in discussions with several SDOs about bringing their standards into the digital age.

### PLATFORM INDEPENDENCE

The AIA conducted an exhaustive evaluation process prior to selecting CADENAS and its technology platform. The company was chosen from more than 30 vendors to author and publish the NAS digital standards because the output formats are "technology independent," Carnahan told attendees at the recent Diminishing Manufacturing Sources and Material Shortages (DMSMS) conference in Orlando, FL.

"We chose CADENAS mainly because of the capability to produce files that are compatible with so many different formats," Carnahan said.

The NAS 3D digital parts can be output to more than 150 native and neutral CAD and graphic formats, versions and revisions. Digital parts data from CADENAS also integrates with ERP

applications like SAP as well as with the three leading CAD and PLM applications in aerospace and defense: Siemens NX & Teamcenter PLM software; Dassault Systèmes' CATIA & Enovia PLM; and PTC's Creo Parametric and Windchill PLM.

### STANDARD PARTS MANAGEMENT

IHS will distribute the NAS 3D digital catalog to subscribers of its Standards Expert product as well as an available parts catalog within the CADENAS PARTsolutions Standard Parts Management (SPM) platform. The SPM platform interfaces with CAD, PLM, and ERP systems to enable manufacturers to control their industry standard, company standard, and supplier standard parts across their supply chain.

### STANDARD PARTS FALL INTO 3 CATEGORIES:

#### ■ Internal Standards:

Parts you make rather than buy. These are the reusable components that are fabricated and assembled along with purchased parts to make your final product or system.

#### ■ Supplier Standards:

Parts externally sourced and used with other parts in a complete product and bill of materials. For example, parts such as bearings, resistors, cylinders, switches, springs, connectors, and other off-the-shelf items that are typically purchased from a supplier to fulfill standard functions.

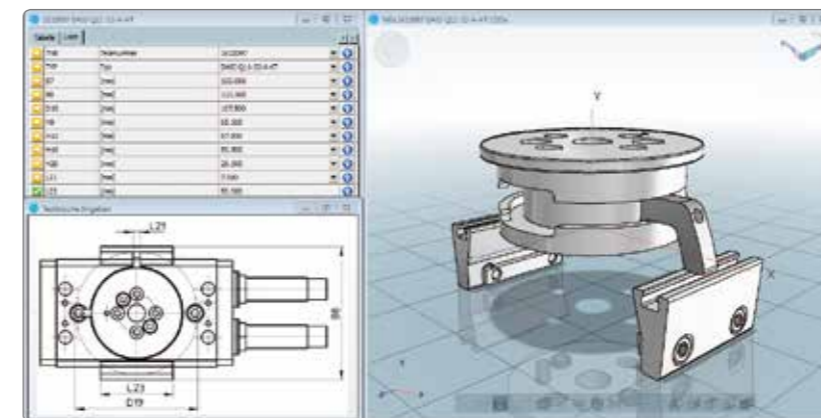
#### ■ Industry Standards:

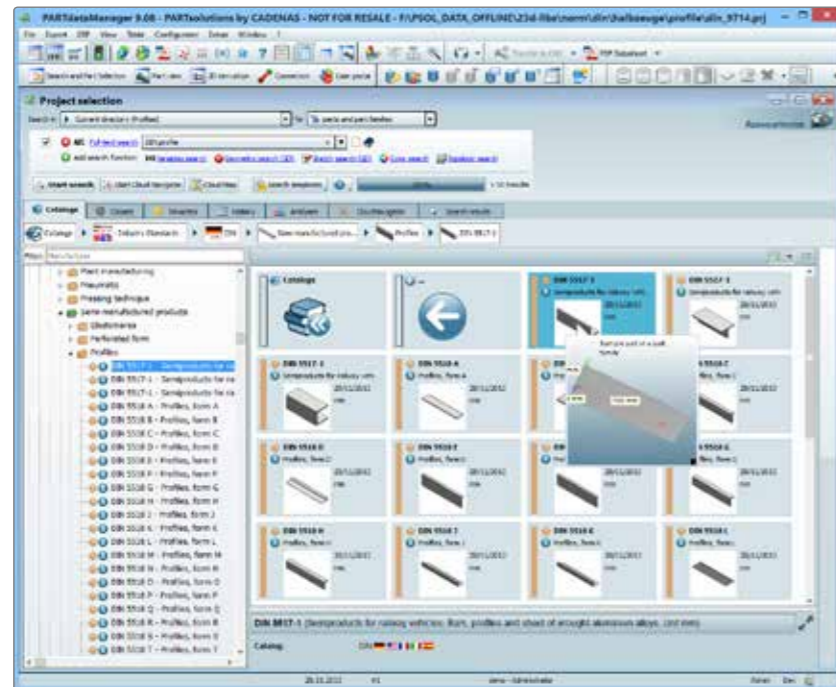
These are parts manufactured in accordance with specifications and inspected for conformance by a standards body such as the AIA. These are usually fasteners such as screws, nuts, and rivets. They represent what is sometimes considered a commodity part and sourced from a variety of suppliers, often driven by price and availability.

Standard parts comprise 40% to 80% of most aerospace and defense products. Having visibility and control of all standard part types is mission-critical for design and manufacturing efficiency.

More information can be found at:

[www.youtube.com/watch?v=LDSgME77qCc](http://www.youtube.com/watch?v=LDSgME77qCc)





## PARTsolutions kicks into gear with version 9.8

CADENAS' STRATEGIC PARTS MANAGEMENT ACCELERATES WORKFLOWS WITH IMPROVEMENTS OF GEOSEARCH, THE FULL-TEXT SEARCH AND THE NEW APPSERVER

CADENAS, software developer from Augsburg, Germany, released the latest version of the Strategic Parts Management PARTsolutions. Version 9.8 is characterized by more speed and better performance.

Highlights are the accelerated intelligent finding functions based on the Geometric Similarity Search GEOsearch, the 2D Sketch-, Topology- and Full-Text search as well as the simplified remote access with a central hosting on the new Application Server web service.

### THE HIGHLIGHTS: MORE INFORMATION AND QUICKER RESULTS

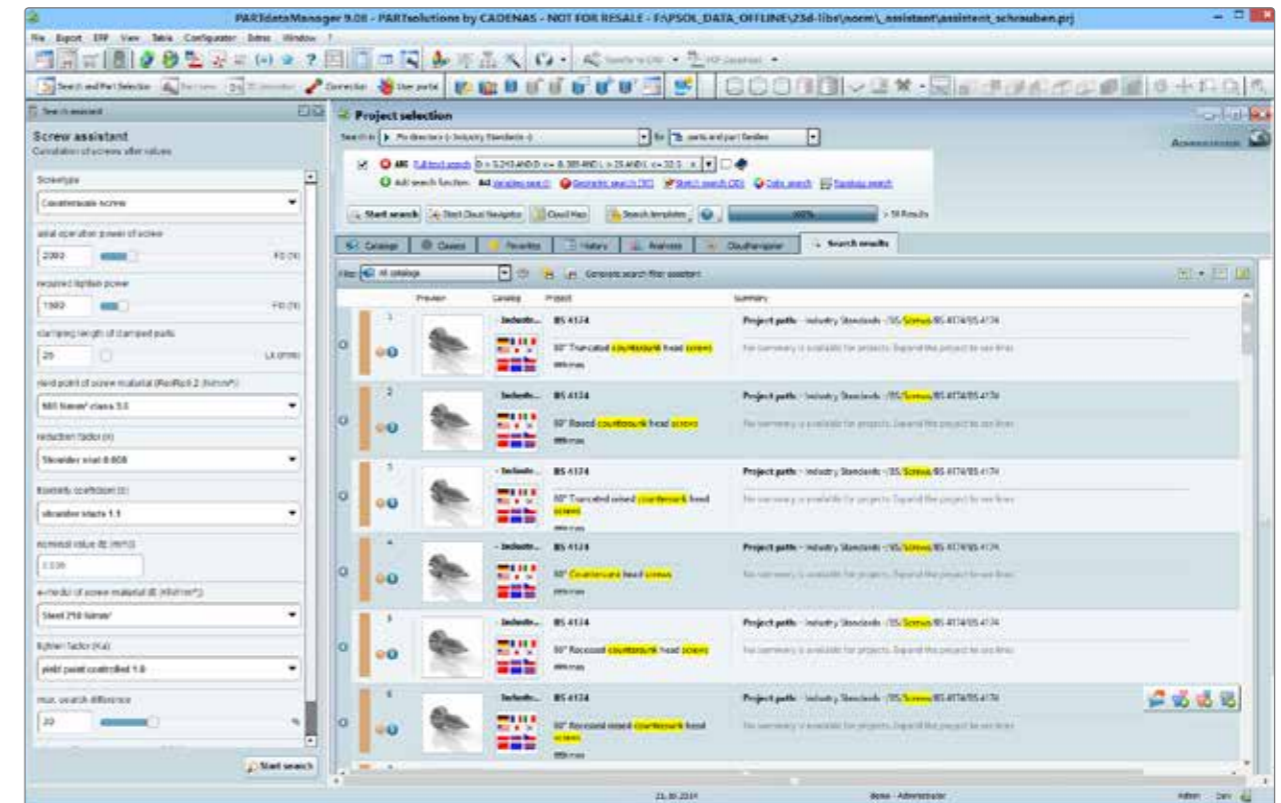
The new version offers numerous improvements for users:

The new PARTsolutions Application Server supplements the central data storage of the catalogs at one site. Moreover the previous search server was integrated into the new AppServer, which means the administration only has to wait through one server process. Also

a much faster use of the software and catalogs is now possible at sites with slower network connections.

The new auto-completion accelerates the Full-text Search up to 50 percent by showing the possible options during entry. Thus the Full-text Search can be handled as simply as the familiar and popular Google Search.

The new search filter assistant allows the user to quickly create search templates for certain part types such as bearings,



screws, etc. with individual search criteria for several parts with unified variables.

The Geometric Similarity Search (3D), the Sketch Search (2D) and the Topology Search also stand out with a performance improved by a factor of 10. Thus users can search 6.5 million parts within 3 seconds and compare them to all available supplier parts of the installed catalogs. It is also possible to quickly draw up an analysis whether a supplier part could be used instead of

an expensive in-house production. On average, supplier parts cost 93% less than internal parts and cause less storage costs. In consequence this new functions offers big saving potentials.

Numerous further improvements were made on these features. For instance, many new export Formats and Interfaces for CAD and PLM programs were added.



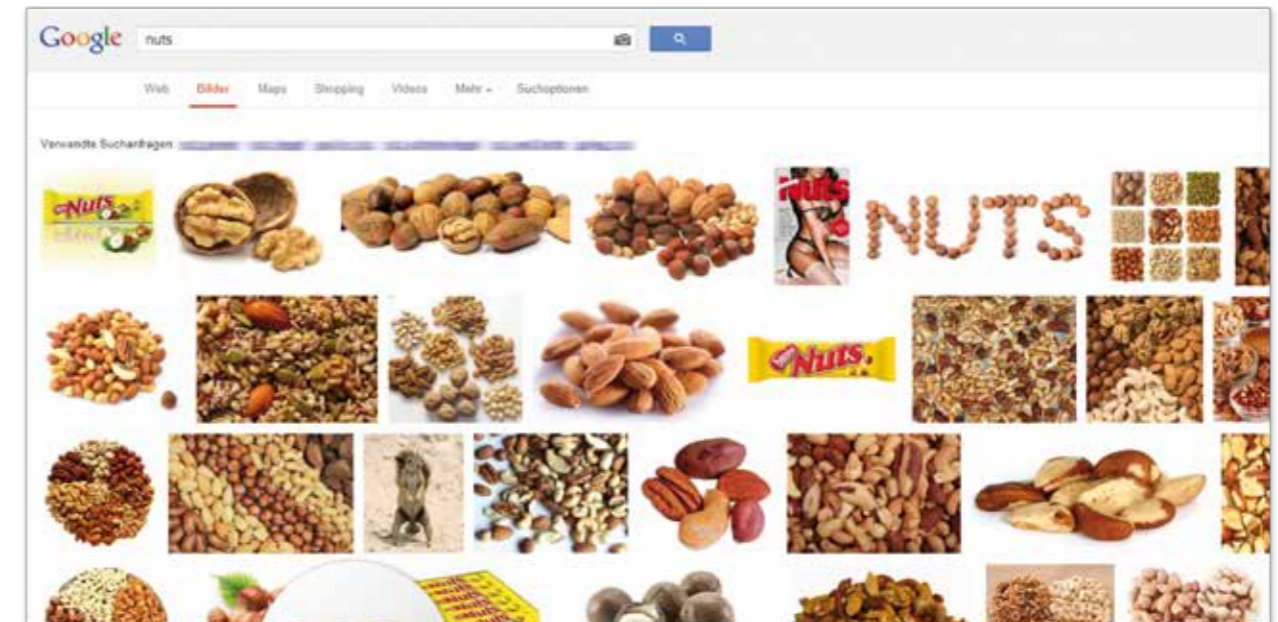
# Optimized for engineers: Fiarch.it - the intelligent technical search engine

THE SEARCH ENGINE FIARCH.IT DELIVERS SEARCH RESULTS FOR TECHNICAL AND SPECIALIST TERMS,  
CUSTOMIZED FOR THE REQUIREMENTS IN DESIGN

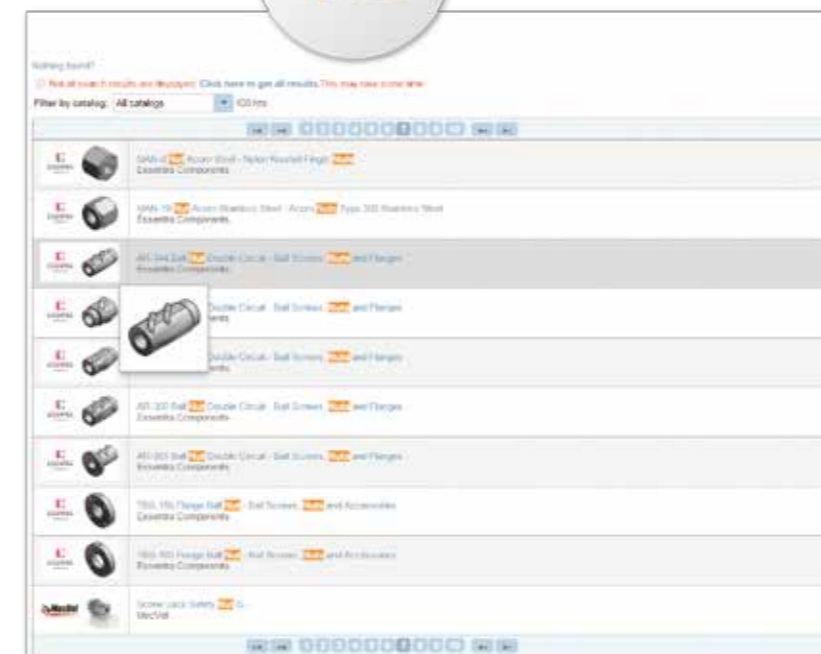
Anyone who has ever tried to find information about a technical topic with a normal search engine, knows the problem: Apart from a few suitable results the search result delivers a vast amount

of useless or only peripherally related search results. A good example is the "PARTcommunity vs. Search Engines Challenge", which took place in 2013, where the participants showed with

impressive examples, how deficient standard search engines are in the professional daily business.



VS



### A PRACTICAL SOLUTION BY CADENAS

For engineers and developers there is at last a practical solution for such search requests. CADENAS released this solution in March. Under the web address [www.fiarch.it](http://www.fiarch.it) a specialized search engine was generated, which

detects standard and supplier parts by means of intelligent search methods.

### FIARCH.IT: OBJECT SEARCH BY SKETCH, EXAMPLE AND WORD

The name expresses this „fiarch“, which is on the one hand a slur of “find instead of search” and on the other hand - as

the Urban dictionary tells us - also the slang term for “fetch”: Since the search engine is not only able to detect objects via full text search in more than 6,000 manufacturer catalogs and product websites, but also allows the finding of the desired object with the Geometric Similarity Search via a sketch or by comparing it to a 3D CAD model similar to the object.

Manufacturers interested in an optimized display of their products in the search results can get more information by emailing: [marketing@cadenas.de](mailto:marketing@cadenas.de).

You can find the search engine at:



## Greenhorns grab many numerous prizes!

### Presenting the Engineering Newcomer Awards 2014

NORELEM, CADENAS AND KONSTRUKTIONSPRAXIS AWARD PROJECTS OF PROSPECTIVE ENGINEERS

On 8 October the prizes of the "Engineering Newcomer 2014" were awarded in Stuttgart, Germany. The competition for prospective engineers was initiated by norelem, CADENAS and the trade journal konstruktionspraxis. The award gives students and young professionals the opportunity to draw attention to their study project, promote their career with the award and win attractive money prizes. Among the numerous submissions the expert jury, consisting of Marcus Schneck – CEO at norelem, Matthias Grywatsch – federal working group technical college and Jürgen Heimbach – CEO of CADENAS,

awarded the three most interesting and inventive designs with the most standard components.

#### SUCCESSFUL PROJECT WORK ABOUT TOPIC STANDARDIZATION AND APPLICATION OF STANDARD PARTS

Moreover, a special prize, consisting of an Amazon voucher worth 150 Euros, was awarded to Thomas Schaar and Stephan Raabe during the Engineering Newcomer Competition. Their study compares costs and efforts when creating and manufacturing a design with

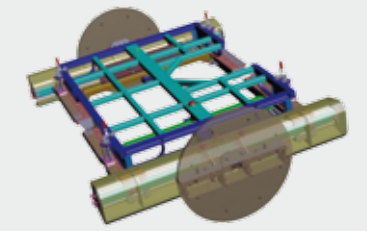
and without the use of standard parts.

#### ENGINEERING NEWCOMER CREATES AWARENESS FOR REUSE OF SUPPLIER PARTS

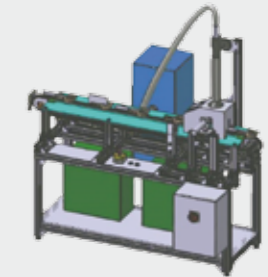
"Traditionally we support and promote young apprentices, technicians and engineers in their career. Setting and using standards creates room for new ideas and innovations. It's about giving young people freedom. With our support we would like to contribute a little part to this", says Marcus Schneck – CEO of norelem Normelemente KG.

## Creative design ideas are rewarded!

**1ST PLACE** The first place, endowed with 2,000 Euros, was achieved by Michael Schikorra from the technical college in Mühlhausen. He submitted his design of a standardized welding device for transport rack bottoms at the Engineering Newcomer competition.



**2ND PLACE** With their design for the semi-automatic welding of fixing brackets, Alexandra Ladwein and Marius Hanold from the University in Heilbronn convinced the jury and won 1,000 Euros.



**3RD PLACE** The team of Christian Stern and Andreas Bruhn from the Carl-Benz-Schule in Karlsruhe prevailed with their design of a trade fair scooter operated with a cordless screwdriver (Speedy-Drill Scooter). They cashed in on a prize of 500 Euros.



Besides the prizes, the winner projects are published in the trade journal konstruktionspraxis and the company norelem provides the prospective engineers free parts for manufacturing their projects.



» The early cooperation with the engineers of tomorrow is very important to us. They include technicians during their traineeship as well as their educational institutions. This way we create consciousness for managing parts diversity and reuse of supplier parts as well as standardization from scratch. «

JÜRGEN HEIMBACH  
CEO  
CADENAS GmbH

You can find many other contributions to the Engineering Newcomer Competition 2014 at:

[www.engineering-newcomer.com](http://www.engineering-newcomer.com)

Also in the future CADENAS is planning many more exciting Engineering Challenges with interesting prizes. All current design competitions can be found at [www.cadenas.de/challenges](http://www.cadenas.de/challenges).





## Presenting the first Austrian Standards Parts Award

CREATIVE USE OF STANDARD PARTS IS REWARDED



Caption:  
The happy winners of the Austrian Standard Parts Award 2014 from left to right: Anja Steinberger and Marko Schüller, Herbert Fürst, Raimund Horvath, David Weichselbaum and Christoph Reisinger as representative for August Maier.

### PREMIERE AT THE TRADE FAIR INTERTOOL IN VIENNA

The first Austrian Standards Parts Award was ceremonially handed over on the 7th of May 2014. Raimund Horvath from Starlinger & Co. GmbH, achieved the first place with his design of a safety enclosure and can enjoy prize money of 3,000 Euros.

With the Standards Parts Award the ELESA+GANTER AUSTRIA GmbH, the x-technik specialized publisher and the CADENAS Consulting GmbH awarded the most innovative designs that have the most efficient application of standard and supplier parts and a high degree of innovation. The awards were handed over to the first three places by the following jury members:



**CHRISTIAN SCHMID, ENG.**

Christian Schmid is responsible for technology and marketing at ELESA+GANTER Austria GmbH. Due to his long-term experience in application consulting and field sales, he knows the versatile application fields for standard parts very well. Practical relevance and maximum customer benefit are always top priority when consulting with ELESA+GANTER.



**ROBERT FRAUNBERGER, ENG.**

Robert Fraunberger is chief editor and sales manager at x-technik IT & Medien GmbH. After successfully graduating from the HTBLA Paul-Hahn-Straße in Linz he worked for a few years in the industry before taking on a new challenge in the USA by becoming the head of the marketing and communication department of an Austrian machine manufacturer. Since 2003 he has been co-owner and chief editor of the technical specialist publisher x-technik IT & Medien GmbH from Wilhering. As chief editor he is responsible for the trade journal FERTIGUNGSTECHNIK.



**KARL RIPPEL, ENG. MAG.**

Karl Rippel has been managing partner of CADENAS Consulting GmbH in Austria since 2011 and is an expert at standardization and reuse of parts. CADENAS Consulting GmbH implements parts management products in Austria by reusing electronic standard and supplier catalogs. He is fascinated by the ideals of the process-related connection between technical and business IT that CADENAS offers.

### AWARD PROMOTES AWARENESS FOR COST-SENSITIVE PRODUCT DEVELOPMENT

The target of the Austrian Standard Part Award is to strengthen awareness for cost-sensitive product development through increased use of standard and supplier parts in engineering. The competition addresses Austrian engineers, technicians and technical draftsmen and CAD users, who decisively influence

the subsequent product costs with their work and thus the competitiveness of their business.

"With the Austrian Standard Part award we would like to make it clear that a high degree of standard and supplier parts helps to reduce costs", says Jürgen Heimbach, CEO of CADENAS.

"The most interesting contributions of leading Austrian industrial companies and the great interest of the future engineers

from tgm and HTL were highly pleasing. This also shows the importance of standard elements and awards", says Christian Schmid, responsible for technology and marketing at ELESA+GANTER Austria GmbH.

## The winners

### PRIZE MONEY:

1ST PLACE: 3,000 EURO  
2ND PLACE: 2,000 EURO  
3RD PLACE: 1,000 EURO



#### SAFETY ENCLOSURE SHOWS CREATIVE USE OF STANDARDIZED COMPONENTS

Raimund Horvath of Starlinger & Co. GmbH achieved first place with his design of a safety enclosure "ad\*starKON SX+". This safety enclosure is an example of how an independent design can be realized with the creative use of standardized components.

The enclosure itself is a multi-functional part and does not only serve for user safety but was also designed in a visually appealing way. The design consists of 1,749 total parts of which 1,638 are standard parts. The proportion of standard parts in the design is thus about 94 %.

#### FLYING HIGH WITH THE LIFT STATION FOR BICYCLES

August Maier of Maier Werkzeugbau GmbH was the happy runner-up winner of the prize and endowed with 2,000 Euros. He handed in a design of an automated lift station to manipulate bicycles.

It helps to achieve an ergonomic working height for assemblers. The lift station is especially used for e-bikes. The design has a total of 41 components, 39 of which are standard parts.

#### ALWAYS IN THE RIGHT POSITION WITH THE DYNAMIC LAPTOP HOLDER

With their design of a laptop holder, the team of Anja Steinberger and Marko Schüller of tgm – Die Schule der Technik in Vienna achieved 3rd place at the Austrian Standard Part Award with a prize of 1,000 Euros. The laptop holder is dynamic: the height of the support for the laptop can be adjusted with a balance wheel. Furthermore the platform of the support can also be adjusted variably with hinges. At the backside a cable conduit is attached and the platform for the laptop is heat-dissipating due to numerous recesses to avoid over-heating.

In the future, CADENAS is planning many more exciting Engineering Challenges with interesting prizes. All current design competitions can be found at [www.cadenas.de/challenges](http://www.cadenas.de/challenges)

You can find further information about the Austrian Standard Parts Award here: [www.oesterreichischer-normteile-award.at](http://www.oesterreichischer-normteile-award.at)

Are you also interested in an efficient and future-oriented solution to standardize and reuse components?

CADENAS was awarded among one of the ten most promising "Engineering Design Solution Providers" for its Strategic Parts Management PARTsolutions by the CIO Review Magazine:

[www.cadenas.de/news/de/reader/items/big-data-fuer-industrieunternehmen-aufbereiten](http://www.cadenas.de/news/de/reader/items/big-data-fuer-industrieunternehmen-aufbereiten)



## 1st Place



RAIMUND HORVATH,  
STARLINGER & CO. GMBH  
Design of a safety enclosure  
"ad\*starKON SX+"

The design consists of 1,749 parts in total, 1,638 of which are standard parts

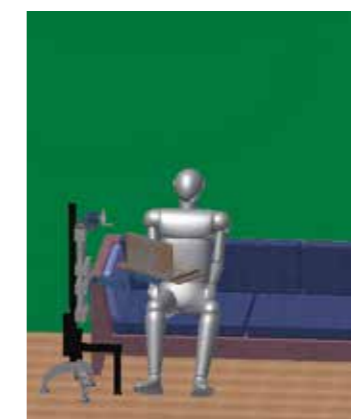
## 2nd Place



AUGUST MAIER,  
Maier Werkzeugbau GmbH  
Automated lift station to  
manipulate bicycles

The design has 41 components, 39 of which are standard parts.

## 3rd Place



TEAM OF ANJA STEINBERGER AND  
MARKO SCHÜLLER,  
tgm – Die Schule der Technik  
Design of a laptop holder

The laptop holder consists of 83 components, 81 of which are standard parts.



## What is Maverick Buying?

HOW INDUSTRIAL MANUFACTURERS ARE ROUNDING-UP AND REIGNING-IN THE MAVERICKS IN THEIR ORGANIZATION

Sorry Top Gun fans, it's got nothing to do with sending Tom Cruise to the grocery store. Maverick buying is one of those frustrating, head scratching occurrences that happen at companies both large and small. Most commonly this is an issue that afflicts large manufacturing businesses, and costs millions yearly in wasted time and lost revenue.

Maverick buying is essentially when an employee purchases goods without authorization. We're not talking about buying items that have no place being purchased for the business, like a neon palm tree for their office. We're also not talking about stealing or embezzling, what they're doing is legal it just isn't in the company's best interest. Maverick

buying is when an employee purchases goods, parts or materials for a project, going outside of the accepted buying channels of their organization.

There are several types of maverick buyers that exist within a manufacturing organization. Some are more dangerous than others.

## The several types



„THE WRANGLER“  
TYPE C MAVERICK BUYER

This happens when an engineer specifies a part of a product for a design, which is not supplied by an approved or preferred vendor. The purchasing department (begrudgingly) acquires the part for the project, because the maverick left them with no other option. The purchasing department doesn't have the buying or negotiating power they would have when sourcing parts through their usual, preferred suppliers, costing the business time and money.



„THE COWBOY“  
TYPE B MAVERICK BUYER

This is when an employee buys a product outside of their purchasing department, circumventing the internal buying channel for the company. Although they are using preferred parts and suppliers, they are not taking advantage of the purchasing department's skill, expertise and vendor relationships, and costing the company money.



„THE RUSTLER“  
TYPE A MAVERICK BUYER

This is when an employee goes completely rogue, procuring products both outside of the company purchasing department and using a non-preferred vendor to supply the product. This is the worst case scenario, an expensive deviation from standard practices.

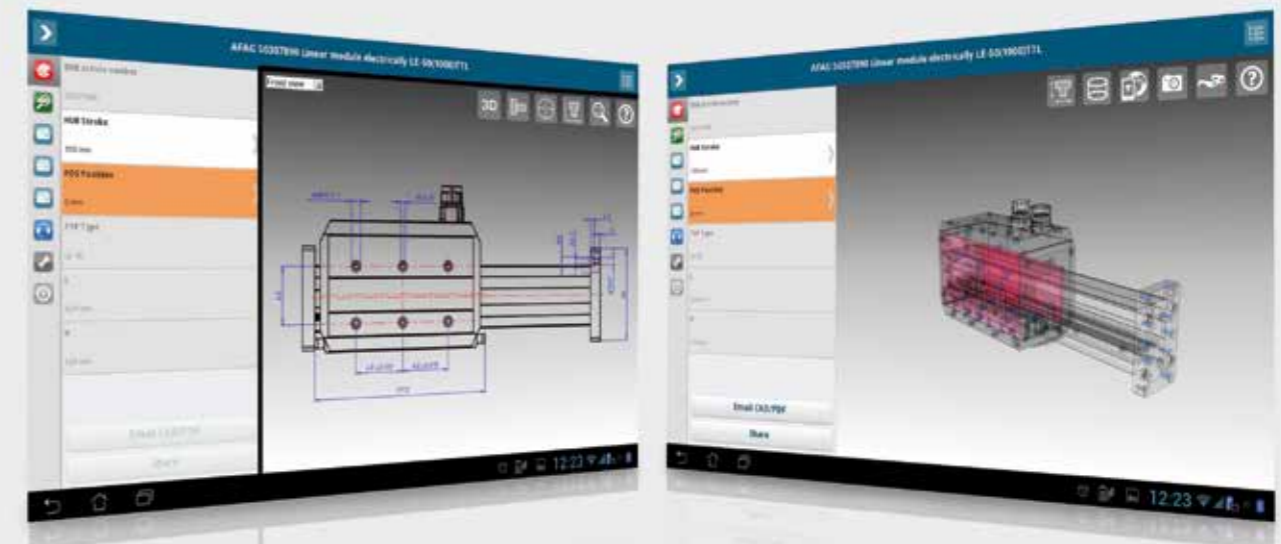
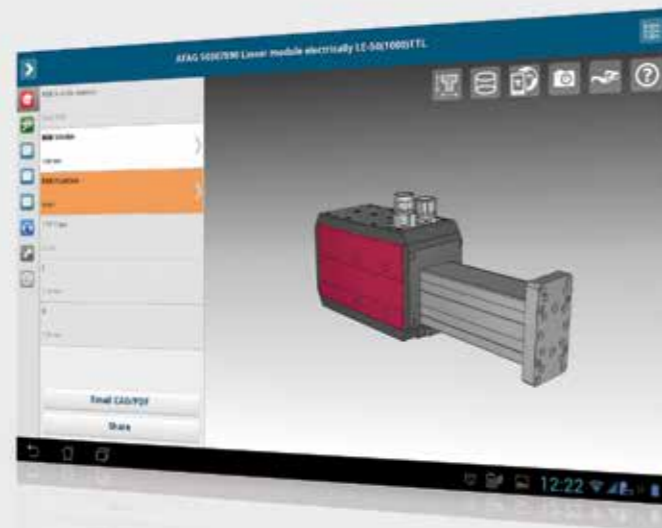
## THE MAVERICK BUYERS

### SO, WHAT'S THE SOLUTION?

With PARTsolutions Standard Part Management software, engineering and purchasing can work together. The software removes barriers and gives both visibility and access to the other's information. Purchasing can set preferred vendors for engineers to select parts for their designs so they can be properly

integrated, they can also set vendors who the designer is not to use. Engineering can see purchasing data about the parts they have to choose from, including price and availability. Neither purchasing nor engineering like it when maverick buying happens, by working together and utilizing the proper tools they can make it a thing of the past.

More information on Maverick Buyers and the PURCHINEERING concept can be found at: [www.cadenas.de/purchineering/en/maverick-buying](http://www.cadenas.de/purchineering/en/maverick-buying)



## New 3D CAD model app for Solid Edge helps speed product development

APP PROVIDES INNOVATIVE SEARCH CAPABILITIES AND MOBILE ACCESS

German software developer CADENAS introduces its new 3D CAD model app for Solid Edge® software to help speed product development. The new app for Solid Edge, based on CADENAS' eCATALOGsolutions technology, gives engineers and purchasing agents innovative search abilities and mobile access to over 400 product catalogs from po-

pular component manufacturers. This is another step in the ongoing optimization process to provide the Solid Edge community worldwide with efficient tools and enable access to 3D content whenever and wherever required. Solid Edge is developed by Siemens' product lifecycle management (PLM) business.

### CUSTOMER ORIENTATION AND SALES SUPPORT

The mobile app which is available for both Android and iOS, performs two main tasks. First it gives customers easy access to Solid Edge 3D CAD models, which can be sent directly to their workplace, and second, during a

sales pitch, the new technology enables salespersons to quickly determine the relevant Solid Edge model for a given project and create a realistic simulation. This is made possible through the use of Augmented Reality technology for 3D CAD models by CADENAS.

The most important advantage of the 3D CAD model app is how it improves product development speed. The 3D CAD model app for Solid Edge offers Similarity Search and Intelligent Finding, as well as access to sensible structured catalog data, which is provided through the 3D CAD download portal PART-community.

"Solid Edge users have had great success in using PARTSolutions to find the

commercial parts they need and to immediately use them in their assembly designs," said Karsten Newbury, Senior Vice President and General Manager, Mainstream Engineering, Siemens PLM Software. "The new support for iOS and Android mobile devices provides them with additional flexibility to quickly locate the parts regardless of their work location. In today's collaborative design environment, anytime, anywhere access provides a significant advantage."

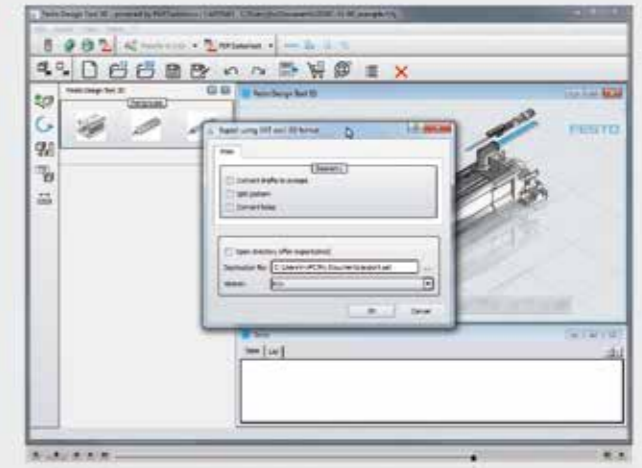
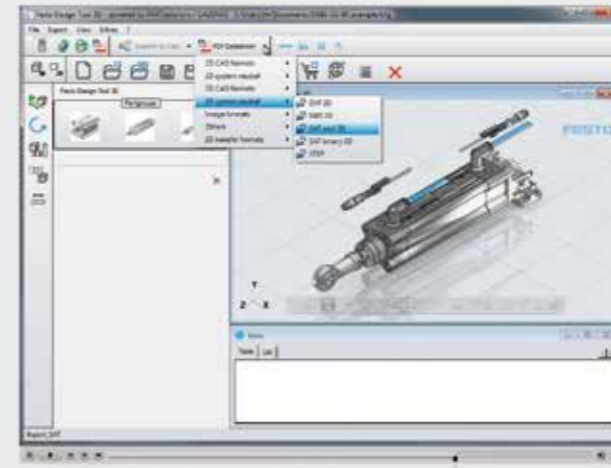
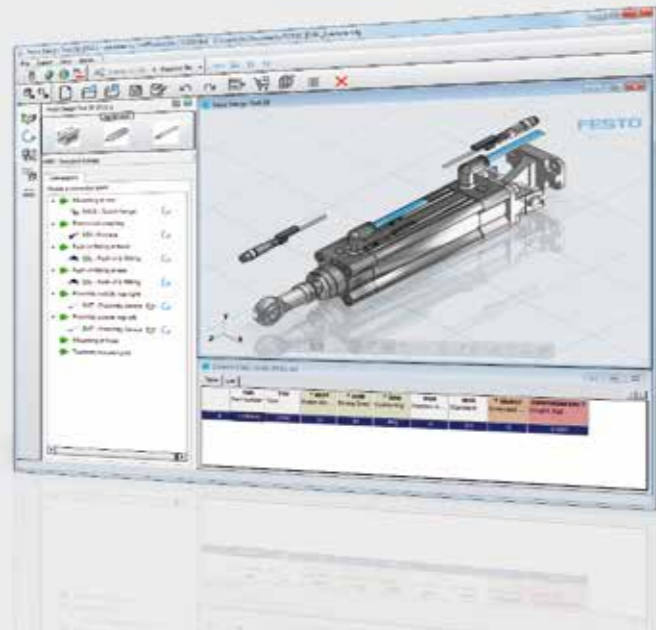
The app is available for download through iTunes as well as Google Play.

Note: Solid Edge is a trademark or registered trademark of Siemens Product Lifecycle Management Software Inc. or its subsidiaries in the United States and in other countries.



For more  
Information  
about the 3D  
CAD model  
app for Solid  
Edge® visit:

[www.cadenas.de/en/splm#app](http://www.cadenas.de/en/splm#app)



# Festo:

## Simply reliable configuration

FESTO DESIGN TOOL 3D FOR ERROR-FREE CONFIGURATION AND ORDERING OF PNEUMATIC SYSTEMS

Fast, reliable and efficient – the configuration software Festo Design Tool 3D reduces the risk of errors when designing and ordering system modules and offers greater convenience. The Festo Design Tool 3D was developed in cooperation with CADENAS the software manufacturer from Augsburg. Delivering system modules as a complete package with one order item simplifies logistics and assembly operations.

Until now, there was always a residual risk when dimensioning and ordering pneumatic drives. Many individual system components had to be placed manually by designers using CAD systems, and the result was long lists of

items to be ordered. The potential for errors was therefore large.

### MORE SECURITY

There is now an answer to this problem – the new Festo Design Tool 3D provides more security. Fast, reliable and efficient, this configuration software provides a convenient way of dimensioning standard cylinder modules with accessories in all the usual CAD formats.

The Festo Design Tool 3D for pneumatic systems genuinely reduces the amount of system design work and therefore saves a considerable amount of time. The risk of errors when compiling parts

lists and ordering individual components is significantly lowered.

### Festo Design Tool 3D



Get a first glance at the Festo Design Tool 3D in the following video at:

[www.festo.com/FDT-3D](http://www.festo.com/FDT-3D)



### FAST INSTALLATION, SIMPLE SELECTION

This tool can be installed locally on the user's own computer in just a few steps and is then fully operational. (Download in the Festo support portal: here) The Festo Design Tool 3D not only allows the required pneumatic drive to be selected easily but also automatically places the chosen accessories on the cylinder in accordance with the user's needs.

All that system designers need to decide is whether they would like to receive a complete cylinder module pre-assembled in accordance with the client's needs or would rather have a so-called "PrePack" as part of a complete package. Finally, the modern CAD configuration software generates one order item in the Online Shop basket. By following this specific procedure with the Festo Design Tool 3D, users can avoid inadvertent errors in the type

codes in parts lists and in the relationships between components in CAD drawings. This procedure also reduces the amount of work needed in all subsequent departments.

### SAVES TIME AND WORK

Whether they are engineers, buyers, storekeepers or installation technicians, the new CAD configuration software Festo Design Tool 3D offers all users more security and reduces their workload. The simple graphic overview of accessories, the automatic error-free placing of accessories, the elimination of the need for individual downloads and the efficient way in which an order can be placed with one order item – all this minimises the risk of configuration errors and saves time all along the entire value chain.

The subsequent delivery as a single package makes project engineering sim-

pler and also reduces packaging waste. Whether supplied pre-assembled or as a "PrePack", the installation of pneumatic drives with the Festo Design Tool 3D is secure and reliable.



The Festo Design Tool 3D is now available in 20 countries at: [www.festo.com/FDT-3D](http://www.festo.com/FDT-3D)





## More efficiency with online portal for spare parts

LISTA OFFICE SHOWS HOW SPARE PARTS CATALOGS CAN BE EFFECTIVELY MAINTAINED WITH CADENAS SOFTWARE SOLUTION

The Swiss company Lista Office is a market leader in the sector of office equipment. To get the constantly growing complexity of their spare parts catalogs under control, Lista Office relies on the technology of CADENAS, the German software manufacturer from Augsburg, when managing and selecting their self-designed and supplier parts.

### INTEGRATIVE USE OF EXISTING DATA

At the Industry Forum this year, Sergio Renda, head of brand management at Lista Office AG, explained how the company generates its price lists fast and efficiently and maintains its spare parts catalogs.

For this purpose, Lista Office uses a combination of an asimBase and CADENAS' 3D CAD download portal PARTcommunity. This allows the company to generate all price lists on the basis of the commercial master data from the existing ERP system themselves and link them to the 3D CAD design data via an interface.



The publication of CAD data, selection of parts to be ordered and initiating the ordering process take place on the PARTcommunity portal directly. The use of 3D visualization is of special importance, since it allows a targeted selection of the desired spare parts from the exploded view.

This way of spare parts management makes it possible to simply, efficiently and visually build up and maintain parts catalogs within the company itself, while using existing commercial information

and CAD data. By means of the integrative use of already existing data, a parts catalog can be generated that is always up-to-date and clearly arranged.

Go to complete presentation:  
[www.industry-forum.biz/  
rueckblick/2014/  
vortraege/lo](http://www.industry-forum.biz/rueckblick/2014/vortraege/lo)



## HALFEN and CADENAS develop IFC interface for intelligent data exchange in civil engineering

STANDARDIZED DATA FORMAT ICF ENSURES TROUBLE-FREE DATA TRANSFER FOR ARCHITECTURE SOFTWARE



exchange information completely and without flaws. The ICF interface developed by CADENAS in cooperation with HALFEN is a system neutral data interface, registered and standardized according to ISO 16739 (IFC2x3), to describe digital building models.

With the 3D CAD model download portal PARTcommunity, there is free access to HALFEN products from the mounting and anchoring system sectors at any time and worldwide.

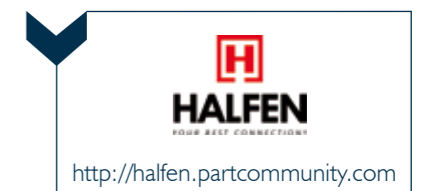
The times when architects developed their drafts with pencils and scale paper are long gone. Like in many other professions, increasingly more architects rely in their designs on computer generated 3D CAD models. To ensure trouble-free exchange of information between planner, builder, and property developer, it is preferable to use a standardized exchange format. HALFEN, one of the internationally most successful companies for concrete anchoring, pre-cast, mounting systems, developed a new interface for the ICF format

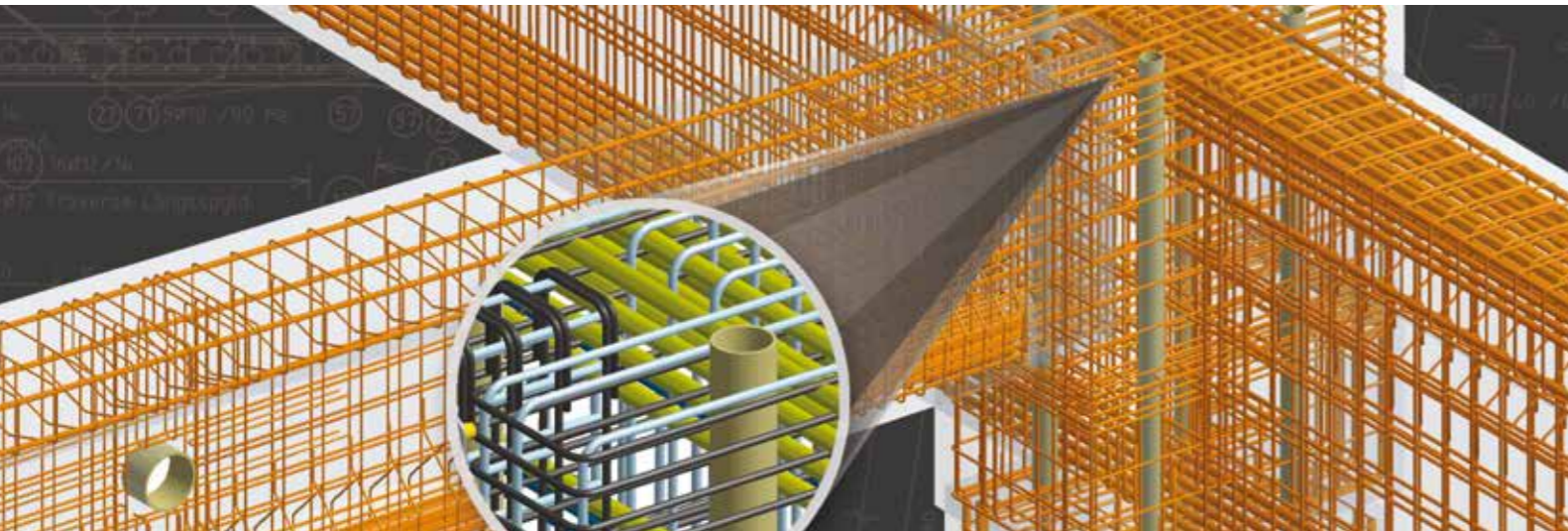
together with the software specialist CADENAS from Augsburg.

### SIMPLY WORK TOGETHER WITH CUSTOMERS ON PROJECTS WORLDWIDE

IFC (Industry Foundation Classes) is a BIM (Building Information Modeling) exchange format developed by building SMART. The aim is to enable architects, engineers and property developers to effectively use CAD and CAFM systems and other software tools effectively to

The PARTcommunity download portal of HALFEN is available at:





## DICAD relies on PARTcommunity

STRAKON 2014 FROM DICAD GETS 3D CAD MODELS DIRECTLY FROM CADENAS' DOWNLOAD PORTAL PARTCOMMUNITY.

DICAD is a software company from Cologne, specialized in manufacturing design, formwork and reinforcement planning for engineering and prefabricated construction. They created the 2D/3D/BIM CAD system STRAKON. The newest version supports direct import of 3D CAD models via the download platform PARTcommunity from CADENAS.

INTEGRATE 3D CAD COMPONENTS VIA THE PARTCOMMUNITY DIRECTLY INTO THE PLANNING PROCESS WITH STRAKON 2014

There is a vast amount of improvements in STRAKON 2014, accelerating workflows and rationalizing the planning. Especially 3D CAD mounting parts are now available very quickly: On the one hand generic flexible components,



modifiable in their dimensions can be converted into 3D CAD mounting parts, on the other hand finished 3D CAD mounting parts can also be downloaded directly by manufacturers via CADENAS' download portal PARTcommunity.

The DICAD download portal PARTcommunity is available at:



## The AMF media library as sales tool

THE RIGHT MEDIA AT THE RIGHT TIME WITH SOLUTIONS BY CADENAS

### INNOVATIVE SOLUTIONS FOR CUSTOMER SERVICE

The Andreas Maier GmbH & Co. KG in Fellbach, abbreviated AMF, is one of the most innovative companies in the field of camping systems and quick-change systems that function as interface between the machine table and the work station fixture. Every year the company launches a multitude of new products on the market aimed at reducing set-up times and finding an individually suitable solution for the customer. In addition, AMF offers a service which includes not only providing these products but also a complete analysis of the manufacturing situation at the customer and afterwards creating an end-to-end solution. This service solution, unique for this industry, is supported by numerous technical systems for customers and AMF sales representatives - especially by the electronic product catalog app and since 2013 the AMF media library APP by CADENAS.

### THE MEDIA LIBRARY AS A COMPREHENSIVE TOOL FOR EXTERIOR USE

By means of the AMF media library, this access is extended to text documents, videos, pictures and PDFs within the mobile application. This way AMF can store the suitable documentation, instructions and application examples to the respective components. By combining a cloud supported synchronization with local storage on the device, the employees always have access to the newest data even if the access to the network should not be available. The data is stored on the PARTcommunity servers which also manages the electronic product catalogs.



ructions and application examples to the respective components. By combining a cloud supported synchronization with local storage on the device, the employees always have access to the newest data even if the access to the network should not be available. The data is stored on the PARTcommunity servers which also manages the electronic product catalogs.

### THE SELECTION OF THE TOOLS IS DECISIVE

Volker Göbel says: The AMF media library ensures that each sales employee has access to the same contents and data which are always up-to-date. Languages are also stored, thus employees e.g. in India and Germany can work with the same tool. For these defined documents, pictures and videos etc. are available to everyone. Eventually the complete package needed by the sales department is included."

On behalf of hardware it is necessary to create clear rules for using mobile devices with a device management system. This includes a uniform selection of the operating system in use, whether employees are allowed to bring their own device (BYOD Bring Your Own Device) and how the systems are protected from unauthorized access. Additionally AMF is constantly training their staff, so they are able to use the tools in the best way. Thus the sales employees are not only learning how to efficiently use the numerous functions of the CADENAS apps but also which options are suitable for the needs of the customers.

 The complete presentation about the AMF media library is available for download from: [www.industry-forum.biz/review/2014/presentations/amf](http://www.industry-forum.biz/review/2014/presentations/amf)

# Work more efficiently with product selectors

DEFINED PRODUCT FEATURES ALLOW CUSTOMERS AN EASIER SEARCH FOR PARTS WITH PARTCOMMUNITY



A big product selection offers customers many options to realize their ideas and desires. The search for the suitable part, however, can quickly become a needle-in-the-haystack situation. At the Industry Forum 2014 Dipl.-Ing. Anatol Kligermann explained how the company Balluff solved this challenge in cooperation with CADENAS by means of product selectors in its electronic product catalog.

## AN OVERWHELMING AMOUNT OF OPTIONS

Balluff, a leading, globally acting specialist for sensors and provider of connectivity, has more than 2,600 employees and offers a complete product range of high-quality sensors, distance measurements and RFID systems as well as networking solutions for all areas of factory automation.

The number of CAD models in Balluff's product catalog have exceeded the 10,000 mark for the first time. At the same time Balluff felt they would like to

offer customers a fast and uncomplicated solution to find the right part within this overwhelming amount of options.

## FAST AND PRECISE SEARCH WITH PRODUCT SELECTORS

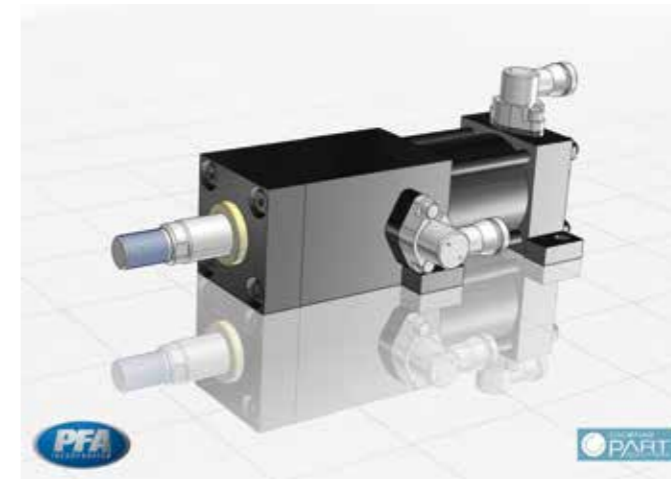
Kligermann says: "For our extensive catalog, a fast and precise search is of highest priority. If customers already know the order number or article designation of a part, they can easily find their target in the catalog with a few clicks."

The case is a different one if a customer has an accurate idea of what the product looks like, but doesn't know the order number and article designation. Normally they would have to browse through various property categories to find, for instance, a sensor that could be listed among the category "pressure-resistant" and "3-4 wire".

With the new product selectors the catalog is ordered according to selection criteria. By selecting specific variables,

parts can be excluded little by little from the search and the data volume to be processed is reduced to a convenient size. The product selector is very compact, clearly arranged and intuitive to use. At the same time the catalog stays flexible and easy to maintain, so subsequent amendments to the selection criteria and extensions are easily possible.

For the complete presentation about the Balluff product selectors, please visit [www.industry-forum.biz/review/2014/presentations/balluff](http://www.industry-forum.biz/review/2014/presentations/balluff).



# PFA announces their new digital 3D products

BY EXPANDING THEIR ONLINE CATALOG OFFERINGS PFA IS PROVIDING AN EXCELLENT CUSTOMER EXPERIENCE TO A LARGER AUDIENCE

Industrial Automation Manufacturer, PFA Incorporated, has expanded their online parts catalog built by CADENAS PARTSolutions. Now, engineers can quickly configure and download products from the PFA self-locking cylinder line for use within their application, saving time and increasing design accuracy.

## CUSTOMERS DEMAND SELF LOCKING PRODUCTS IN 3D CAD FORMAT

PFA Inc., a Wisconsin based manufacturer of industrial automation, injection molding and associated products, is best known for the KOR-LOK® Side-Action Systems product line, already available within the online parts catalog. KOR-LOK Side-Action products are highly configurable components used for complex injection molding applications, and one of the most popular digital 3D products from PFA. Expanding on the success of KOR-LOK, PFA is now providing 3D models of the Self-Locking series of

cylinders. PFA has expanded their online parts catalog to include self-locking digital 3D products, thanks to customer feedback and demand.

"We get the opportunity to hear from our customers all the time, and the feedback is overwhelmingly positive," says Mark Scanlan, Vice President and GM of PFA Inc. "We've been told how useful the configurator is and how it really helps our customers to do their jobs better. By providing our products as customizable 3D models, the customer gets exactly what they need to represent the part they are going to buy. We're often asked for more of our products in digital 3D, and the self-locking series was highly requested, which is why it's available now."

## AN INVESTMENT WHICH PAYS OFF

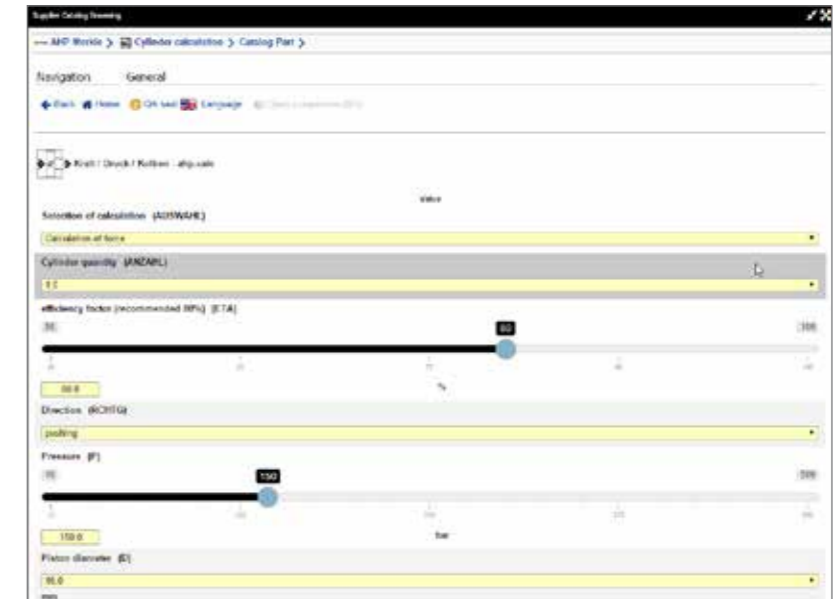
"What PFA is doing is exactly what we love to hear," Says Tim Thomas, CEO of CADENAS PARTSolutions. "The goal for every industrial manufacturer

is to create a remarkable customer experience. PFA has customers asking for more products in 3D so they are answering the call, and that investment will pay dividends with happier customers and more sales."

More information at: [www.cadenas.de/electronic-productcatalog/product-configurator](http://www.cadenas.de/electronic-productcatalog/product-configurator)







# AHP goes mobile

with calculation assistant and specialized app

AHP SALES OFFER SIMPLE CYLINDER CONFIGURATION FOR CUSTOMERS AND MOBILE ACCESS TO PRICE CALCULATION AND ADDITIONAL FUNCTIONS

In cooperation with CADENAS, AHP Merkle relies on mobile technology and has developed an app for calculation assistants and a specialized app for in-house process optimization. Patrick Mußler, international sales manager at AHP Merkle, introduced both innovations at the CADENAS Industry Forum 2014.

The manufacturer of hydraulic cylinders has had a 3D CAD product catalog, based on CADENAS' software solution eCATALOGsolutions, since 2000. Since 2013 this catalog has been available to both customers and AHP sales as mobile app in 15 languages.

The family run business AHP Merkle has been developing, designing and manufacturing standard and custom made hydraulic cylinders of high-quality since 1973. The company's head office is in Gottenheim near Freiburg and has a great number of agencies abroad - in

Asia, North America and Europe.

AVAILABLE ON ALL CHANNELS:  
CALCULATION ASSISTANT  
NOW ALSO AVAILABLE  
AS AN APP

When choosing the right component or the different versions of a component, assistants can support engineers and make their daily work much easier. AHP Merkle has set itself the objective to make the calculation of hydraulic cylinders easier for its customers and provide a calculation assistant for this purpose. This way it is possible to calculate for instance buckling resistance, piston speed and force or pressure on the piston.

The calculation assistant, as an interactive and intuitive tool, is made attainable to customers on as many media channels as possible: On the 3D CAD download portal PARTcommunity, on a



data CD, in the general AHP app and as an individual app. "The new calculation app offers a very fast, simple and convenient possibility for our customers to integrate hydraulic cylinders into their designs and to get the desired data", says Patrick Mußler.

## IN-HOUSE APP FOR PRICE CALCULATION AND FOR ADDITIONAL CONFIGURATIONS

The second innovation AHP Merkle introduced at the Industry Forum 2014 was a specialized app as an in-house AHP solution. It offers sales and sales partners of AHP the possibility to access special internal functions such as price calculation and additional component configuration (advanced functions) on their mobile.

Since certain features are not accessible to every customer, it is the aim of the in-house app that AHP sales staff can directly configure special customer requests on their mobile, on-site and calculate the respective price in a fast and easy way. "Due to our specialized app, our sales staff and partners now have constant mobile access to all functions, while these functions are not visible to everyone", Patrick Mußler explains.

The AHP calculation assistant is not only available as mobile app but also in the 3D CAD download portal at <http://ahp.partcommunity.com>.

The specialized app has the following in-house functions:

- Advanced calculation functions and value ranges to configure cylinders
- Price calculation: list price, surplus price, final price, currency conversion for sales staff worldwide

Both the calculation assistant app and the specialized app are designed in AHP Merkle's corporate design. "CADENAS did such a great job customizing it to our design that you can hardly tell the difference between AHP's in-house solution and the CADENAS solution", Mußler told us in his presentation at the Industry Forum.

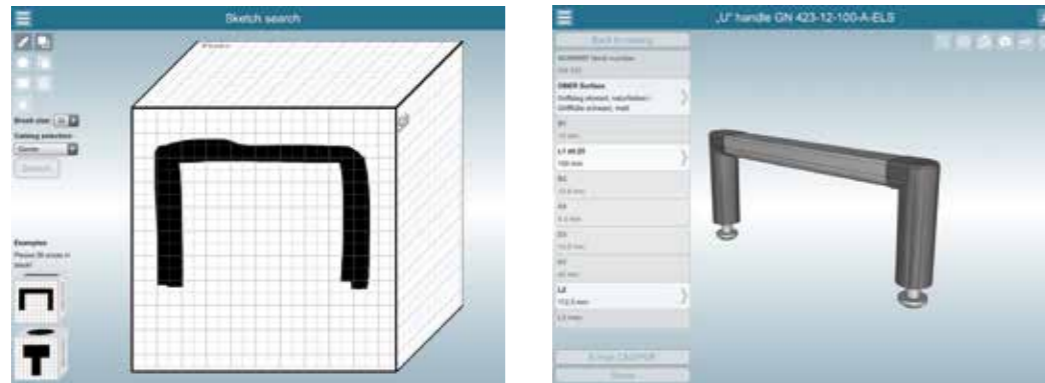
Here you can read the complete presentation: [www.industry-forum.biz/review/2014/presentations/ahp](http://www.industry-forum.biz/review/2014/presentations/ahp).





**For more information** about the AHP app visit:

<http://en.ahp.de/products/ahpapp/>



## A world first: Sketch search in the latest version of 3D CAD models app

THE NEW PARTCOMMUNITY APP VERSION OF CADENAS NOW ALLOWS FASTER PRODUCT SEARCH THROUGH SKETCH DRAWING

The PARTcommunity 3D CAD models app by CADENAS is now available in the latest version 3.0.4. Besides many other optimizations in function and design, the popular, over 450,000 downloaded app now possesses the trendsetting sketch search.

### A PICTURE SAYS MORE THAN A THOUSAND WORDS

Smartphone and tablet users with their relatively small screens and without real keyboard and mouse need a control interface that's as simple as possible. Especially in searches, typos can be extremely frustrating - even more so if there are special characters or case sensitivity. The latest version of the PARTcommunity 3D CAD models app has therefore been enhanced with a vital new element: Through the "Sketch Search" function, users of the popular app can now find parts not only through full text search or catalog browsing, but also through a simple sketch of the needed object. The

interface is as simple as it is intuitive: Just trace the rough form of the object on the three sides of a cube and hit 'search'. If you want more detail, you can use various editing tools to refine the sketch and to narrow down the search results.

### INTELLIGENT INTERFACE MEETS CLEVER COMMUNICATIONS

Also, the app's look&feel has been further improved. With the transition to flat design, the application now shows a much tidier look and provides an even more comfortable user experience - particularly on small smartphone screens.

Since november the 3D CAD models app has shined with a fresh new design and new features. Previously components could only be searched for in individual catalogs. The required component can now be searched for in all catalogs with the news sketch search element.

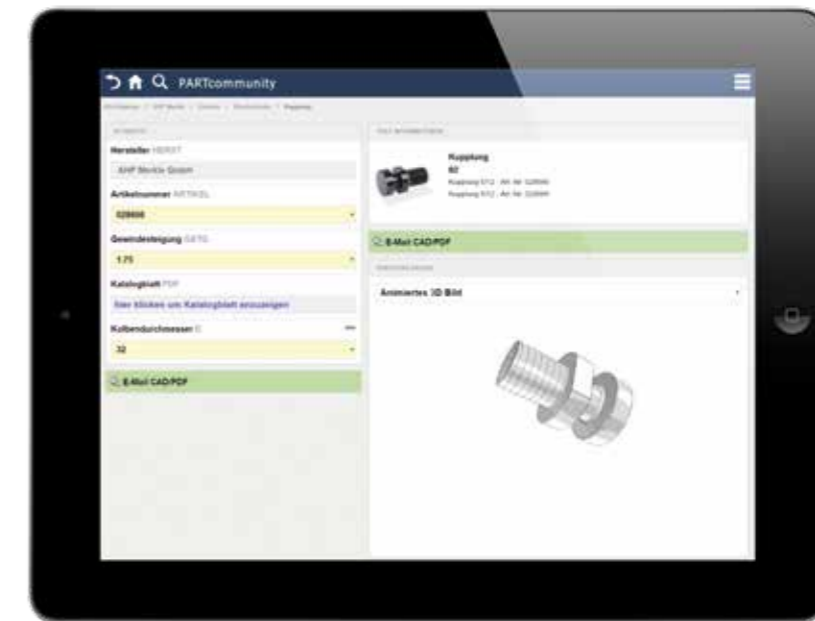
### CADENAS APP WINS AUTOMATION APP AWARD 2014

The PARTcommunity 3D CAD models app from CADENAS won first place and wiped the floor with all the other contenders in the "catalog" category of the automation app award 2014. The magazine "elektrotechnik" awarded for the third time the best business app for automation in four separate categories.

More information about 3D CAD models app by cadenas can be found here:



[www.cadenas.de/en/app-store](http://www.cadenas.de/en/app-store)



## The app solution for the smaller budget

WITH CADENAS' PLATFORM INDEPENDENT WEB APP YOU CAN OBTAIN YOUR OWN MOBILE ELECTRONIC PRODUCT CATALOG AT A REASONABLE PRICE

The PARTcommunity mobile web app allows component manufacturers, customers and sales to provide mobile access to their own Electronic Product Catalogs at a reasonable price and platform independently. For the web app technology it makes no difference whether the mobile device is operated with the market leaders Android and iOS or with other operating systems like Windows Mobile, Blackberry OS, etc..

Component manufacturers can adapt the web app to their corporate design and in addition to that they can, in terms of content, define exactly which specific (product) information should be provided.

### LEARNING BY DOING

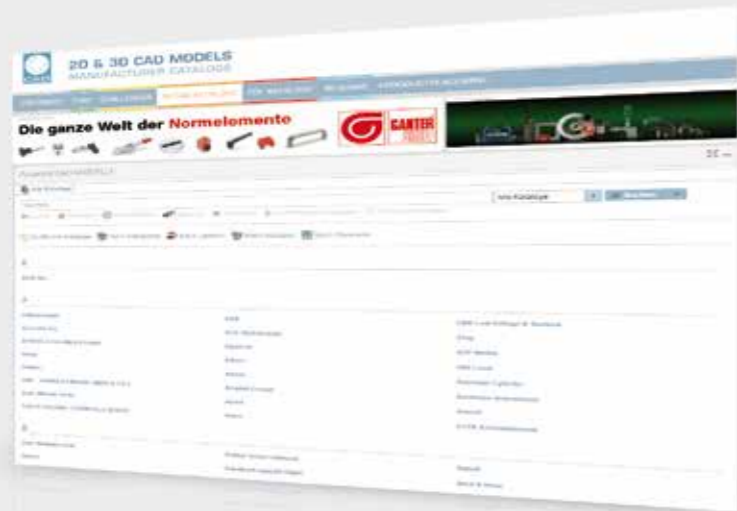
Those who are interested can try out a simulation of the web app for smartphones and tablets and convince themselves of the easy handling, at [b2b.m.partcommunity.com](http://b2b.m.partcommunity.com). To find the desired CAD models, you can either traditionally browse through the offer or use the intelligent full-text search. Additionally to the product data, a simple 3D animation with low system requirements is displayed.

The CAD data of a selected part can then be downloaded conveniently via email in all current CAD formats to the workstation.

The prerequisite for creating an individual PARTcommunity mobile app is a PARTcommunity portal with a Electronic Product Catalog based on CADENAS' eCATALOGsolutions technology.

**PART**  
COMMUNITY

For more Information about PARTcommunity mobile, please turn to [Marketing@cadenas.de](mailto:Marketing@cadenas.de)



## It's also true at PARTcommunity: All good things come in 3(.0)

CADENAS' 3D CAD MODEL DOWNLOAD PORTAL PARTCOMMUNITY OFFERS NUMEROUS IMPROVEMENTS AND CONVENIENCE FUNCTIONS IN ITS NEWEST VERSION 3.0

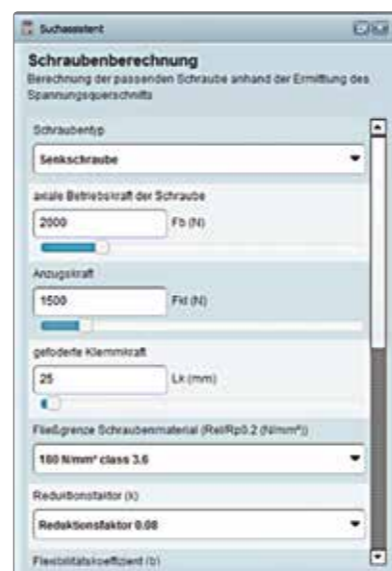
Since January the 3.0 version of CADENAS PARTcommunity 3D CAD download portal is online. The new version impresses with numerous new convenience functions that help to find parts even easier and faster.

### MORE ADJUSTMENT POSSIBILITIES FOR PORTAL PROVIDERS

For eCATALOGsolutions customers with a PARTcommunity download portal, the new version offers many improvements. Without any programming effort it is now possible to create filter and calculation assistants in your own design, which are

then also available in a perhaps existing app. The assistants impress with a process-oriented workflow where search results and a suitable parts selection are also directly displayed.

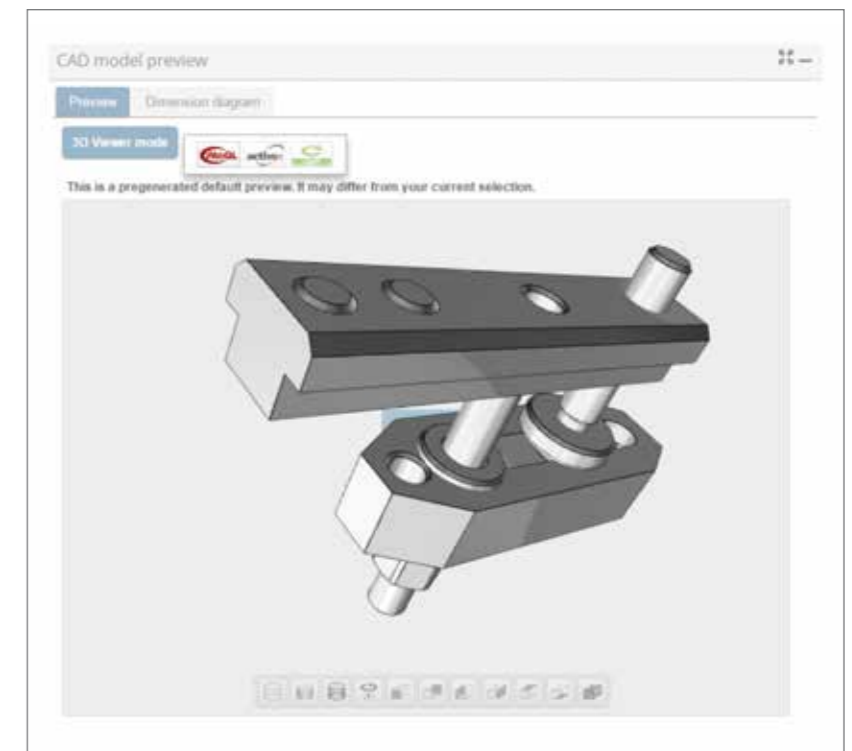
Moreover specific catalogs for certain end customer groups can be created. For instance, a catalog can be created containing only automotive parts for a automobile manufacturer which are also equipped with the corresponding identification numbers of the automobile manufacturer.



### WebGL 3D Visualization

One of the most striking innovations is the WebGL 3D visualization, based completely on HTML 5: is that the 3D CAD model download portal PARTcommunity can display 3D objects directly in the browser without needing additional extensions like ActiveX, Java™ or Adobe Flash®.

This innovation is especially beneficial when using Firefox and Chrome, since these browsers block most plugins by default for reasons of security, according to the trade magazine Heise. At the same time the portal of course stays compatible downwards and allows the use of the previous Active X Viewers. This way users with older browser versions are still able to access the electronic manufacturer catalogs.



### THE FOCUS IS ON THE SEARCH FUNCTION

Not only with regard to the design, there is a greater focus on the search at PARTcommunity: By drag&drop the 3D CAD model files can now be entered via the geometrical 3D search function for comparison. Thus it is no longer necessary to tediously navigate through the data directories and the user can find parts even faster which are similar to the entered part.

The full-text search is now equipped with an auto completion feature, giving a fast overview of the possible search terms before the search has even been conducted.

Also with the search results, small design adjustments ensure a better overview. The entered search terms are highlighted yellow in the results and when

scrolling down, the table description is visible at any time.

### CONSISTENT ADVANCEMENT

The new update is only another step in a long row of consistent advancements, where CADENAS has been adjusting the 3D CAD model platform to the demands of the users and is continuously setting new trends. This way the free download portal – released in 1998 under the name PARTserver – has been extended with innovative functions for 15 years. The vision CADENAS pursued when founding the download portal however has always stayed the same: Bring engineers easier and faster to the desired component.



CADENAS' 3D CAD download portal PARTcommunity is available at:





## Slim and stylish – get a seamlessly integrated catalog with PARTcommunity embedded technology

PROVIDE 3D CAD MODELS FOR BARRIER-FREE DOWNLOADS FROM YOUR OWN WEBSITE WITH PARTCOMMUNITY EMBEDDED

There's a saying by Mark Twain "Clothes make the man: Naked people have little or no influence on society." This perfectly true aphorism can also be applied to the business world: The web presence makes the company. Therefore it is all the more important to create a web presence that makes a good impression, catches the attention of the visitor and shows the visitor what they need to find. This is why a great number of manufacturers have already opted for the new PARTcommunity embedded technology. With this advancement in the field of electronic product catalogs the complete 3D CAD download portal, based on CADENAS eCATALOGsolutions technology, is integrated into the

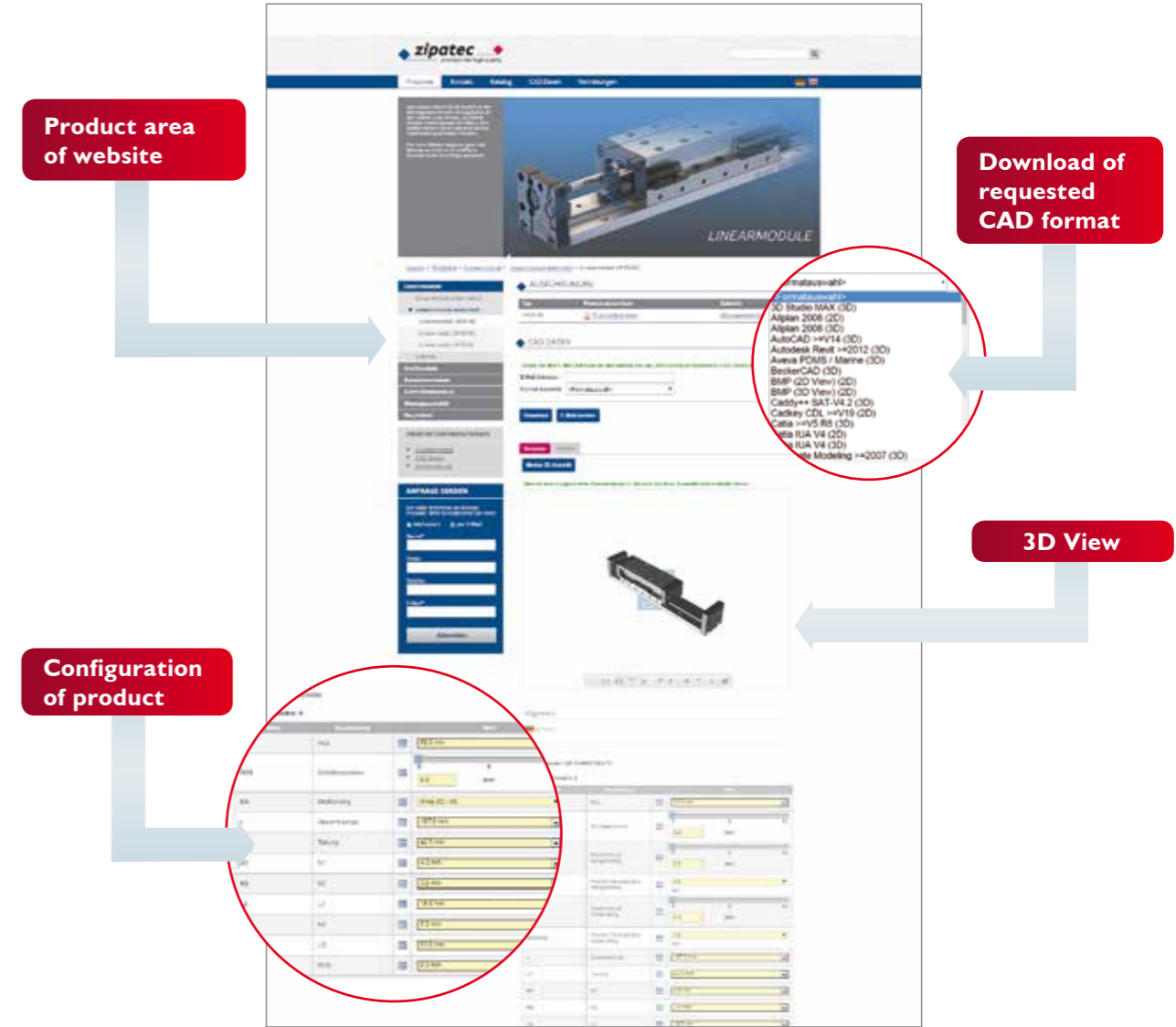
website in the course of improving the web presence. Thus customers have direct access to all 3D CAD data of the product catalog.

### A WEB PRESENCE AS IF CAST FROM ONE MOULD DUE TO EMBEDDED TECHNOLOGY

The catalog is available worldwide to customers, engineers and prospective customers at any time. Without additional effort users can exactly define the necessary parts, configure products, generate interactive 3D views and eventually download the desired 3D CAD model directly and for free into the CAD developer's environment.

When redesigning the website of zipatec Montagetechnik GmbH, the specialist for automation solutions in Southern Germany, the download area was completely revised this way and adjusted to customer requirements. Due to the seamless technology the complete product catalog now appears in the manufacturer's corporate design under the category "CAD data" – without complex programming. Thus the new web presence has a more precise user interface, matched to the target group and appears as if cast from one mould.

As experience shows the integrated solution of CADENAS 3D CAD download portal PARTcommunity increased the



amount of possible downloads from the manufacturer's product catalog by an average of 33%: The customer does not need to go to an external page to call up the CAD data but will find all information about the product clearly arranged on the manufacturer's website. On the basis of this technology it is also easily possible to create a shortcut to a web shop and seamlessly change from viewing to ordering the 3D CAD model.

### PROFESSIONAL REDESIGN OF THE WEBSITE BY CANVAS

Redesigning the website is carried out by the media agency CANVAS, a 100%

subsidiary of CADENAS. Setting up the complete system on the basis of the content management system "contao" was recommended, which allows for the creation and maintenance of contents in a significantly improved manner. However, the integration of the PARTcommunity technology is of course possible without changing the existing system.

### YOUR PRODUCT CATALOG AS INTEGRATED CADENAS SOLUTION

The simplified access due to the PARTcommunity embedded solution and thus the improved download figures

are available to every component manufacturer who runs a catalog with the eCATALOGsolutions technology.

You can visit the zipatec website at: <http://www.zipatec.de>. For more information about the embedded technology, please write to [embedded@cadenas.de](mailto:embedded@cadenas.de).

## THE BIG SURVEY

IS YOUR  
CUSTOMER  
KING?eCATALOG  
SOLUTIONS

## Intelligent CAD models for the construction phase

EXCLUSIVE SURVEY RESULTS REVEAL HOW YOU CAN PROVIDE YOUR CUSTOMERS THE BEST SERVICE WITH YOUR 3D CAD MODELS

### EXCLUSIVE SURVEY WITH 122,200 CAD USERS

CADENAS has questioned engineers and purchasing agents to identify their needs: In a survey, 122,200 users were

asked which information they require with their 3D CAD models. The polled participants are users receiving their CAD data through download portals, as well as employees of process oriented companies with PLM and ERP infrastructure.

For the evaluation of the survey, 1,430 feedback forms from those engineers and purchasing agents were analyzed.

## A selection of exclusive survey results:

### WHICH OF YOUR CAD INFORMATION MAKES YOUR CUSTOMER KING?

#### Weights & centers of mass:

93% of the participants emphasize the need for information on weights and centers of mass in their catalog part data. Today, weight reduction plays an important role in many technological sectors. The total weight can only be optimized in the construction phase if the weight of every single component is known respectively this information is deposited within the CAD model.



**Kinematics:** 89% of the participants want their catalog part data to have information on kinematics. Details on movement sequences of individual components like direction and freedom of movement are needed by engineers to create error free products.



**End of Life:** 80% of the participants want information on the end of life of catalog part data. It's important for engineers to be well prepared for part discontinuation and not to awake to a nasty surprise. This makes protracted searches for alternatives and their possible incompatibility obsolete, as well as the resulting comprehensive construction changes later down the road.



### IN ADDITION, THE FOLLOWING INFORMATION WAS DEEMED VITAL BY THE POLLED PARTICIPANTS:

- Labeling of standard parts
- Material & substance
- Pictograms & translations
- Additional documentation & case studies



All results of this survey can be found in the CADENAS brochure „Smart Parts“:



[www.cadenas.de/get/smart-parts](http://www.cadenas.de/get/smart-parts)

Do you need support with the selection and provision of your customer specific product information of your Electronic Product Catalog? CADENAS wants to help and show you with its "Pimp my Catalog" workshop, how to enhance

your product catalog with intelligent information.

Let your catalog become even more valuable for engineers and purchasing agents while maximizing your sales potential.

### Do you have questions on the topic of intelligent CAD models?

Contact us by telephone at +49 (0) 821 2 58 58 0-0 or write an e-mail with the subject "Smart Parts" at [Marketing@cadenas.de](mailto:Marketing@cadenas.de).

# THE FACTS MA'AM - JUST THE FACTS

## Industrial Marketing: How to reach Industrial Engineers, Design Engineers and Process Engineers

PROMOTING YOUR PRODUCTS TO ENGINEERS ISN'T EASY, BUT THIS CHALLENGE IS WORTH THE EFFORT

CADENAS asked our favorite marketing guru, Achinta Mitra, to answer one of the toughest industrial marketing questions: How do you reach engineers? They want what they need, and nothing

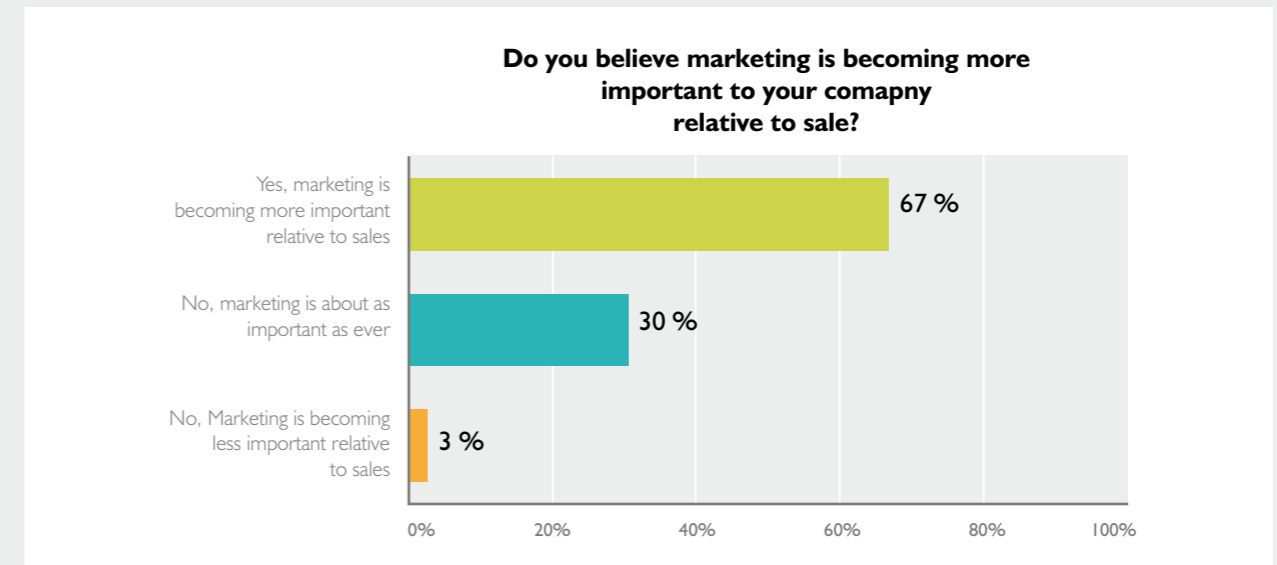
more, so how do you dazzle them with your marketing prowess?

The short answer? Think of yourself as Joe Friday "Just the facts ma'am. Just the

facts". Cut the fluff and give them what they need, they'll thank you for it.

## Industrial Marketing for Engaging with Engineers

By Achinta Mitra



It's a myth that engineers hate marketing. What they definitely don't want is more meaningless marketing fluff. Those two statements are based on my personal experience of working with and marketing to engineers for the past 25+ years. I'm a Mechanical Engineer myself and passionate about marketing. Over the years I've met and worked with many engineers who feel the same way and some are very good at creating their own marketing content.

As a manufacturer or an industrial company, your marketing must target and communicate with engineers and technical buyers. So what do you have to do to make that happen?

If I had to summarize the answer in one sentence, it would be, "Industrial marketing must be from one engineer to another." That is by far the most effective strategy for marketing to engineers.

One of the recommendations for industrial marketers that came from the 2012 survey, Mind of the Engineer released by

UBM Electronics was, "Engineers communicate with and trust other engineers. Leverage this collaborative ethos."

### I HAVE FOUND FOUR KINDS OF MARKETING CONTENT THAT RESONATE WITH ENGINEERS. THEY ARE:

- **Proof of concept** – Case studies, customer videos, certifications and test results from prototypes and pilot projects
- **Time savers** – CAD files, online parts catalogs, real-time design tools, configurators and Product Comparison Matrices (PCMs)
- **Educational** – Application notes, white papers, blogs, forums, webinars, technical articles, online learning/training centers and how-to videos
- **Mobile Apps** – Any engineering app that helps find and specify the right industrial part/component

The complete article can be found at [industrialmarketingtoday.com/industrial-marketing-communicating-engineers](http://industrialmarketingtoday.com/industrial-marketing-communicating-engineers)



More on the mentioned content can be found at: [www.cadenas.de/electronic-productcatalog/](http://www.cadenas.de/electronic-productcatalog/)



# Mobile internet: Why an App?

MOBILE INTERNET OVERTAKES CLASSIC PC WEBSITE USAGE

Average Use Time	Availability	Up to Date	Multimedia	Mobile Access	Second Screen Enabled
<b>INTERNET PC</b>  ■ Online ■ Offline					
<b>INTERNET MOBILE</b>  ■ Online ■ Offline					

Before we answer this question, you should ask yourself, why has your company its own website?

The big benefits of a website compared to other forms of communication are readily apparent:

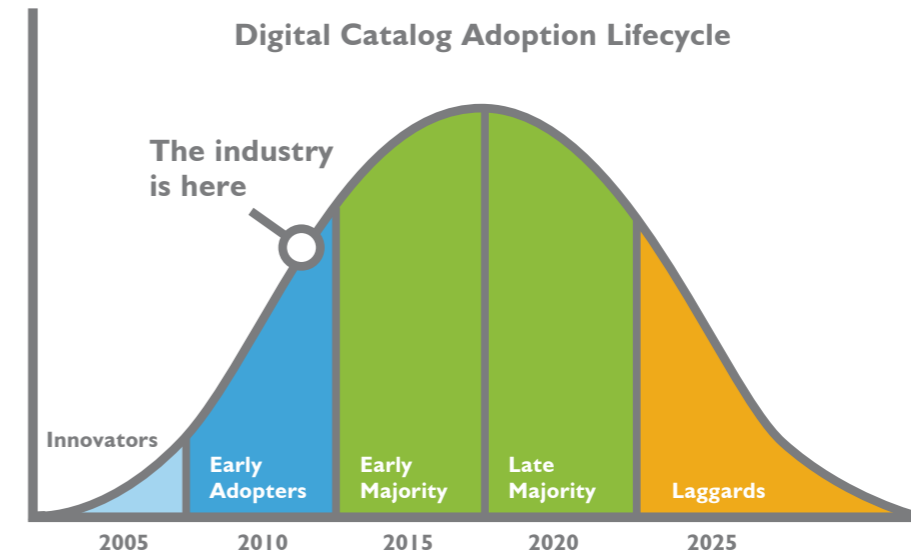
- Information is current
- Information is available anywhere
- Information is available 24/7
- Information can be interactive and multimedia

## AN APP HAS ALL THOSE BENEFITS AND MORE

Reading and watching routines of internet users are currently in a massive transformation process.

The so called „Second Screen“ in form of a smartphone or tablet PC replaces more and more the classic internet usage on PC or laptop.

- According to the G+J Mobile 360° study over 43 percent of the interviewed prefer to use mobile access to surf the web
- Mobile internet users surf longer (www.ard-zdf-onlinestudie.de)
- For two thirds of the users, mobile internet is an important tool to form decisions when buying



## ADVANTAGES OF AN INDIVIDUAL APP IN COMPARISON TO A NORMAL WEBSITE:

- Mobile internet uses smaller screens - conventional websites can only be used with difficulties
- Conventional websites force frequent shifts of media that create problems with mobile internet (e.g. downloads of documents in PDF or Docx format) - this leads to a higher bounce rate of mobile users
- Apps are much more user friendly and have a higher usability

## INCREASING IMPORTANCE OF APPS FOR COMPANIES

Many companies restrict the internet access of their employees at their workstations to protect their company network. Product research has therefore migrated in professional circles towards "second screen" and app usage.

The age of innovators and "early adopters" under those companies who first discovered app technology for themselves is coming to an end. In the coming months, the window of opportunity will close, where companies had a competitive advantage over their competition through their own individual app.

Instead, in a few years the absence of an app and the corresponding lack of experience will be a competitive disadvantage, that can only be corrected through lots of hard work and expenses.

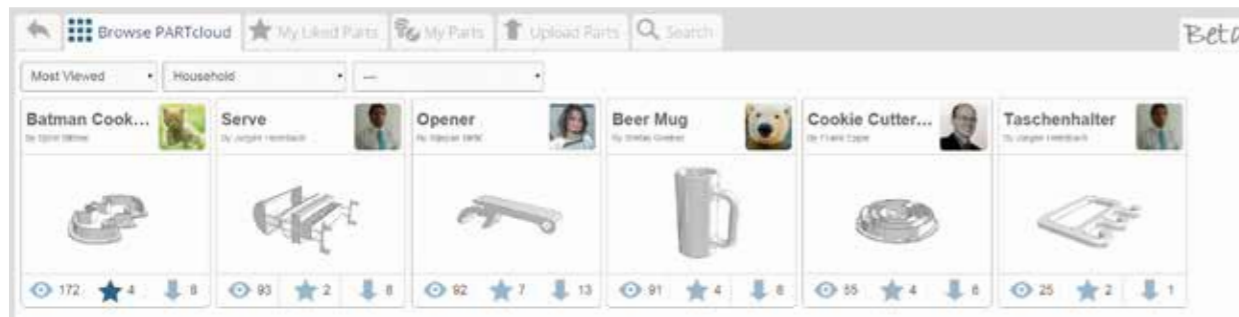
## CADENAS PROVIDES SOLUTIONS

Companies with their own Electronic Product Catalog by CADENAS have already done the biggest step. Based on their eCATALOGsolutions Technology, CADENAS offers their customers:

- A professional, native app for Android or iOS with additional search and information functions
- The beginner solution PART-community mobile, a platform independent webapp with functionality, concentrated on the essentials.
- The Electronic Product Catalog app by CADENAS has been downloaded more than 450,000 times and is the most downloaded app in this sector.

# Successful 3D CAD download portal gets augmented with new 3D printing and 3D models sharing function PARTcloud

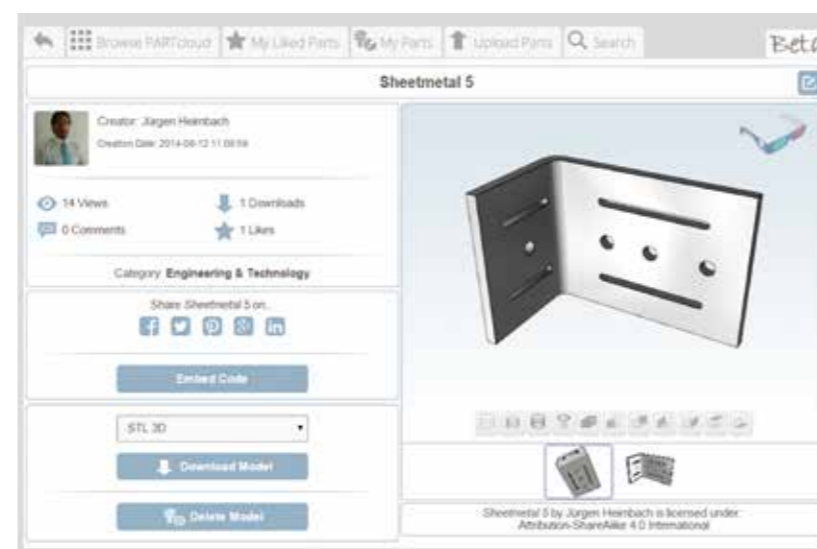
SHARE YOUR OWN CONSTRUCTIONS WITH FRIENDS AND COLLEAGUES AND PROFIT FROM THE EXPERIENCES OF OTHER ENGINEERS



For years, the 3D CAD download portal PARTcommunity by CADENAS has been a top address for engineers looking for 3D CAD models of components. Every month, [www.partcommunity.com](http://www.partcommunity.com) registers over 8 million downloads of CAD models of well known, international manufacturers.

PARTcommunity has now been augmented with the new PARTcloud function: With this innovative tool, engineers can also upload 3D CAD models of their self constructed components and share them with friends and coworkers as well as make them available for download.

With the new PARTcloud function, PARTcommunity completes its range and provides a comprehensive service around everything about 3D CAD models. Through this, the research platform by CADENAS combines free downloads



of millions of 3D CAD models with additional product information like PDF product catalogs, as well as the new PARTcloud function.

The 3D sharing platform PARTcommunity allows its users to determine themselves

which persons are allowed to see their content and who may download it.

## PARTcloud.net offers unique possibilities

### CREATING 3D HTML GRAPHICS FOR WEBSITES

With PARTcloud.net 3D HTML Graphics can be created simply and quickly for your own website. The revolutionary PARTcloud feature offers engineers the possibility to convert self-designed 3D CAD models in a STEP or STL format in only three steps into a WebGL 3D

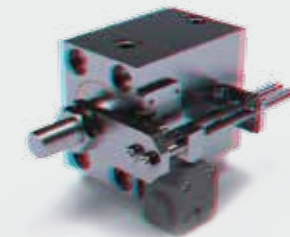
HTML graphic. Decisive benefit: Visitors of the website no longer need a plugin for the 3D view with most internet browsers!

Register for free and test the 3D printing and 3D sharing community today at: [www.PARTcloud.net](http://www.PARTcloud.net)



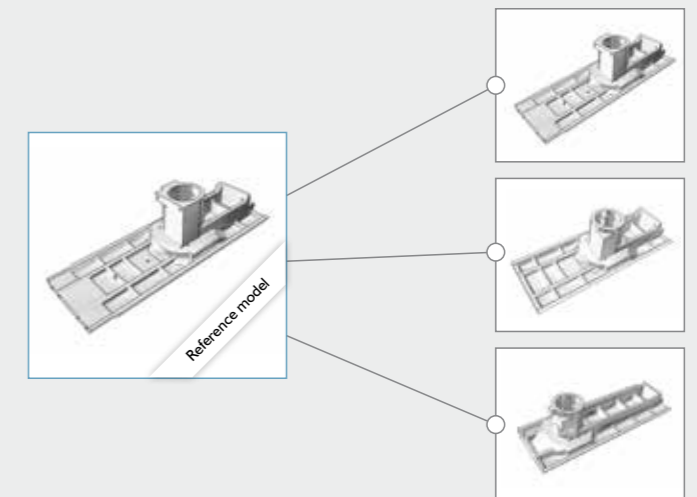
### EXPERIENCE CAD MODELS IN 3D

Users can experience uploaded 3D CAD models with red-cyan glasses in realistic 3D.



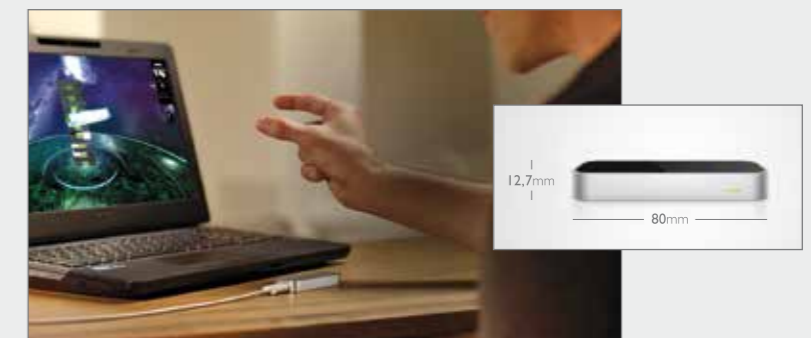
### GEOMETRIC SIMILARITY SEARCH

To find your own fitting parts or those of a friend or coworker fast and simple, the research platform provides comprehensive search methods like Geometric Similarity Search or a Search by Sketch function. This way, parts can be found and compared easily by their CAD geometry.



### LEAP MOTION

With Leap Motion devices ([www.leapmotion.com/product](http://www.leapmotion.com/product)) action comes into play: The 3D CAD models can be turned and moved freely in space with your own hands.







## The winner contributions of the 3D PARTcloud Sharing Challenge

### FASCINATING FORMS AND ATTRACTIVE MODELS

#### CADENAS CONGRATULATES THE THREE WINNERS

The PARTcloud competition, organized by CADENAS, looked for the best, user generated 3D objects shared on the 3D Sharing Plattform PARTcloud.net. At the end of September the winners of the PARTcloud Challenge were chosen.

#### SPINNING WHEEL, MOTOR CYCLE AND POWER STATION

From the great number of submissions, the models of the PARTcommunity from the members Stepjan Birtic, Tomislav

Stasina and Goran Pekic were selected as winners. CADENAS would like to cordially congratulate the winners and rewards the submissions with altogether three amazon vouchers worth 40 Euros.

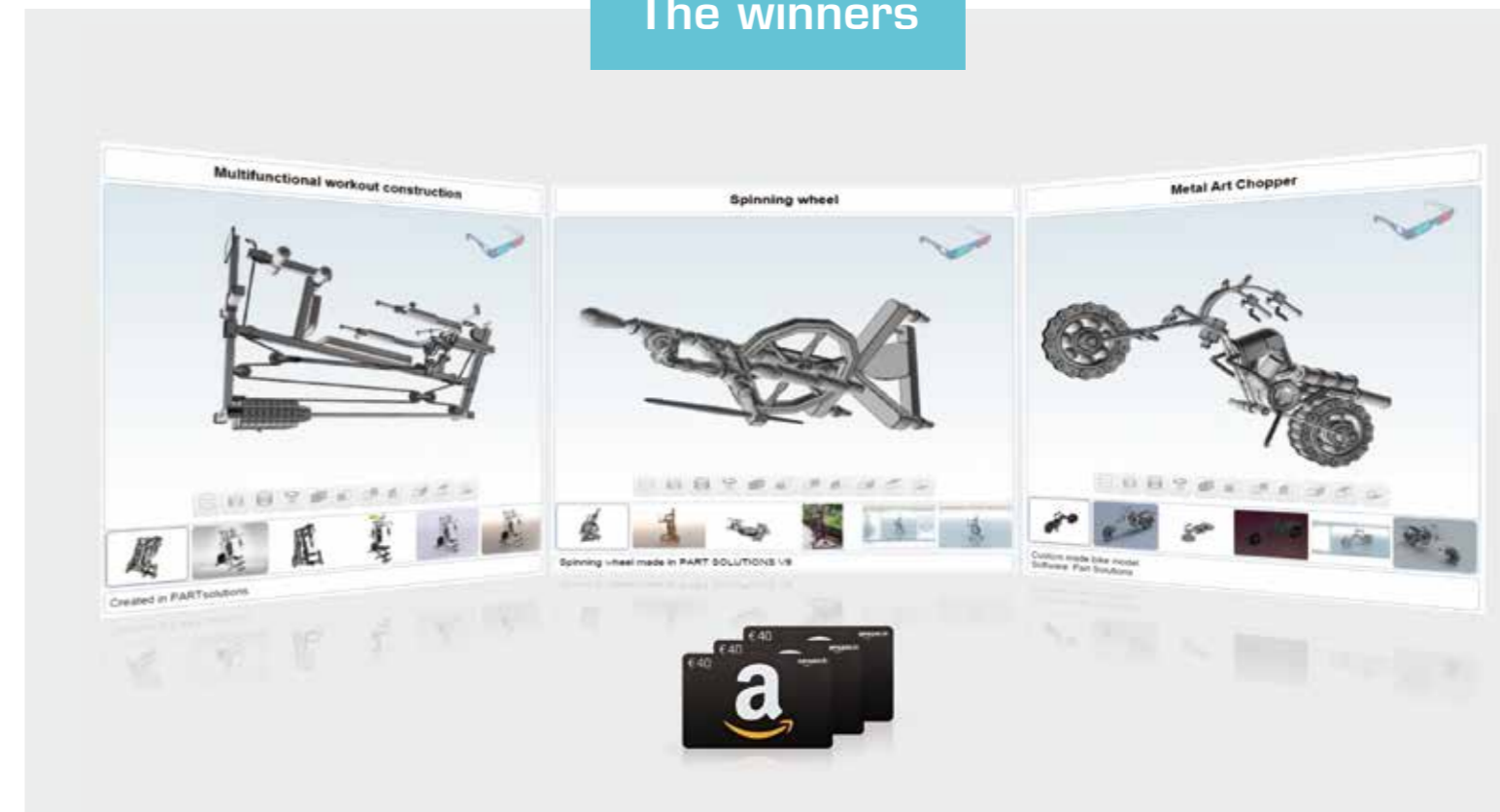
#### 3D MODEL SHARING FEATURE PARTCLOUD

The PARTcloud feature, available since August, allows the users to share self-made contents with colleagues, friends and other PARTcommunity members. This way engineers can upload the 3D CAD models of their self-designed parts in a simple way and share them with

friends and colleagues or provide them for download. Share your 3D CAD models with other engineers in one of the biggest engineering communities and register for free at:



## The winners



**Tomislav Stasina** scored with the 3D CAD model of a multi-functional power station

**Stepjan Birtic** convinced with submitting the model of a spinning wheel

**Goran Pekic** impressed with a metal reproduction of the classical Chopper motorcycle

#### INTERESTING USE CASES WITH ECHALLENGES

Already since November 2012, CADENAS organizes the so called Engineering Challenges with changing cooperation partners, where the participants can win sponsored prizes by solving various tasks. Thus companies with an electronic CAD catalog get the chance to learn more about the application of their products and at the same time giving the users of PARTcommunity an understanding of it.

#### YOU CAN FIND FURTHER INFORMATION HERE:

- You can find the contributions to the PARTcloud Challenge here: [b2b.partcommunity.com/community/challenge/23/partcloud-launch](http://b2b.partcommunity.com/community/challenge/23/partcloud-launch)
- For further information about arranging an Engineering Challenge, please write to: [Marketing@cadenas.de](mailto:Marketing@cadenas.de)
- PARTcloud is also available as mobile app in the Apple App Store and on Google Play: [www.cadenas.de/en/app-store/partcloud](http://www.cadenas.de/en/app-store/partcloud)



## IMPRINT

Editor:  
CADENAS GmbH  
Berliner Allee 28 b + c  
D-86153 Augsburg  
Germany  
Phone: +49 (0) 821 2 58 58 0 - 0  
Fax: +49 (0) 821 2 58 58 0 - 999

Info@cadenas.de  
www.cadenas.de/en

Editorial office:  
Franz Braun, Lieve Nantke,  
Stephanie Benirschke

Graphics, layout:  
Kerstin Reiß, Tobias Meyer

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## DIE CADENAS GMBH SETTING STANDARDS

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

With its customized software solutions the company acts as a link between component manufacturers and their products, and the buyers.

With its 300 employees in 17 locations worldwide, the name CADENAS (Spanish for "chains") has stood for success, creativity, support, and process optimization since 1992.

In its role of initiator and mastermind, CADENAS has already established many innovations and trend in both areas of expertise.

These innovations include:

- 3D CAD models App
- Smart catalog – print catalog becomes digital
- Use of 3D glasses to present CAD models
- Support of the Augmented Reality Technology
- ePRODUCTplacement – make the right part available to the right person at the right time
- Native & intelligent parts
- Open web platform with markup technologie
- With RFP (request of proposal) a seamless transition to the procurement process is possible
- Engineering knowledge database



More information about the latest innovations and the company can be found on our website at:  
[www.cadenas.de/en](http://www.cadenas.de/en)



# CADENAS UNITES

COMPONENT MANUFACTURERS & SUPPLIERS  
WITH THE INDUSTRY!

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.



CADENAS SOLUTIONS  
for **manufacturers & suppliers** of components

## THE ELECTRONIC PRODUCT CATALOG



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

## THE SUPPLIER PORTAL

The platform improves the communication to external suppliers.



## THE VERTICAL MARKETPLACES



Numerous online marketplaces to multiply your Electronic CAD Product Catalog.

## THE PURCHINEERING CONCEPT

Improves the cooperation between purchasing and engineering.



### CADENAS GmbH Augsburg

Berliner Allee 28 b + c  
D-86153 Augsburg  
Phone: +49 (0) 821 258 580 - 0  
Fax: +49 (0) 821 258 580 - 999  
E-Mail: [Info@cadenas.de](mailto:Info@cadenas.de)  
[www.cadenas.de/en](http://www.cadenas.de/en)

### THE CADENAS GROUP WORLDWIDE:

Germany Phone: +49 (0) 821 258 580 - 0  
Austria Phone: +43 (0) 664 2 45 27 13  
Italy Phone: +39 051 04 16 776  
France Phone: +33 (0) 4 81 30 00 04  
Spain Phone: +34 932 749 540

USA Phone: +1 (513) 453 04 53  
Croatia Phone: +385 (0) 35 638 225  
South Korea Phone: +82 505 936 93 60  
Japan Phone: +81 3 59 61 50 31  
China Phone: +86 (0) 21 63 55 13 18