

cideon software



CADENAS GEOsearch and SAP with CIDEON

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Agenda



Component reuse and its advantages

Geometric Similarity Search

Combining GEOsearch and SAP data

Demonstration

Wrap up

Component reuse and its advantages

- **Accelerated Design:**

- Less redundance and redevelopment
- Less administrative tasks (document management, checks, drawing creation, ...)

- **Logistics and Manufacturing:**

- Reuse of existing information (Procurement-, Purchasing-, Manufacturing data and documents)

- **Cost Estimates:**

- Faster cost predictions thanks to existing calculations

Reliable Product Introduction

Agenda



Component reuse and its advantages



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How you can benefit

How to find similar parts

- Typical methods to organize similar components:
 - Folder Structures
 - Classification
 - Descriptive methods

Create Document: Basic Data Inventor Part (IPT)

Classification manual conversion

Document

Document * Part 000 Version 00

Deletion Flag Document Structure CAD Indicator Hierarchy

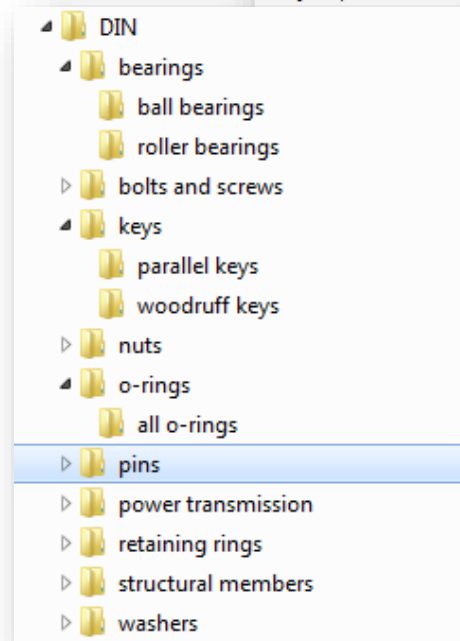
Document Data Addnl Data Descriptions CIDEON Cost Analytics

Document Data

Description	AS_PR_Cube
Document Status	WR Work request ● Not Released
User	FPR Felix Finster, Consulting
Lab/Office	
Change Number	Valid From
Authorization Group	

Originals

Appl.	Application	Storage Cat.	File Name
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Document Data Addnl Data Descriptions CIDEON Cost Analytics

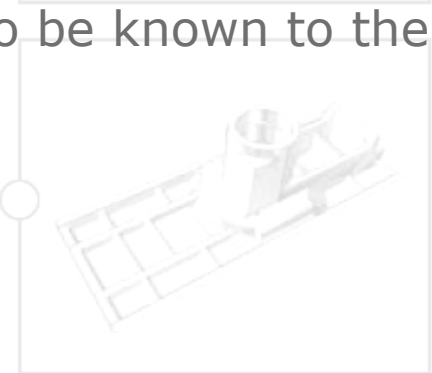
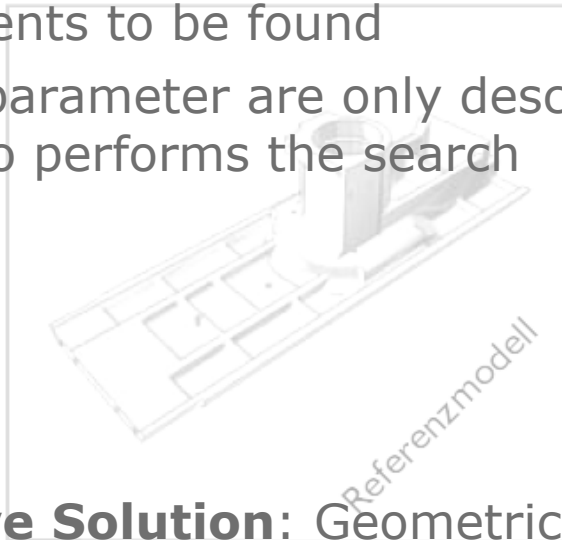
Document classification 3D CAD

Mass	
Weight Unit	
Basic Material	Aluminium
CAD System	INVENTOR
CAD Project Environment	PE-001-GR-OS
Project / Order	90074522
	public

How to find similar parts

Restrictions of descriptive methods:

- Classification has to be modeled and set up
- Users have to enter data into classification / descriptive fields to enable components to be found
- Search parameters are only descriptive and have to be known to the user who performs the search



Alternative Solution: Geometric Similarity

- Independent from description and classification
- Based on CAD geometry and corresponding fingerprints
- High result set for reusable parts

Better evaluation for found components

Geometrical similar – but can it be used as well?

	Preview	Catalog	Projekt
1		GeoSear...	023013006
	100%		
2		GeoSear...	023021003
	78%		
3		GeoSear...	023013007
	77%		
4		GeoSear...	0239149248
	72%		
5		GeoSear...	023081031
	71%		

Geometric Similarity

The screenshots show SAP interfaces for material and document data. The top screenshot is titled "Display Document: Basic Data Inventor Part (IPT)" and shows document details for document 10000172326. The middle screenshot is titled "Display Material" and shows material data for material 13006, including general data and authorization groups. The right screenshot is titled "ICV Side Panel" and shows a bar chart with three bars of varying heights, representing quality notifications.

Information from PLM



Agenda



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How you can benefit

Advantages of GEOsearch Connector

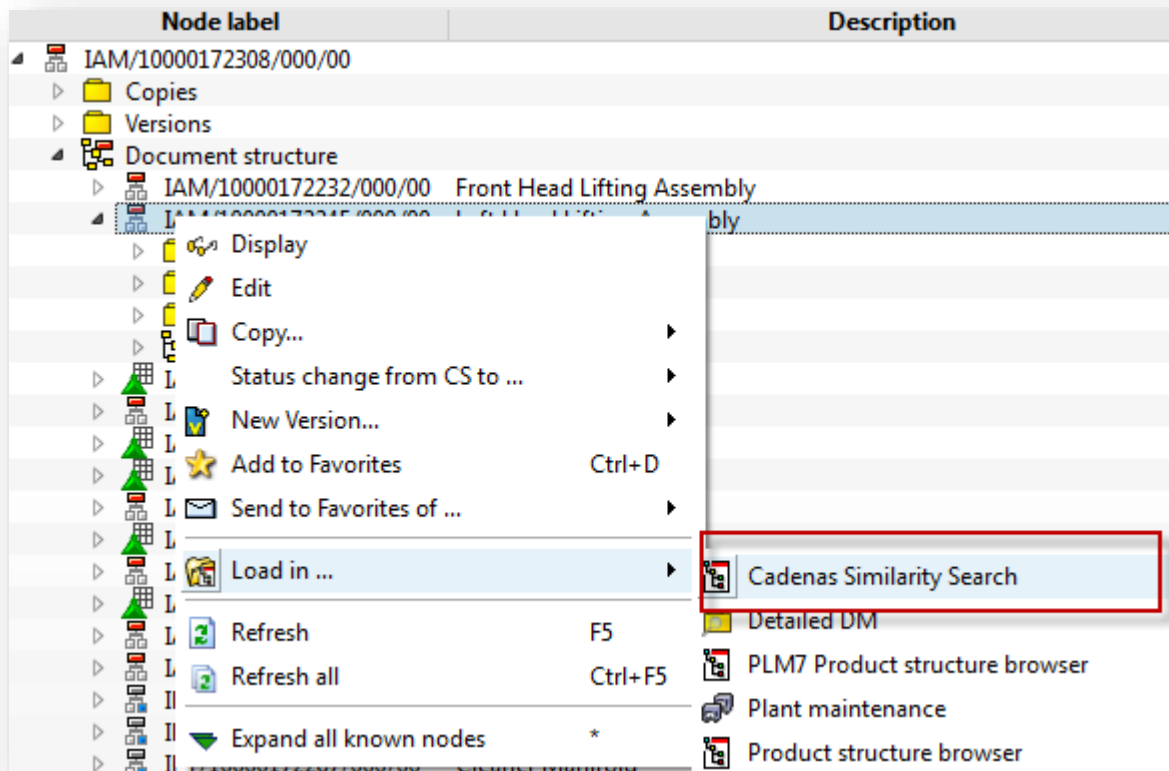
- Direct Integration to SAP, CAD and GEOsearch
- CAD components can directly be used as reference geometry

The screenshot displays the CIDEON Workspace 2013 interface. On the left, there is a sidebar with navigation options: 'Dateisystem', 'Zuletzt im CAD verwendet', 'Facility Management', 'PSM', 'Objektbrowser', and 'Suchen & Finden'. Below these are icons for 'SAP' (labeled 'Im CAD geladen') and 'CAD-Struktur'. The main window shows the 'Autodesk Inventor Professional 2013 - CAD-Struktur' table.

Knotenname	Beschreibung Dokument	Statusanzeige (IC)	Konflikt	Eingeeckert	Vorschau	zuständigen Sach
10000172308/IAM/000/01	Heads Assembly	●●●●	🔗	🔒	🔧	FFR
10000172232/IAM/000/00	Front Head Lifting Assembly	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172245/IAM/000/07	Left Head Lifting Assembly	●●●●	🔗	🔒	🔧	FFR
10000172233/IPT/000/00	Blechhalter 138	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172234/IPT/000/00	Sechskantschraube DIN 933 M6x25	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172235/IPT/000/00	Scheibe DIN 125-1 B 6_4	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172236/IPT/000/00	Zylinderschraube DIN 912 M6x40	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172237/IPT/000/00	sechskantmutter_din_934_m12-10	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172238/IPT/000/00	Sechskantschraube DIN 933 M12x100	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172239/IPT/000/00	Skt-schraube DIN933 M12x100	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172240/IPT/000/00	6kt-schraube M12x100 DIN933	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172241/IPT/000/00	Scheibe DIN 125-1 B 13	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172242/IPT/000/00	Sechskantschraube DIN 558 M24x60	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172243/IPT/000/00	Scheibe DIN 125-1 B 25	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172244/IPT/000/00	Left Head Shaft	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172313/IPT/000/00	Sicherungsring DIN 471 12x1	●●●●	📄	🔒	🔧	SNLH_DEMO
10000172321/IPT/000/00	Klotz	●●●●	📄	🔒	🔧	SNLH_DEMO

Advantages of GEOsearch Connector

- Direct Integration to SAP, CAD and GEOsearch
 - Search can be performed from any component via context menu



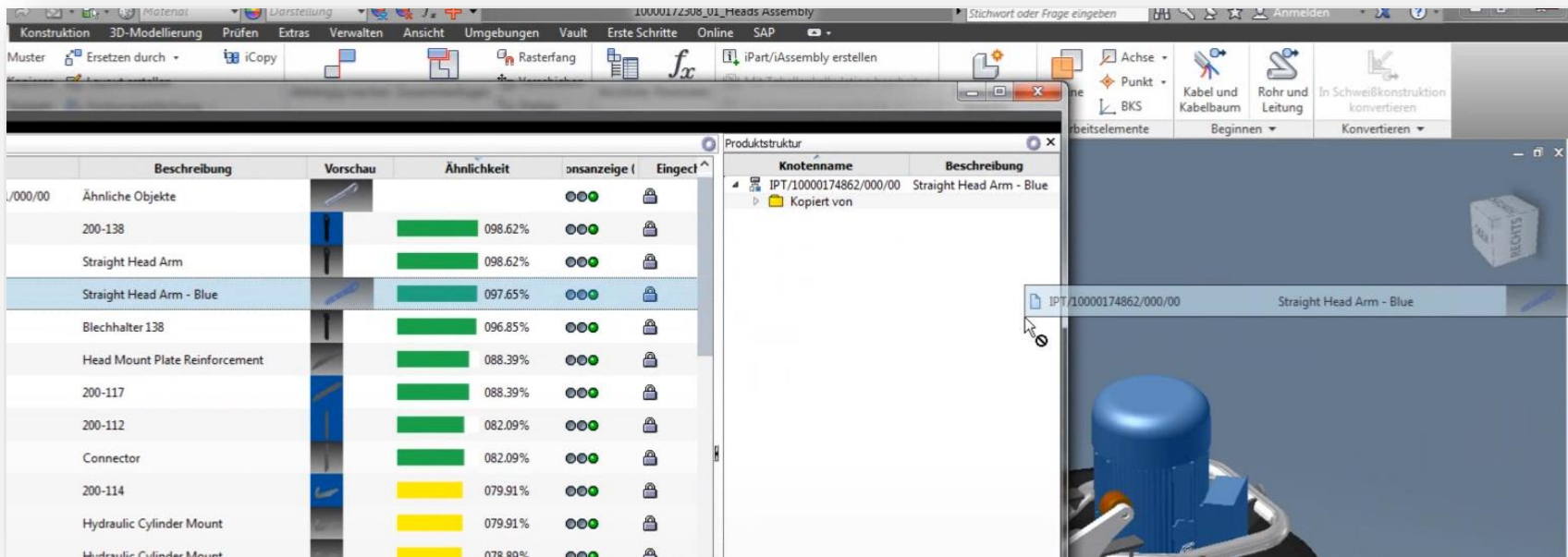
Advantages of GEOsearch Connector

- Direct Integration to SAP, CAD and GEOsearch
 - Clear result set from GEOsearch including level of match, additionally enriched with SAP information:
 - Is the document released already?
 - Jump directly into material master
 - Link objects and where-used can easily be displayed

Name	Beschreibung	Ähnlichkeit	Eingecheckt	Versionsanzahl (con)	Beschreib
BPT/100000000000010000171799/000/00	Ähnliche Objekte				
BPT/10000171737/000/00	300-002	100.00%	●●●	●●●	300-002 Einheitsteil
BPT/10000171748/000/00	200-116	100.00%	●●●	●●●	200-116
BPT/10000172284/000/00	300-002	100.00%	●●●	●●●	300-002
BPT/10000172295/000/00	200-116	100.00%	●●●	●●●	200-116
BPT/10000171775/000/00	300-002_MIR	099.77%	●●●	●●●	300-002_MIR
BPT/10000172333/000/00	300-002_MIR	099.77%	●●●	●●●	300-002_MIR
BPT/10000171745/000/00	200-145	099.57%	●●●	●●●	200-145
BPT/10000172292/000/00	200-145	099.57%	●●●	●●●	200-145
BPT/10000171747/000/00	200-110	099.32%	●●●	●●●	200-110
BPT/10000172294/000/00	200-110	099.32%	●●●	●●●	200-110
BPT/10000171746/000/00	200-143	087.90%	●●●	●●●	200-143
BPT/10000172293/000/00	200-143	087.90%	●●●	●●●	200-143
IAM/10000171738/000/00	20-055	084.87%	●●●	●●●	20-055
IAM/10000172285/000/00	20-055	084.87%	●●●	●●●	20-055
IAM/10000171776/000/00	20-055_MIR	084.81%	●●●	●●●	20-055_MIR
IAM/10000172334/000/00	20-055_MIR	084.81%	●●●	●●●	20-055_MIR
BPT/10000171741/000/00	200-114	084.56%	●●●	●●●	200-114
BPT/10000172288/000/00	200-114	084.56%	●●●	●●●	200-114
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BPT/10000172299/000/00	200-117	078.74%	●●●	●●●	200-117
BPT/10000171768/000/00	200-138	077.84%	●●●	●●●	200-138
BPT/10000172326/000/00	200-138	077.84%	●●●	●●●	200-138
BPT/10000172233/000/00	Blechhalter 138	077.24%	●●●	●●●	Blechhalter 138
BPT/10000171722/000/00	400-007	074.75%	●●●	●●●	400-007
BPT/10000172279/000/00	400-007	074.75%	●●●	●●●	400-007
BPT/10000171743/000/00	200-112	073.09%	●●●	●●●	200-112

Advantages of GEOsearch Connector

- Direct Integration to SAP, CAD and GEOsearch
 - Immediate use of components from result set by using the SAP PLM CAD Integration
 - Open directly in CAD via drag&drop for easy replace
 - Additional documents available on the spot

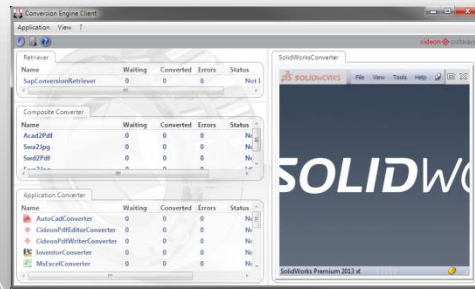


Adding Content to GEOsearch

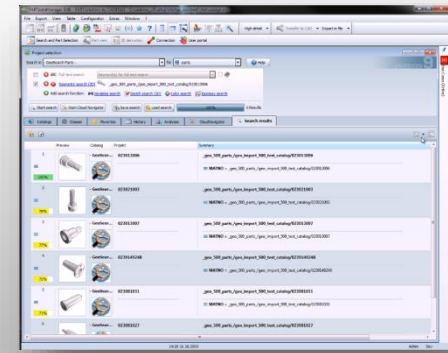
- Automated import of GEOsearch content directly within the design process
 - At status change
 - On demand
 - Step by step population of GEOsearch database and hence increasing hit ratio



CIDEON Conversion Engine



CADENAS GEOsearch



Release of Document

Creation of Neutral Format and handover to GEOsearch

Creation of fingerprint and import of metadata

Agenda



Component reuse and its advantages

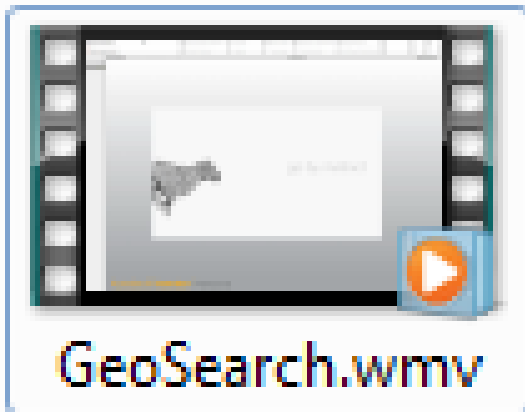
Geometric Similarity Search

Combining GEOsearch and SAP data



Demonstration

How you can benefit



- **Demo Steps:**
 - Open Assembly
 - Navigate to component which should be replaced
 - Execute the GEOsearch
 - Replace component with similar part from result set

Agenda



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Demonstration



How you can benefit

How you can benefit

Complete Integration

Population of GEOsearch content as well as searching

Use search results

Found components can easily be loaded into CAD via drag&drop

Flexible and enhanceable

Customizable result list, limits, search methods

User friendly

Simple execution via context menu, directly on CAD structure

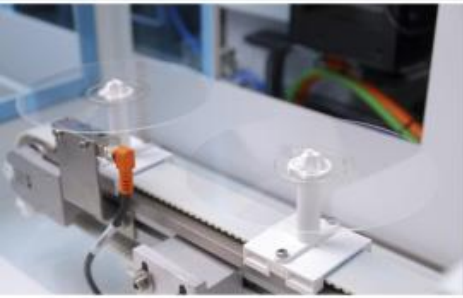
Tailored Information

Object information (SAP data) plus additional documents

State-of-the art Technology

Use of CADENAS GEOsearch and SAP PLM CAD Integration

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Thank you!

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