

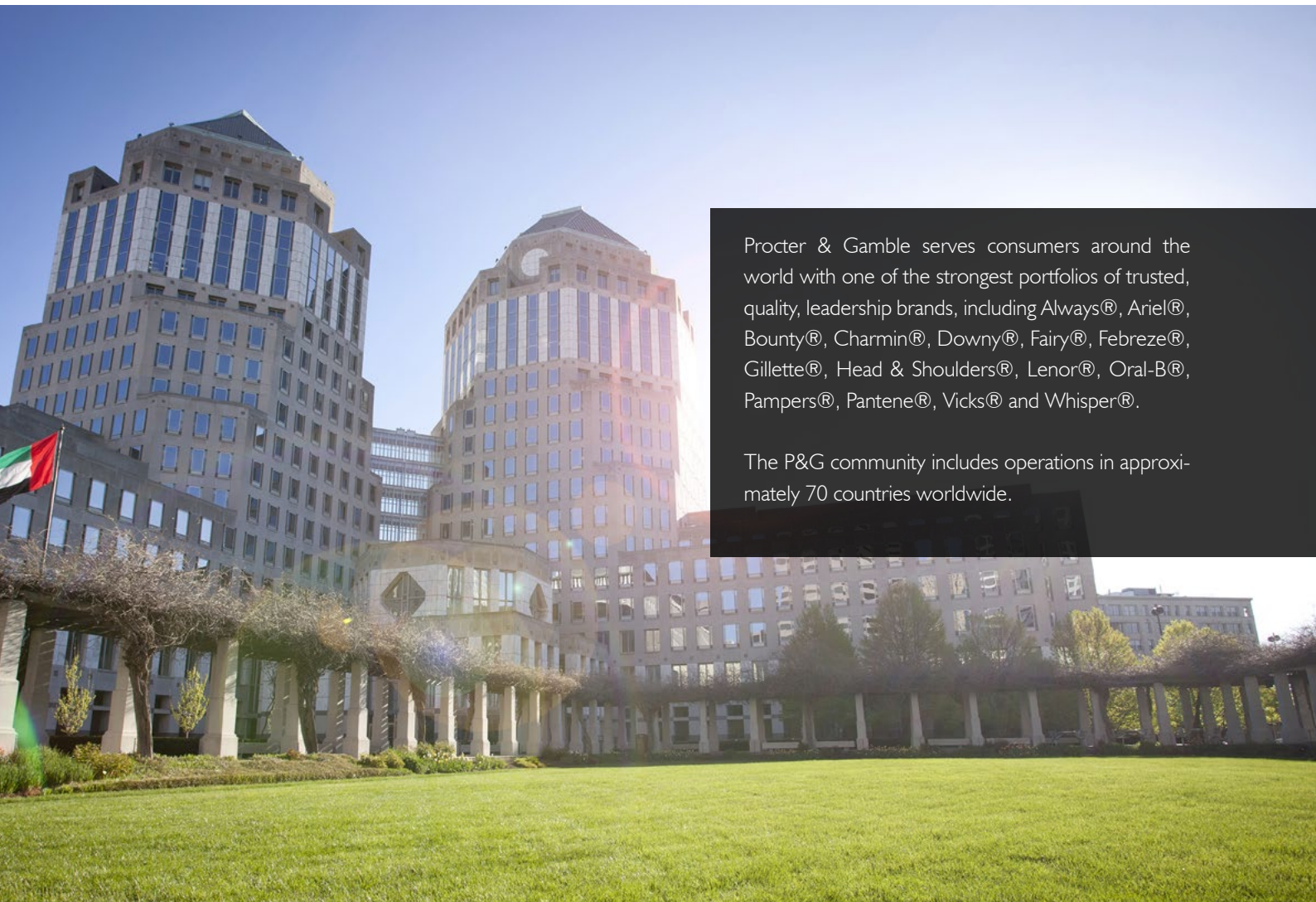


Digital product catalogs optimize development process of production lines

A CADENAS case study highlighting Procter & Gamble



P&G reduces the number of new purchased parts with PARTsolutions by CADENAS



Procter & Gamble serves consumers around the world with one of the strongest portfolios of trusted, quality, leadership brands, including Always®, Ariel®, Bounty®, Charmin®, Downy®, Fairy®, Febreze®, Gillette®, Head & Shoulders®, Lenor®, Oral-B®, Pampers®, Pantene®, Vicks® and Whisper®.

The P&G community includes operations in approximately 70 countries worldwide.

Starting position: costly component search & manual insertion of product data

P&G engineers and designers require a large variety of digital product data of standard and purchased parts from various component manufacturers to operate their production lines.

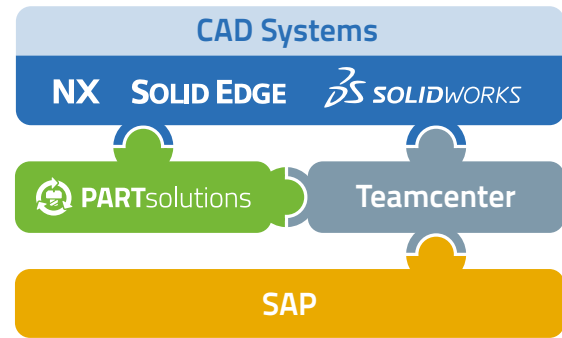
Before implementing CADENAS' Strategic Parts Management PARTsolutions in 2015, Procter & Gamble had an internal parts library with limited search functions. When engineers and developers at P&G needed a purchased part not found in the

internal library, they searched the Internet manually for the relevant product information of the respective manufacturer.

"The time-consuming search for components led our company to a large number of newly created components as well as to duplicates," said Sascha Hartung, Commercial Parts Lead Designer at Procter & Gamble. "Moreover, we were manually transferring component information into our systems."

Implementing the parts management PARTsolutions

P&G set a goal to make all product data in all CAD formats digitally available at every company location worldwide. This would increase the reuse of components and reduce the new creation of components and costs. Procter & Gamble has been relying on the Strategic Parts Management PARTsolutions of the software manufacturer CADENAS since 2015 to implement this company strategy in the designing and engineering of production lines. In addition to accessing millions of standard and purchased parts from more than 700 manufacturer product catalogs, the software solution also offers intelligent search methods as well as end-of-life information of components.



PARTsolutions now supports engineers and developers in their daily work at P&G. For this purpose, CADENAS parts management is connected to the PLM system Teamcenter™ of Siemens PLM and the CAD systems Solid Edge®, SOLIDWORKS® and NX® used in the P&G group.

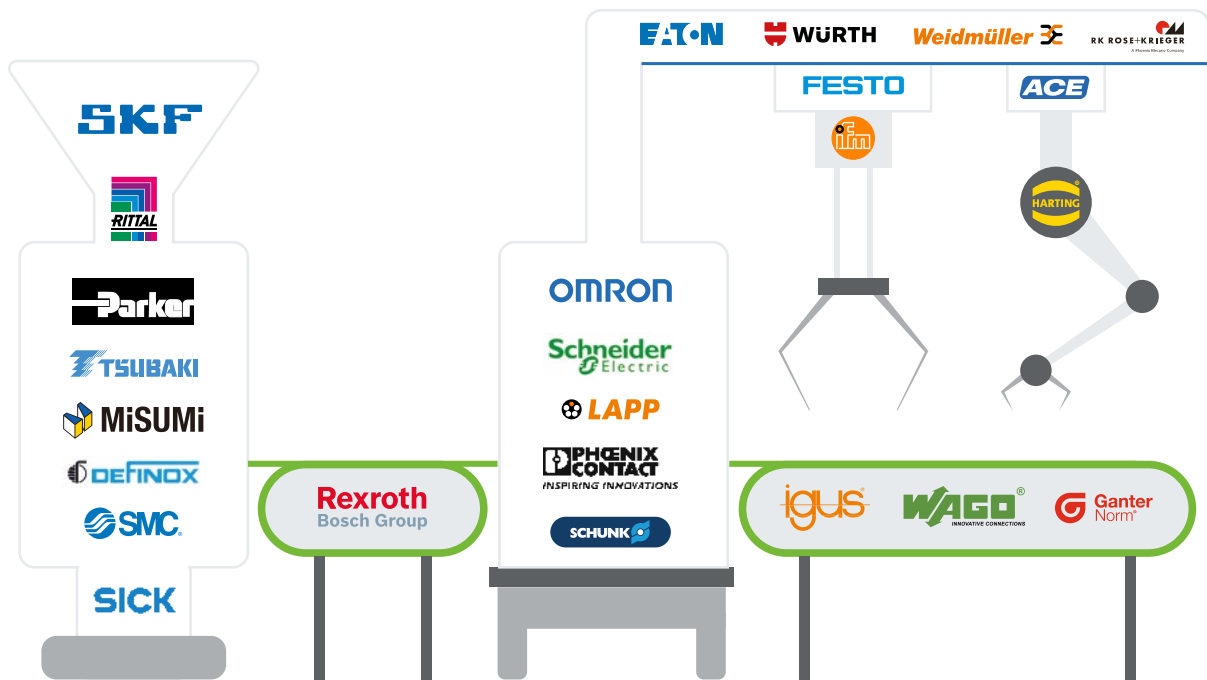
Digital manufacturer catalogs from PARTsolutions integrated directly into the design and engineering of P&G production lines



Globalization and digital transformation generally present great challenges to industrial companies. Component manufacturers are forced to meet the increasing demands of the manufacturing industry, to which P&G also belongs. For this reason, a large number of component manufacturers have started providing their products digitally, with all the required component information in a digital product catalog.

In engineering production lines, engineers and designers need a variety of digital product information about standard and purchased parts of diverse component manufacturers. The

Strategic Parts Management PARTsolutions by CADENAS offers more than 700 manufacturer certified product catalogs which are based on the eCATALOGsolutions technology also powered by CADENAS. With this smart catalog, manufacturers of standard and purchased parts can extend their digital product information to include important metadata (such as kinematics, end-of-life, customs tariff numbers, etc.). This makes it easier for companies like P&G to include those components into their designs in a simple and quick manner and subsequently into the real production lines.



» Our engineers and developers receive the needed components a lot faster now. We were also able to improve our data quality significantly by receiving the verified product data, CAD models and the metadata directly from the manufacturer. «

Sascha Hartung
Commercial Parts Lead Designer
Procter & Gamble

Quick and easy search for purchased parts as well as improved data quality

When engineers need a component from a manufacturer for their design of a production line, they can easily find it, thanks to the comprehensive intelligent search methods of the Strategic Parts Management software PARTSolutions, such as the full-text search or the variable search.

When the standard or purchased part found in PARTSolutions has been released and used, the repeat part is marked green in the system and can be directly integrated into the engineer's design with a double-click. Newly purchased parts, which were not released in the past, are marked with a grey bullet and can be released per Commercial Parts Request (CPR). In this CPR form within PARTSolutions, all component-specific information is automatically taken over from the

original manufacturer's catalog. Manual gathering of product data when creating new components is no longer necessary, which also minimizes potential sources of error. PARTSolutions then automatically creates native CAD data for Solid Edge, SOLIDWORKS and NX. In addition, the metadata of the 3D CAD models are automatically transferred to Teamcenter and the respective SAP number is assigned – thanks to the deep integration into the PLM system.

“Our engineers and developers receive the needed components a lot faster now. We were also able to improve our data quality significantly by receiving the verified product data, CAD models and the metadata directly from the manufacturer,” Hartung says.

Actions **View & search results** **Search methods & parameters**

Catalog selection & parts selection
including display of release status

Release system

Status indicating bitmaps for table view:

- End of life
- Rejected
- Existing commercial
- Possible for new CPR

PARTNO	CPSTATUS	PART TITLE	PARTSPEC	MODCLASS	MMK	PART TYPE	MATERIAL	WEIGHT	SPARE/RECOM	CE	NR
218		CYLINDER, COMPACT, DOUBLE ACTING	PART NO. 15607, ADVU 20-50-A-P-A		7047203	Commercial Mechanical	Composite Commercial	0.794	N (Normal)		
219		DOUBLE ACTING CYLINDER	ADVU 25-15-A-P-A		3723020	Commercial Mechanical	Composite Commercial	0	N (Normal)		
220		CYLINDER, COMPACT, DOUBLE ACTING	PART NO. 156012, ADVU 25-15-P-A-P		3723020	Commercial Mechanical	AL	0.018	N (Normal)		
221		CYLINDER, COMPACT, DOUBLE ACTING	PART NO. 156012, ADVU 25-25-A-P-A		20341210	Commercial Mechanical	AL	0.25	N (Normal)		
222		DOUBLE ACTING CYLINDER	ADVU 25-20-A-P-A		2018532	Commercial Mechanical	Composite Commercial	0	C (On Spare, SAP/MMR Number only)		
223		CYLINDER, COMPACT, DOUBLE ACTING	PART NO. 156014, ADVU 25-40-A-P-A		3019489	Commercial Mechanical	Composite Commercial	0.25	N (Normal)		
224		CYLINDER, COMPACT, DOUBLE ACTING	PART NO. 156013, ADVU 25-50-A-P-A		2034230	Commercial Mechanical	Composite Commercial	0.32	N (Normal)		

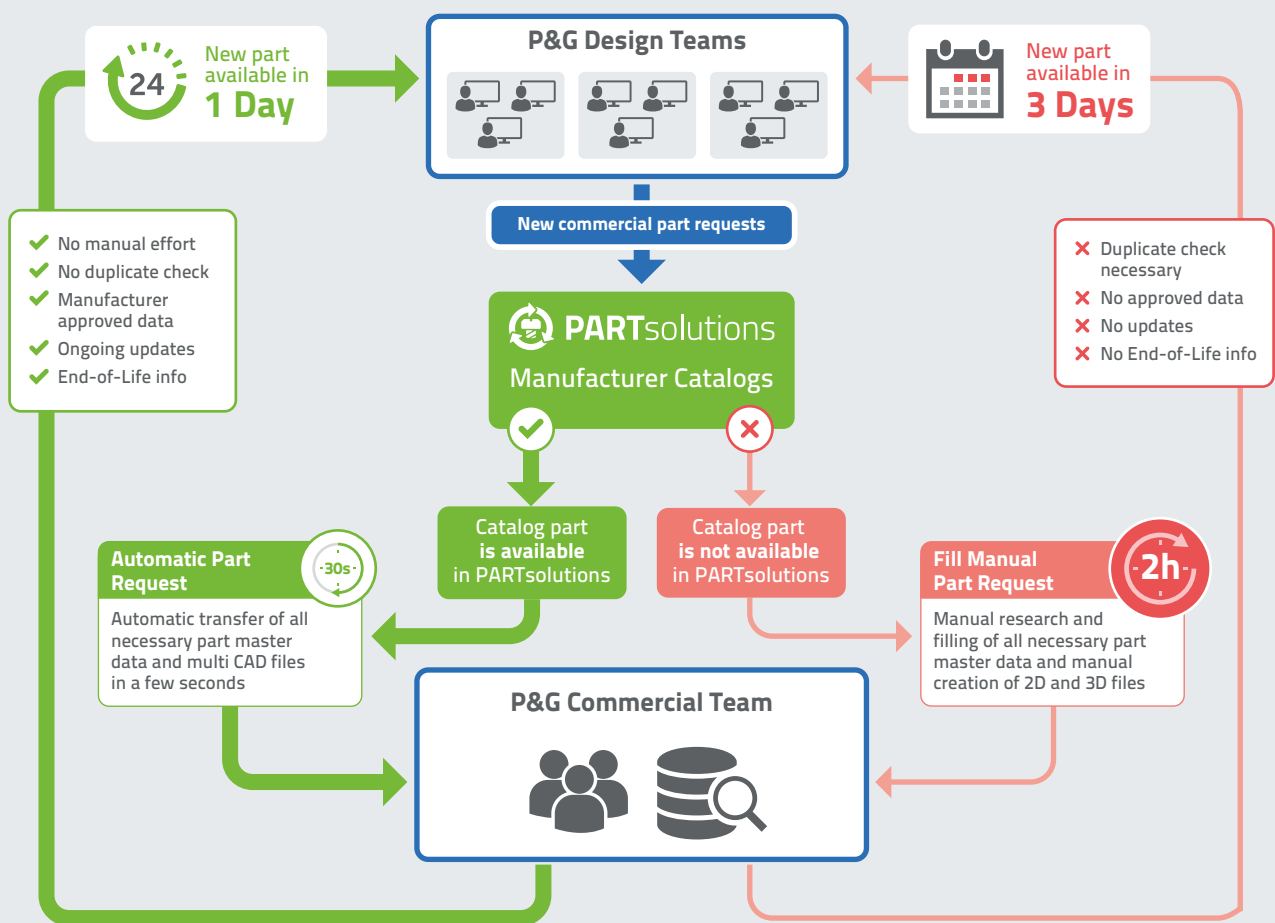
Technical details: 156007 ADVU 20-50-A-P-A

Definition of release process, preferred parts and suppliers with PARTsolutions:

Only approved, green marked components are available to engineers for their design. If a new component is actually required in certain cases, it runs through a release process defined by the customer.

Through PARTsolutions, administrative costs for new plant units are greatly reduced. In the past, the P&G administrator, for example, had to manually remodel the 3D CAD models of the required new purchased parts according to manufacturer specifications. In addition, all metadata in the particular CAD system as well as the PLM system Teamcenter had to be updated manually, which took about one hour per com-

ponent. Now with PARTsolutions, the administrator needs considerably less time since the native 3D CAD models and metadata of the manufacturer are automatically transferred to both the CAD system as well as the PLM system. Consequently, engineers and project leaders obtain the desired digital parts information much quicker.



Manufacturer catalogs available in PARTsolutions save time and effort

A source of 700 manufacturer catalogs ensures a clean and reliable data set with correct manufacturer's information. Furthermore engineers do no longer have to manually remodel the 3D CAD models of the required new purchased parts according to manufacturer specifications.

Always the current component data through end-of-life information

With PARTsolutions, customers like P&G benefit from up-to-date, maintained parts information since the component manufacturers continuously update their digital product catalogs, ensuring the accuracy of the 3D CAD models and their metadata. In addition, end-of-life information is also provided in PARTsolutions. Engineers and designers are informed early on about discontinued components and at the same time receive information about succession parts directly from the manufacturer.

Cost savings through higher reusability of purchased parts

The use of CADENAS' Strategic Parts Management at Procter & Gamble has led to a series of optimizations in the development process of production lines: Since introducing PARTsolutions, creation of new commercial parts has been reduced significantly as the team is now able to reuse part designs in various projects because they are in a common data base. This means that costs for maintaining the parts has also been reduced. Although the current projects at P&G are similar in

volume and complexity to those of the past, engineers of the consumer goods manufacturer now use more existing components within their designs via PARTsolutions.

"These are real savings we can verify. We introduced score cards before implementing the CADENAS parts management. We can compare the figures obtained effectively with those detailed reports. The savings are a great success for us," Sascha Hartung says.

How component manufacturers integrate their components into the engineering process with a digital product catalog

Manufacturers of technical components who wish to integrate their products directly into the planning and development process of their customers' production lines can now seamlessly provide their product data in a CADENAS Electronic Product Catalog. This ensures that the components are automatically integrated into PARTsolutions and thus also into the engineering environment of the respective customers.

>> The more digital product catalogs and their intelligent product details are available to us within PARTsolutions, the easier, faster and more cost-effective we can engineer and design our production lines. <<

Sascha Hartung , Commercial Parts Lead Designer, Procter & Gamble



Company Descriptions



www.pg.com

Procter & Gamble

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www.cadenas.de/en

CADENAS GmbH

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 with their products and the buyers.

With its 380 employees in 19 locations worldwide, the name CADENAS (Spanish for "chains") has stood for success, creativity, support, and process optimization since 1992.