

CSK - CAD Systeme Kluwetasch



Introduction to MRP-Link

- Introduction to MRP-Link
- Available Modules
- Modules in detail
- MRP-Link - middleware or host
- Summary and Conclusions

Current Status:

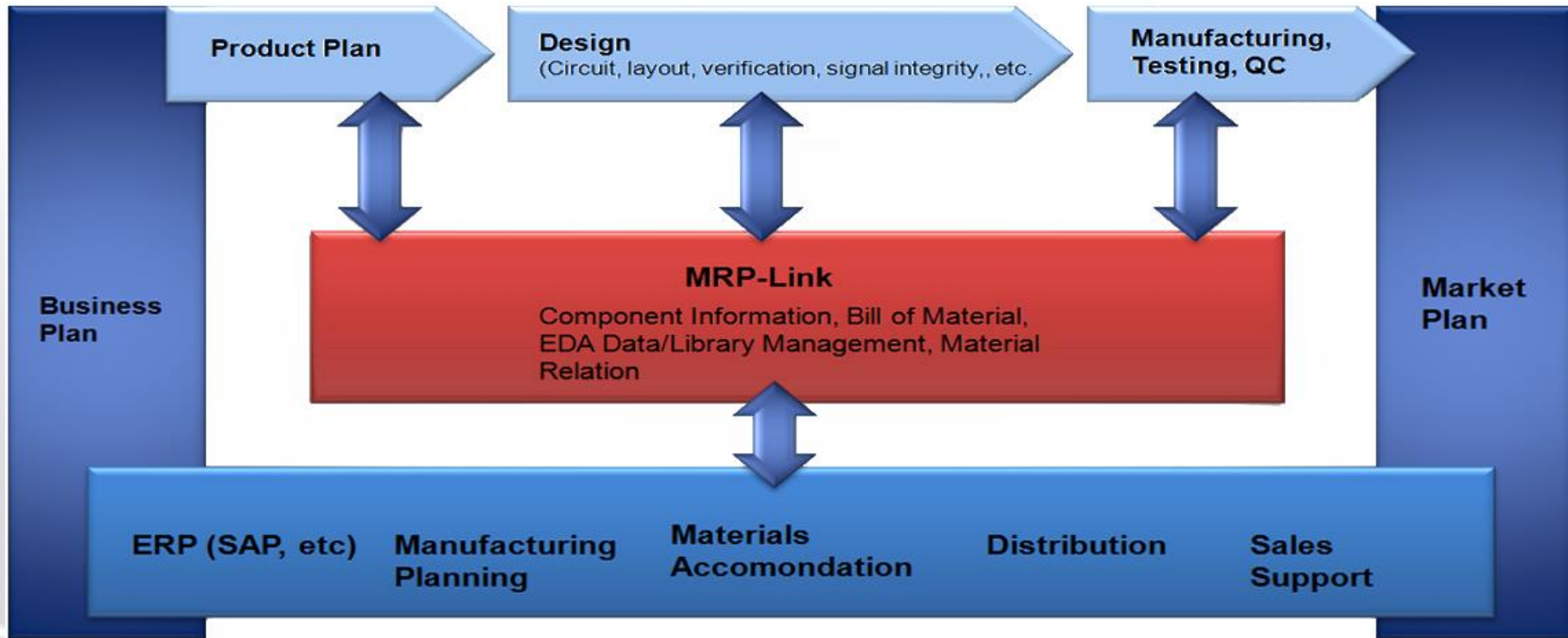
- Development companies have different software systems
- Each system has an own data-pool including data it needs
- No system bundles all necessary information's
- No complete communication between all systems
- Systems can't merge result documents from different systems in one document to complement it

Key functions of MRP-Link:

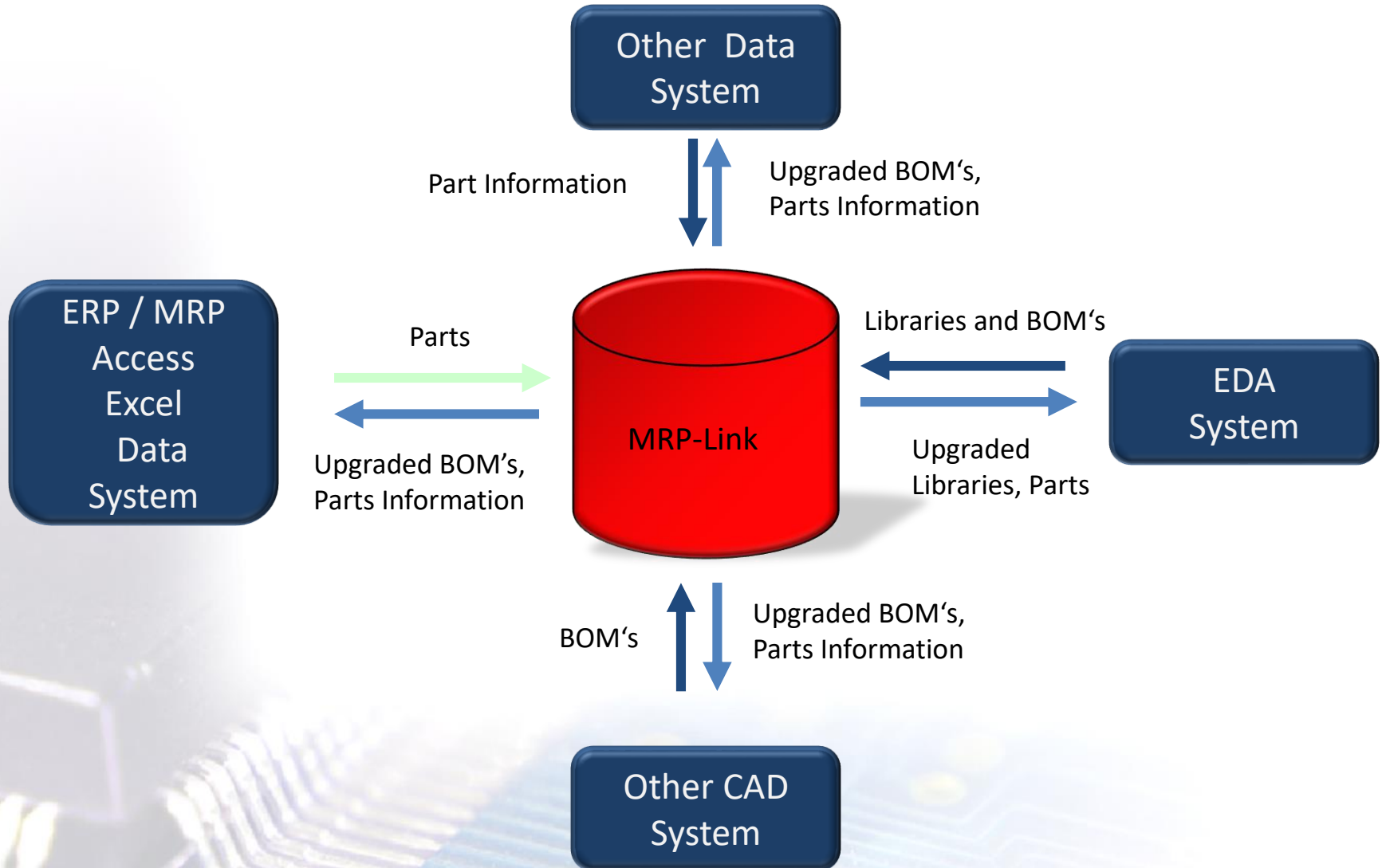
- Manage and merge Parts information from different systems
- Manage, merge and complement BOMs from different systems
- Define and manage relations of Parts and BOM's
- Transfer BOMs to external systems
- Export part information's to other systems
- Communication directly with EDA-Systems (CADSTAR)
- Exchange data with standard CSV-Format for import and export

MRP-Link Workflow

Providing a collaborative environment to assist you during the development process.



Dataflow



Library
Searcher

➤ Library Searcher as a Quick & Powerful Search Engine

Library
Replication

➤ CADSTAR Library & Data replication

Part Stock /
Synchronization

➤ Manage Parts and Parts Information / Synchronisation with other MRP Systems

Alternative
Database

➤ Controlling of secondary supplier sources from any part

BOM
Management

➤ Management of hierarchical BOM including history

BOM
Management
Report

➤ Report of flat and hierarchical BOM

BOM
Extractor

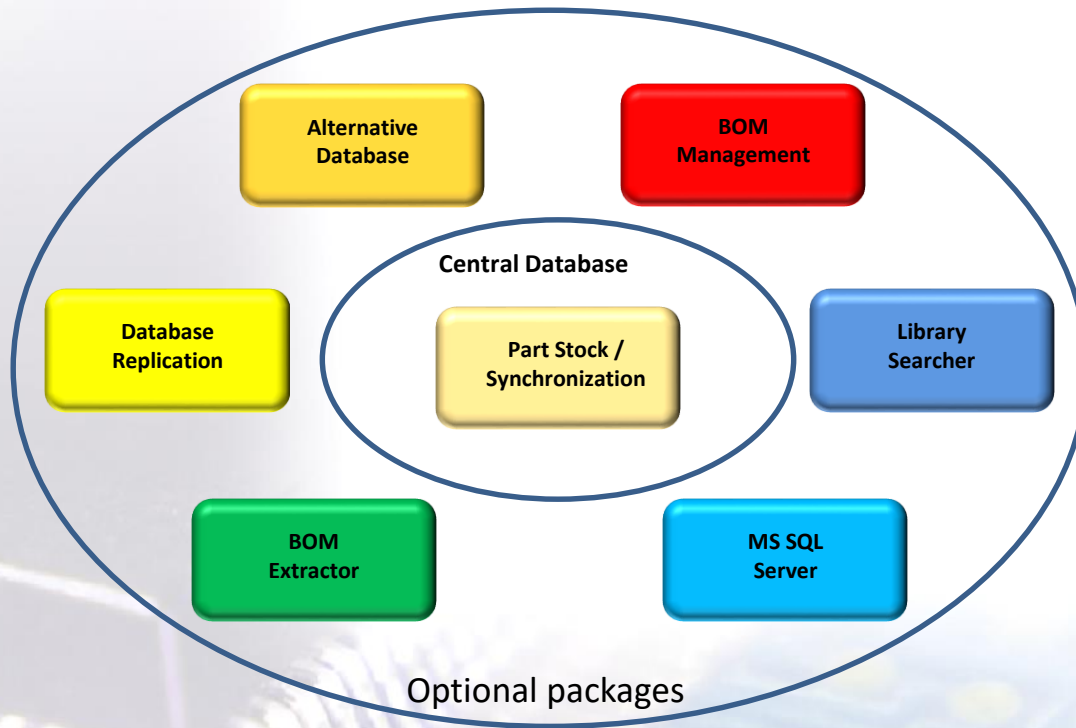
➤ Quick easy transfer from current design to Excel CSV format

MS SQL
Server

➤ Microsoft SQL Server 2014 Express free of charge

Combination of MRP-Link Modules

Combine individually modules depending of the current workflow and requirements.



About MRP-Link

CSK

CSK - CAD Systeme Kluwetasch MRP-Link 16.0
 MRP-Link Version: 2015-04-30-1
 Database Version: 16.0.0
 Online-Documentation: [CADSTAR MRP-Link Help](#)
 Hotline: Hotline@cskl.de

Company: CSK - CAD Systeme Kluwetasch e.K.
 Country: Germany
 Zip Code: 24161
 Town: Altenholz
 Phone: +49-431-329170
 Fax: +49-431-3291726
 Email: Hotline@cskl.de
 Web: <http://www.cskl.de>

Your Groups: Administrator
 Your Representation: None

Product	Expiration date	Available licence	In use	Re
AlternativeDb	13.01.2018 00:0...	5	2	1
BomExtractor	13.01.2018 00:0...	5	2	1
BomManagement	13.01.2018 00:0...	5	2	1
LibraryReplication	13.01.2018 00:0...	5	2	1
LibrarySearcher	13.01.2018 00:0...	5	2	1
PartsStock	13.01.2018 00:0...	5	2	1

CADSTAR MRP-Link is a registered trademark of CSK - CAD Systeme Kluwetasch e.K.

Close

Key functions:



- Fast searching (find any part in 1 second or less)
- Direct communication with CADSTAR (drag & drop,...)
- Define unlimited search criteria by combing by “AND” and “OR”
- Compare values on different ways
- Reuse of queries by saving often used queries
- Bi directional synchronizing of Parts Stock and CADSTAR

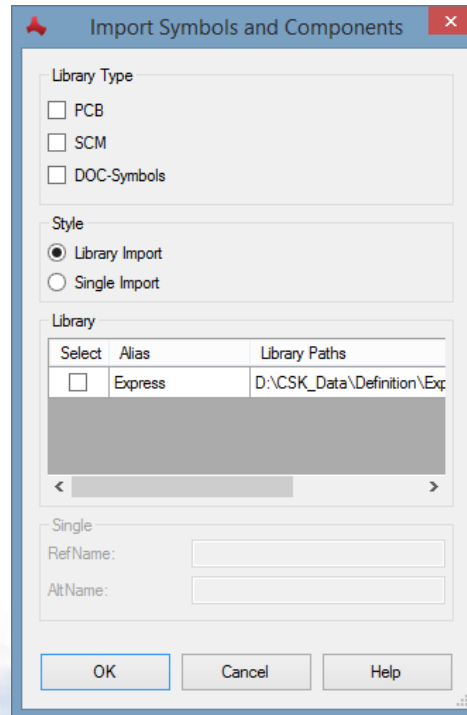
Query-Builder					
	Property	Comp.	Value	Bool	Order
	CADSTAR Partname	LIKE	*1N*	AND	ASC
	CADSTAR Description	LIKE	*Diode*	AND	NO...
	CADSTAR Alternate-Component	LIKE	*d*	AND	NO...
▶*	<Choose a filter-property>	LIKE		AND	NO...

2 0000,3120sec. Total rows: 17353 Searching [F5] Open Query

Key functions:



- Manage Symbol and Component Information
- Synchronize Symbol and Component Information



**Part Stock /
Synchronization**

Key functions:

- Manage Parts and Parts Information
- Synchronize parts with external systems
- Administrate columns (add, remove, rename, change type...)
- Create and Edit Parts
- Supports Status Properties for different handling
- Add user defined formulas for calculating
- Supports BOMs as a part

The screenshot displays the MRP-Link software interface. The main window shows a list of parts with columns for Partname, Description, Has_Alternatives, IsBomList, and Status. The selected part is COP87L20CJM, an 8-BIT MICROCONTROLLER. The interface includes a menu bar, a toolbar, and a detailed view of the selected part's properties.

Partname	Description	Has_Alternatives	IsBomList	Status
ZR2431G01	ADJUSTABLE P...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
MCM690618TG6	64K X 18 BIT SY...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
COP87L20CJM	8-BIT MICROCO...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
ZRC500F02	PRECISION 5.0 ...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
ZNBR6000020	FET BIAS CONT...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
ZR78L12G	2.85 TO 12 VOL...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
GE28F128W18T...	1.8 VOLT INTEL...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
744HC139D	DUAL 2-TO-4 U...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
TSDF1220	SILICON NPN P...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
CD40738D	CMOS AND GAT...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
AM29DL324D-70...	32 MEGABIT (4...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
B5565	PNP SILICON PL...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
FZT689B	NPN SILICON P...	<input type="checkbox"/>	<input type="checkbox"/>	Approved
BAV74	HIGH SPEED S...	<input type="checkbox"/>	<input type="checkbox"/>	Approved

Part Details:
Name: COP87L20CJM
Number: 1G21B5
Description: 8-BIT MICROCONTROLLER
Symbol: COP87L20P
Component: SOP-28
Library Alias: Express
Library Path: D:\CSK_Data\Definition\Express\Library\...
Library Version: 1
Library Name: Natsemi_Parts
Part Acceptance:

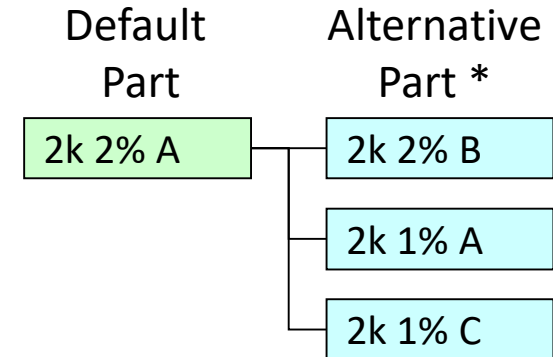
Query Builder:
18137 0000.0000sec. Total rows: 18137 Searching [F5] Open Query Save Query
Property Value Bool Order
** <Choose a filter-property> LIKE AND NO...

Current User: sa Database Info: (Server/Instance: P6500_2_W8\SQLXPRESS2014 [Database: CSK_MRP LINK_15_Express-16.0-2014-04-20-1])

Alternative Database

Key functions:

- Define any number of alternative parts /second sources
- Approve relations between alternative parts
- Optional Bi directional declarations
- Supports recursive alternative declarations
- Define preferred parts
- Using defined alternatives in BOM-Management, Parts stock and Library Searcher



Alternatives [Alternative Database]

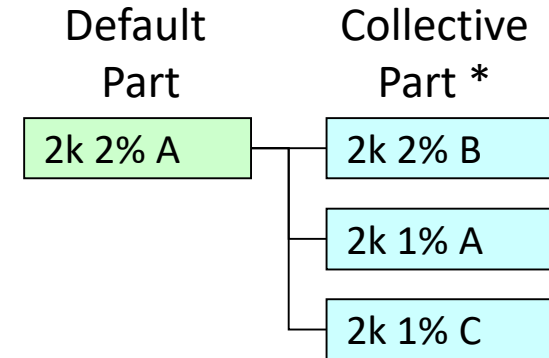
Partname	Status	Preferred_Part	Remark	Last_User	Last_Change	Quantity
HLMP-1585	Added by System	<input type="checkbox"/>		sa	24.01.2011 22:16	1
HLMP-1587	Checked	<input checked="" type="checkbox"/>		sa	24.01.2011 22:16	1

OK Cancel Help Refresh

* also known as secondary source

Key functions:

- Define any number of alternative parts /second sources
- Approve relations between alternative parts
- With Multi cluster Index

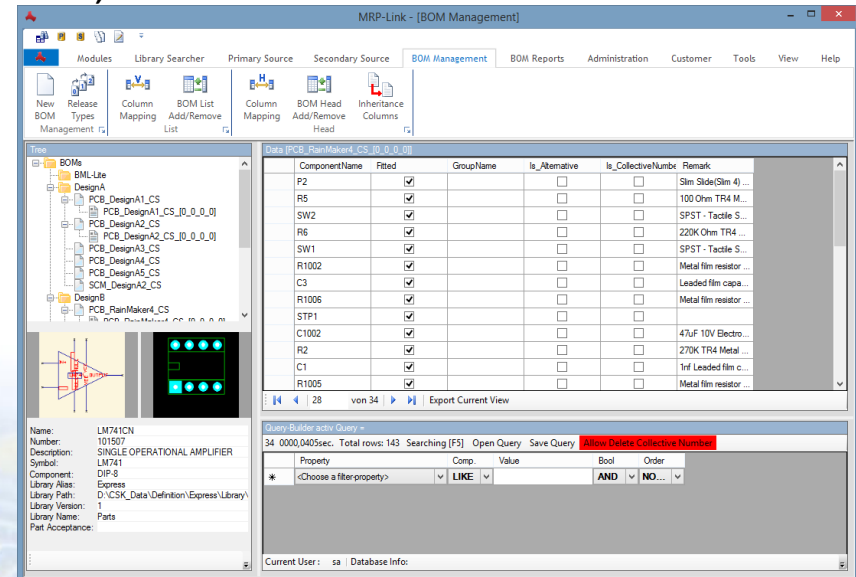


A	B	C	D	E	F	G	H
Partnumber	EMS-Name	EMS-Partnumber	Class	Value	Supplier	Supplier-MPN	Description
10000000			Capacitor	2.2nF	TDK	C1608X7R2A222K	2.2nF, TDK, C1608X7R2A222K
10000000	Bosch	8902211808	Capacitor	2.2nF	TDK	C1608X7R2A222K	
10000000	Hella	n/a	Capacitor	2.2nF	TDK	C1608X7R2A222K	
10000000	Flextronics	4816-00775	Capacitor	2.2nF	TDK	C1608X7R2A222K	
10000001			Resistor	10k	ROHM	MCR03..PFX1002	10k, ROHM, MCR03..PFX1002
10000001	Bosch	1267360318	Resistor	10k	SN	MCR03..PFX1002	10k, KOA EUROPE GMBH, RK73H
10000001	Hella	n/a	Resistor	10k	VIS	RVCS45242-shjh	
10000001	Flextronics	4816-00663	Resistor	10k	ROHM	MCR03..PFX1002	
10000002			Integrated Circuit		INF	TLE6251-2G	, INF, TLE6251-2G
10000002	Bosch	8905505876	Integrated Circuit		INF	TLE6251-2G	TLE6251-2G
10000002	Hella		Integrated Circuit				
10000002	Flextronics	4816-03577	Integrated Circuit		Infineon	TLE6251-2G/SP0004	CAN TRANSCEIVER TLE6251G SC
018863			Connector		SFS		
018863	Flextronics		Connector		SFS	?????	
2268310123			Connector		SFS	2268310123	
2268310123	Bosch	2268310123	Connector		SFS		

Key functions:



- Import BOMs incl. Variants,
- Normalize BOMs from different sources
- Hierarchical BOMs organized in tree structure
- BOM history and Version Control
- Manipulate BOMs (add parts, secondary sources, merge BOMs...)
- Supports detailed and accumulated lists
- Online calculating
- Lock BOMs






Key functions:

- Reporting expand and collapsed hierarchical BOMs
- Compare BOMs and different versions
- Supports user defined layouts
- Export as PDF, RTF (Word,...)
- CSV (Access, Excel,...), XML

CSK-Report



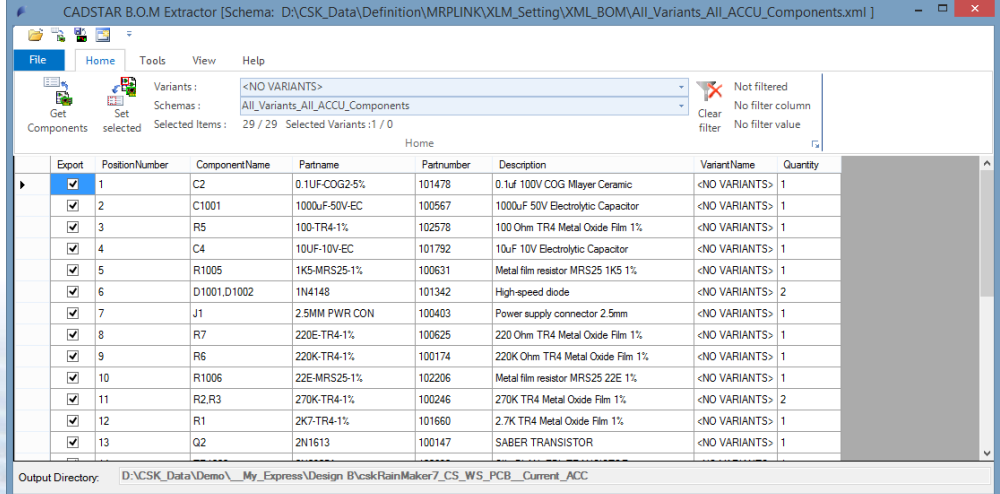
Partnumber: 0060834	Mayor: 1	Export Time: 06.05.2015 18:18:08
Validate_Start: 1900-01-01T12:00:00+01:00	Minor: 1	Created by: sa
Validate_End: 1900-01-01T12:00:00+01:00	Build: 1	
Status: No status	Revision: 1	
Parts: 112		
Price: 12.40		

Partnumber	Cnt	Components	Description	Price	Sum
1000001	1	C12	Kondensator	3	3
1000011	10	D11 , D12 , D15 , D41 , D5 , D54 , D6 , D7 , D8 , D9	Diode	0	0
1000015	19	D10 , D13 , D14 , D17 , D23 , D27 , D29 , D30Diode , D31 , D32 , D34 , D35 , D36 , D37 , D38 , D52 , D53 , D55 , D56		0	0
1000017	1	SIHA	Sicherungshalter	0	0
1000033	4	D1 , D2 , D3 , D4	Diode	0	0
1000036	1	GL1	Gleichrichter	0	0
1000039	9	K1 , K2 , K3 , K4 , K5 , K6 , K7 , K8 , K9	Relais	0	0
1000040	2	X13 , X14	Flachstecker	4	8
1000042	2	X8 , X9	Buchse	0	0
1000045	1	KK2	Kühlwinkel, Alu	0	0
1000046	6	R36 , R37 , R6 , R7 , R8 , R9	Widerstand	0	0
1000047	2	R32 , R33	Widerstand	0,7	1,4
1000066	2	X10 , X12	Klemmleiste	0	0
1000081	8	R18 , R19 , R23 , R24 , R25 , R28 , R29 , R30	Widerstand	0	0
1000082	1	X11	Steckverbinder	0	0
1000084	2	T3 , T4	Transistor	0	0
1000095	1	D33	Diode	0	0
1000103	1	KK4	Kühlkörper	0	0
1000198	1	R16	Widerstand	0	0
1000204	1	R20	Widerstand	0	0



Key functions:

- Get easy all parts from current design or all sheets/ variants
- Detailed or accumulated lists
- Export data in CSV & XML
- Many different options to reduce export parts
- User defined automatically positions number
- Communication with CADSTAR Parts (cross probing,...)
- Use schemas



CADSTAR B.O.M Extractor [Schema: D:\CSK_Data\Definition\MRPLINK\XML_Setting\XML_BOM\All_Variants_All_ACCU_Components.xml]

File Home Tools View Help

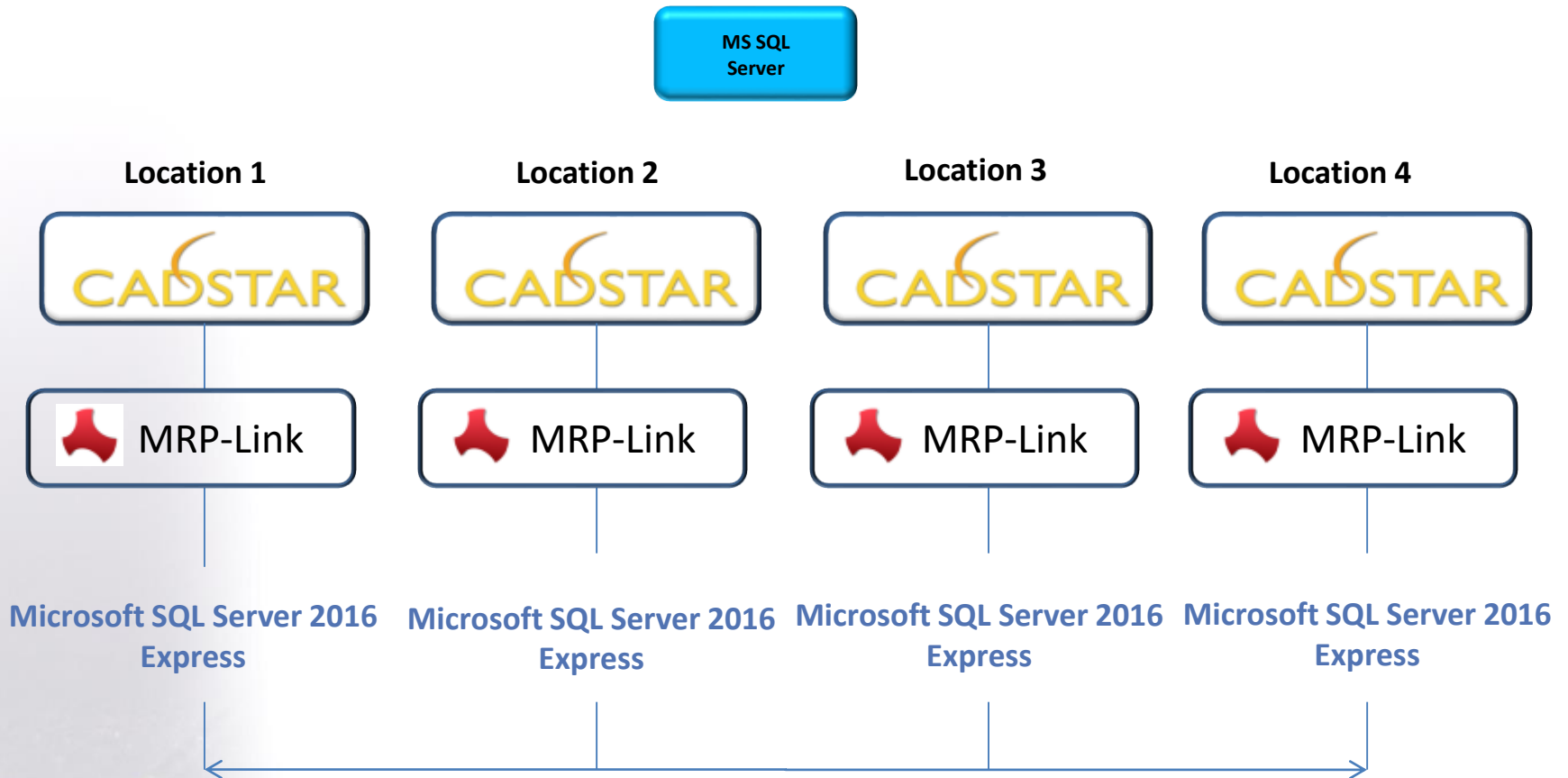
Components Get Set selected Variants: <NO VARIANTS> Schemas: All_Variants_All_ACCU_Components Selected Items: 29 / 29 Selected Variants: 1 / 0

Clear filter No filter column No filter value

Export	PositionNumber	ComponentName	Partname	Patnumber	Description	VariantName	Quantity
<input checked="" type="checkbox"/>	1	C2	0.1UF-COG2-5%	101478	0.1uF 100V COG Mlayer Ceramic	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	2	C1001	1000uF-50V-EC	100567	1000uF 50V Electrolytic Capacitor	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	3	R5	100-TR4-1%	102578	100 Ohm TR4 Metal Oxide Film 1%	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	4	C4	10UF-10V-EC	101792	10uF 10V Electrolytic Capacitor	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	5	R1005	1K5-MRS25-1%	100631	Metal film resistor MRS25 1K5 1%	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	6	D1001.D1002	1N4148	101342	High-speed diode	<NO VARIANTS>	2
<input checked="" type="checkbox"/>	7	J1	2.5MM PWR CON	100403	Power supply connector 2.5mm	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	8	R7	220E-TR4-1%	100625	220 Ohm TR4 Metal Oxide Film 1%	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	9	R6	220K-TR4-1%	100174	220K Ohm TR4 Metal Oxide Film 1%	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	10	R1006	22E-MRS25-1%	102206	Metal film resistor MRS25 22E 1%	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	11	R2.R3	270K-TR4-1%	100246	270K TR4 Metal Oxide Film 1%	<NO VARIANTS>	2
<input checked="" type="checkbox"/>	12	R1	2K7-TR4-1%	101660	2.7K TR4 Metal Oxide Film 1%	<NO VARIANTS>	1
<input checked="" type="checkbox"/>	13	Q2	2N1613	100147	SABER TRANSISTOR	<NO VARIANTS>	1

Output Directory: D:\CSK_Data\Demo_My_Express\Design B\cskRainMaker7_CS_WS_PCB_Current_ACC

MRP-Link Database Replication



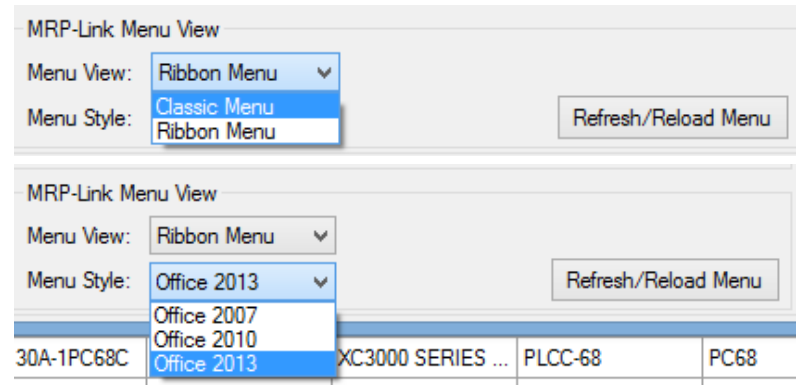
- Each site is able to work independently from the other sites.
- If an internet connection becomes available, it is possible that asynchronous data will be synchronized between the sites.
- The technology of merge replication is used.

based on



SQL-Server is not part of MRP-Link

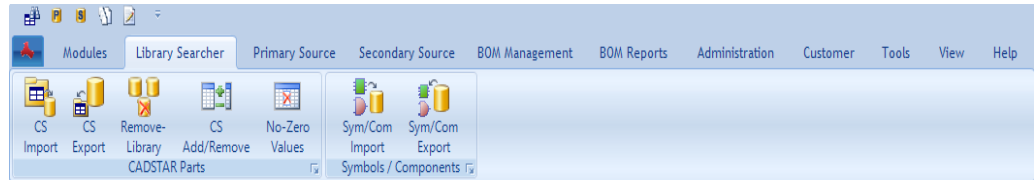
Online change between
Classic Menu View
&
Ribbon Menu View
with different office styles.



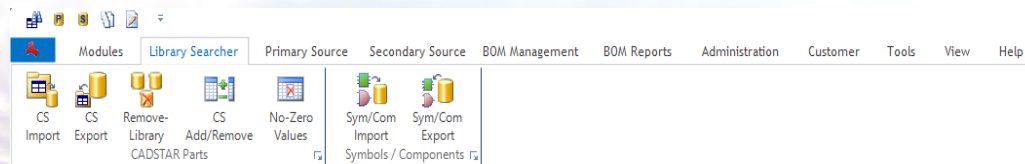
Office 2007



Office 2010

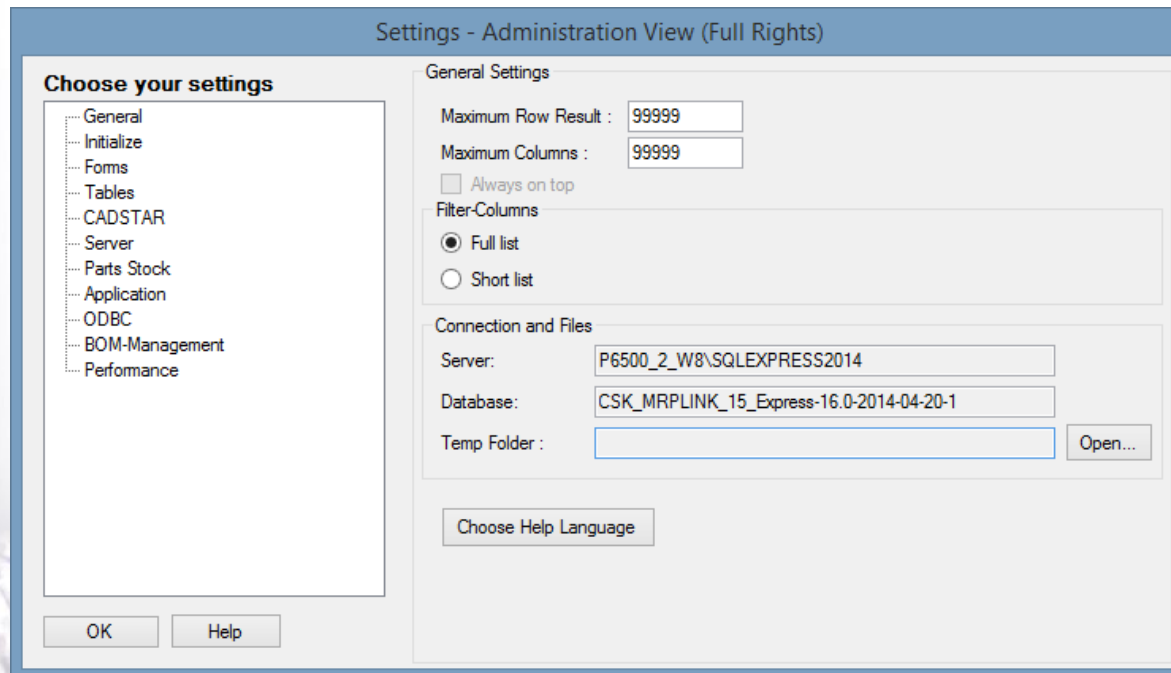


Office 2013

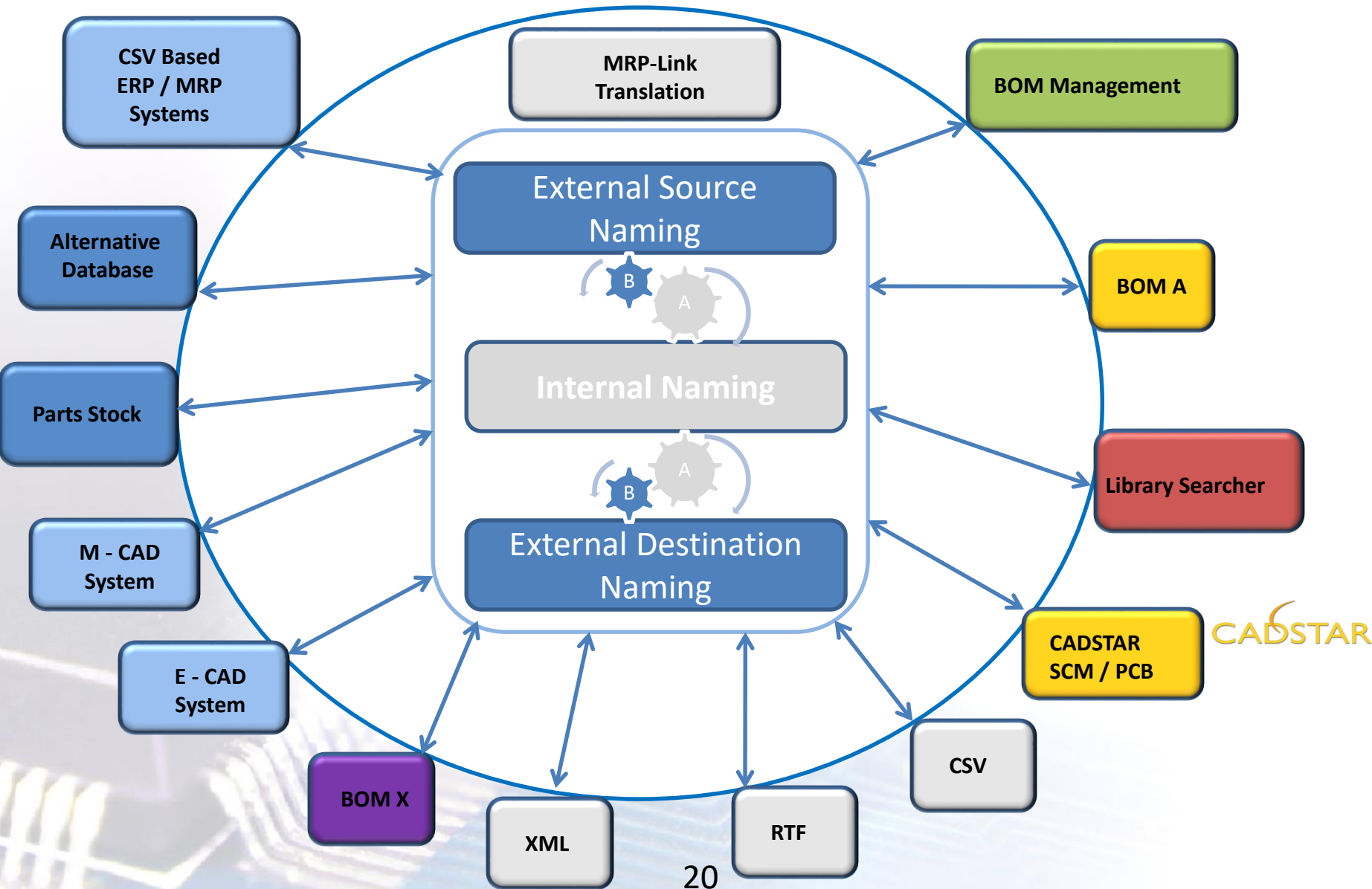


Key functions:

- MRP-Link Setups
- MRP-Link Batch Processing Setups
- MRP-Link Style/View

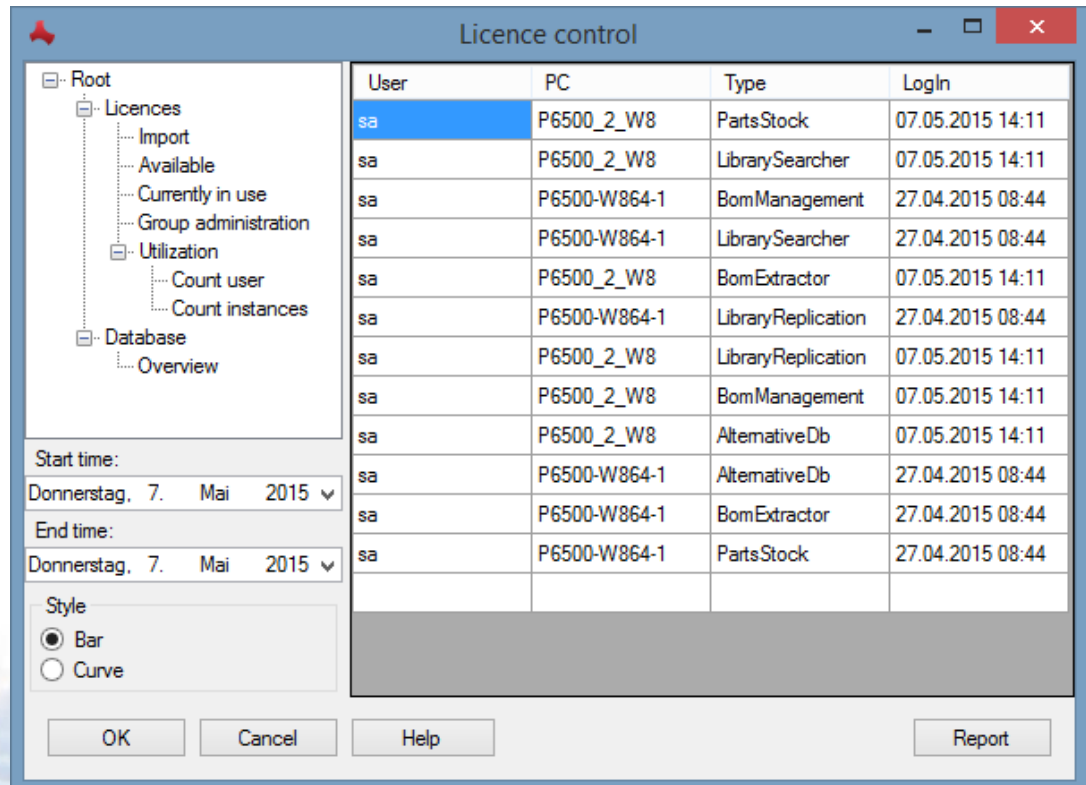
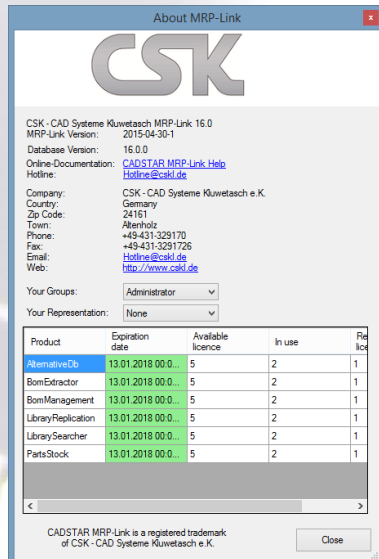


Functions in detail: Column Name Mapping / Translation



Key functions:

- Im/Export license file
- User/Group Administration
- Database Info View
- License/User Info View



Licence control

- Root
 - Licences
 - Import
 - Available
 - Currently in use
 - Group administration
 - Utilization
 - Count user
 - Count instances
 - Database
 - Overview

Start time: Donnerstag, 7. Mai 2015

End time: Donnerstag, 7. Mai 2015

Style: Bar Curve

OK Cancel Help Report

User	PC	Type	LogIn
sa	P6500_2_W8	PartsStock	07.05.2015 14:11
sa	P6500_2_W8	LibrarySearcher	07.05.2015 14:11
sa	P6500-W864-1	BomManagement	27.04.2015 08:44
sa	P6500-W864-1	LibrarySearcher	27.04.2015 08:44
sa	P6500_2_W8	BomExtractor	07.05.2015 14:11
sa	P6500-W864-1	LibraryReplication	27.04.2015 08:44
sa	P6500_2_W8	LibraryReplication	07.05.2015 14:11
sa	P6500_2_W8	BomManagement	07.05.2015 14:11
sa	P6500_2_W8	AlternativeDb	07.05.2015 14:11
sa	P6500-W864-1	AlternativeDb	27.04.2015 08:44
sa	P6500-W864-1	BomExtractor	27.04.2015 08:44
sa	P6500-W864-1	PartsStock	27.04.2015 08:44

Key functions:

- Define and administrate users
- Define groups and assign access rights
- Assign user to groups
- Add representatives to user
- No group → no access rights
- Hide forbidden areas (only what's important)

SQL

The screenshot shows the 'Connect to Server' dialog box with the following settings:

- Database System: MS SQL Server 2014
- Server Name: P6500_2_W8\SQLEXPRESS2014
- Login Name: sa
- Password: [masked]
- Windows Authentication: (disabled)
- Server Log-on:
- Database: CSK_MRPLINK_15_CADSTAR_Express_16
- Remember Me:
- Send Logon to CADSTAR:
- Buttons: Connect, Cancel, Help, Options >>

or

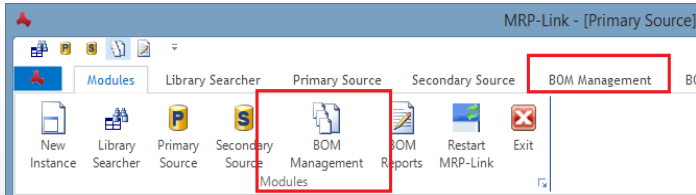
(see Windows Authentication

The screenshot shows the 'Connect to Server' dialog box with the following settings:

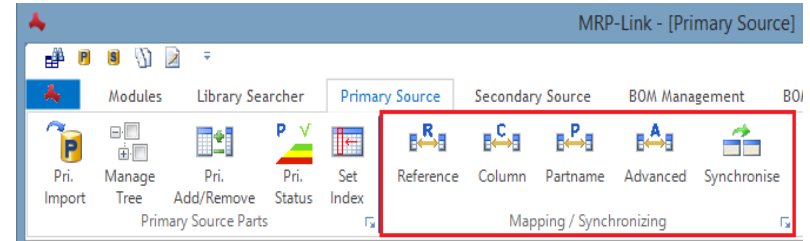
- Database System: MS SQL Server 2014
- Server Name: P6500_2_W8\SQLEXPRESS2014
- Login Name: [empty]
- Password: [empty]
- Windows Authentication:
- Server Log-on:
- Database: CSK_MRPLINK_15_CADSTAR_Express_16
- Remember Me:
- Send Logon to CADSTAR:
- Buttons: Connect, Cancel, Help, Options >>

All access rights = all view

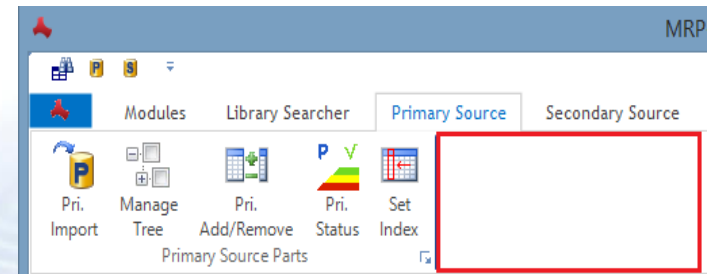
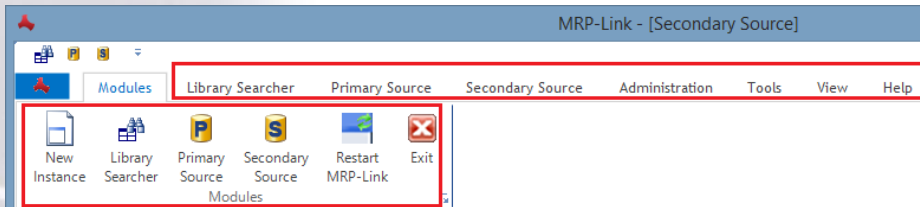
BOM Management Module



Parts Stock / Primary Source Synchronize Function

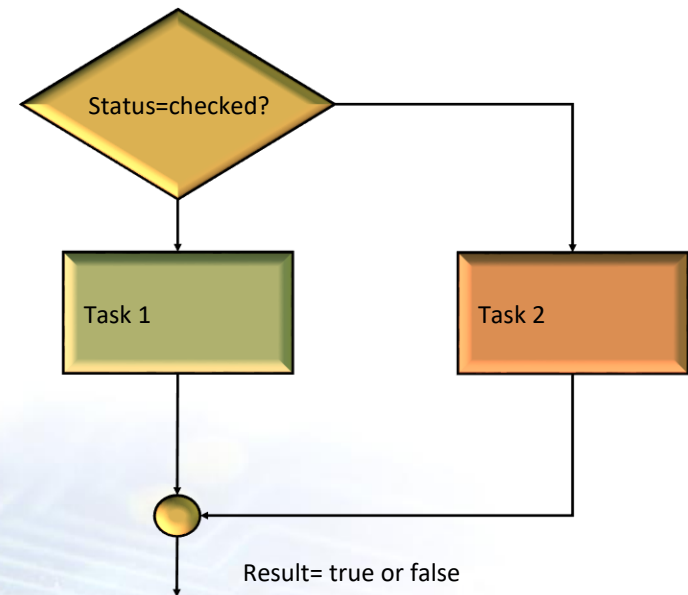
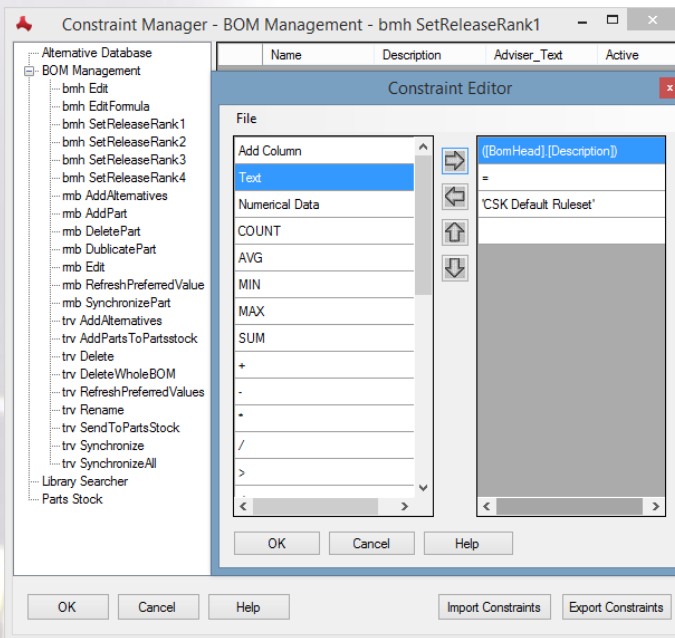


Limited access rights = limited view



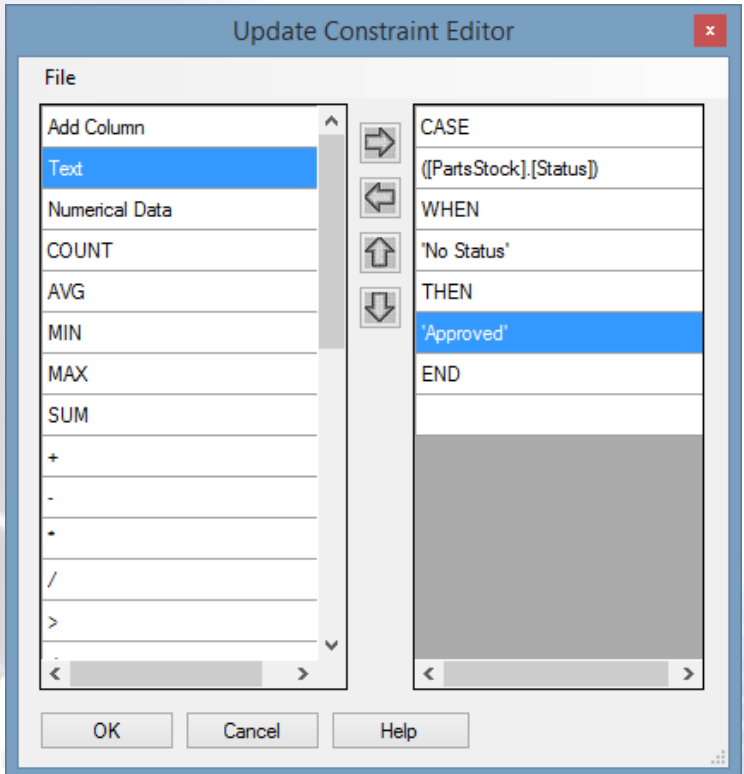
Key functions:

- Assign company workflows into MRP-Link
- Define individual rules based on companies requirements
- Add rules to user actions
- Easy adapting of rules when workflows have to be altered



Key functions:

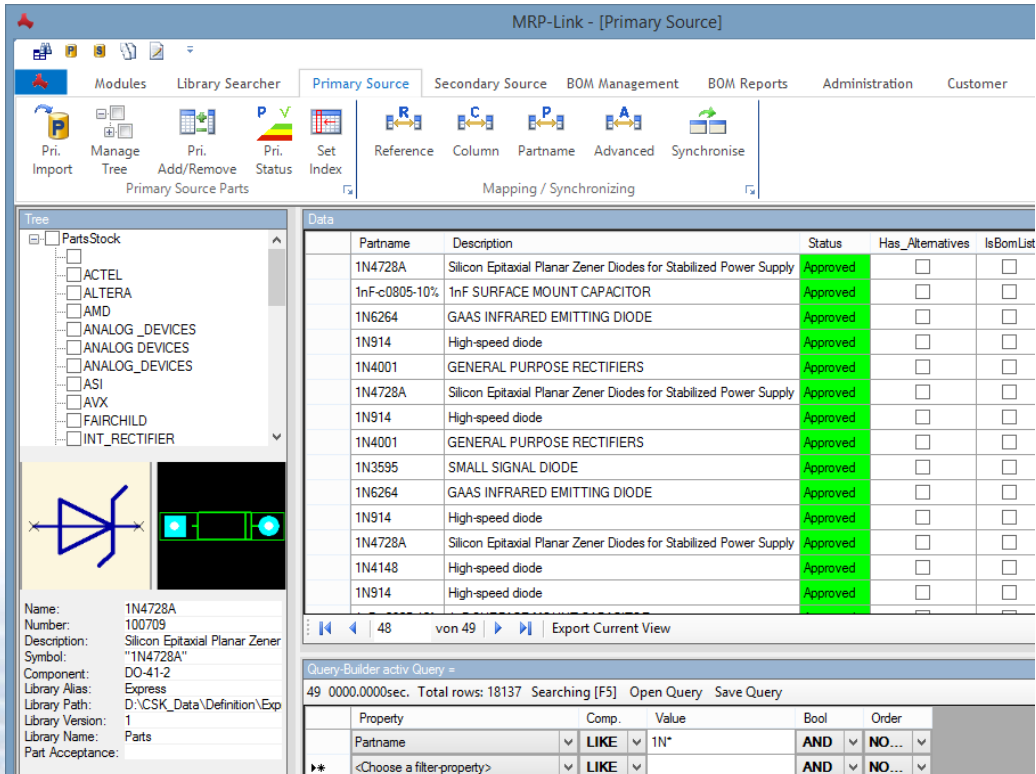
- Assign company workflows into MRP-Link
- Define individual rules based on companies requirements
- Update rule based columns with calculated values



Update Constraint Editor

File

- Add Column
- Text**
- Numerical Data
- COUNT
- AVG
- MIN
- MAX
- SUM
- +
-
- *
- /
- >



MRP-Link - [Primary Source]

Modules: Library Searcher, Primary Source, Secondary Source, BOM Management, BOM Reports, Administration, Customer

Primary Source Parts: Pri. Import, Manage Tree, Add/Remove, Pri. Status, Set Index

Mapping / Synchronizing: Reference, Column, Partname, Advanced, Synchronise

Tree

- PartsStock
 - ACTEL
 - ALTERA
 - AMD
 - ANALOG_DEVICES
 - ANALOG DEVICES
 - ANALOG_DEVICES
 - ASI
 - AVX
 - FAIRCHILD
 - INT_RECTIFIER

Data

Partname	Description	Status	Has_Alternatives	IsBomList
1N4728A	Silicon Epitaxial Planar Zener Diodes for Stabilized Power Supply	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1nF-c0805-10%	1nF SURFACE MOUNT CAPACITOR	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N6264	GAAS INFRARED EMITTING DIODE	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N914	High-speed diode	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N4001	GENERAL PURPOSE RECTIFIERS	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N4728A	Silicon Epitaxial Planar Zener Diodes for Stabilized Power Supply	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N914	High-speed diode	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N4001	GENERAL PURPOSE RECTIFIERS	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N3595	SMALL SIGNAL DIODE	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N6264	GAAS INFRARED EMITTING DIODE	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N914	High-speed diode	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N4728A	Silicon Epitaxial Planar Zener Diodes for Stabilized Power Supply	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N4148	High-speed diode	Approved	<input type="checkbox"/>	<input type="checkbox"/>
1N914	High-speed diode	Approved	<input type="checkbox"/>	<input type="checkbox"/>

49 0000.0000sec. Total rows: 18137 Searching [F5] Open Query Save Query

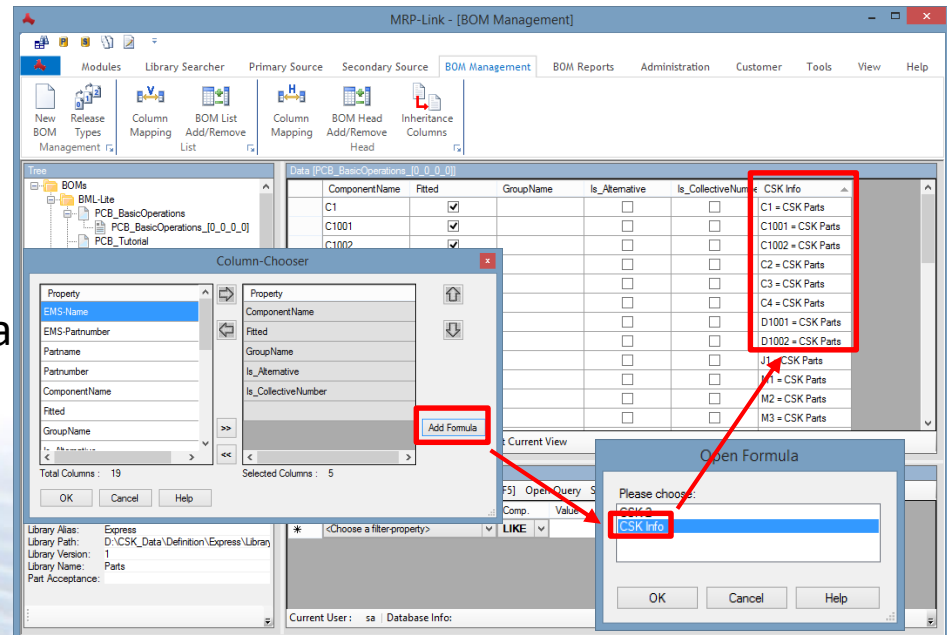
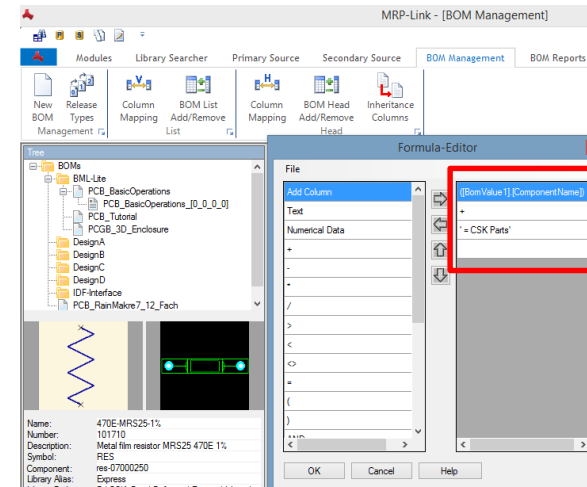
Query-Builders active Query =

Property	Comp.	Value	Bool	Order
Partname	LIKE	1N*	AND	NO...
<Choose a filter-property>	LIKE		AND	NO...

Work with virtual columns in your spread view to:

- Calculate
- Merge column values
- Create virtual values
- Add to BOMs, Parts Stock and BOM-Heads
- Realized with SQL aggregate function

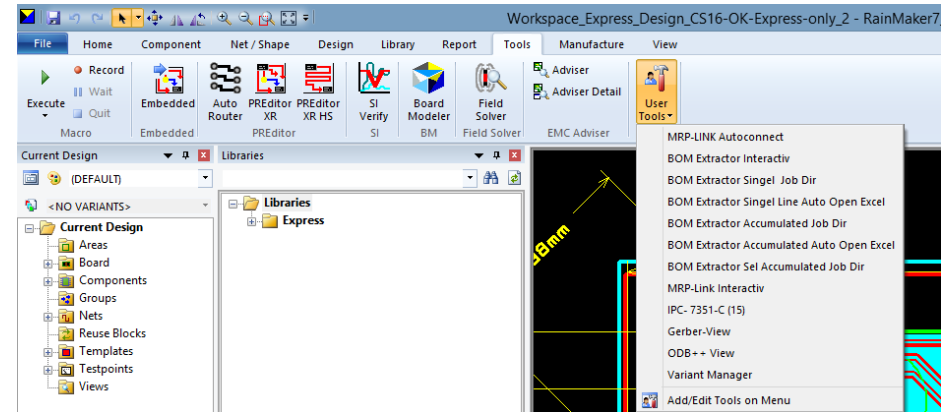
Add a formula base column like a real physical column into your personal view.



Key functions:

- MRP-Link start from CADSTAR
- MRP-Link start from Batch file
- MRP-Link start from other program

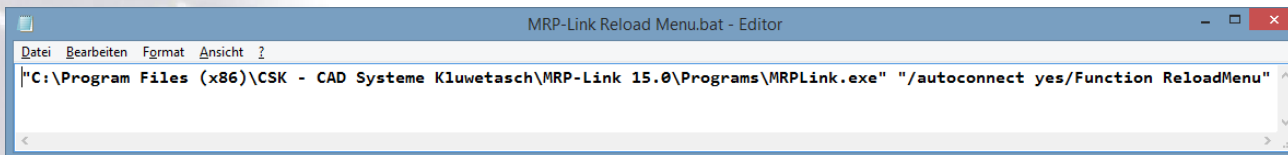
The customized menu bottoms are placed inside the CADSTAR menu.



With a single simple mouse click the user is able to carry out a series of functions with different user defined results.

Like an auto create & open of any BOM direct online from CADSTAR into Excel.

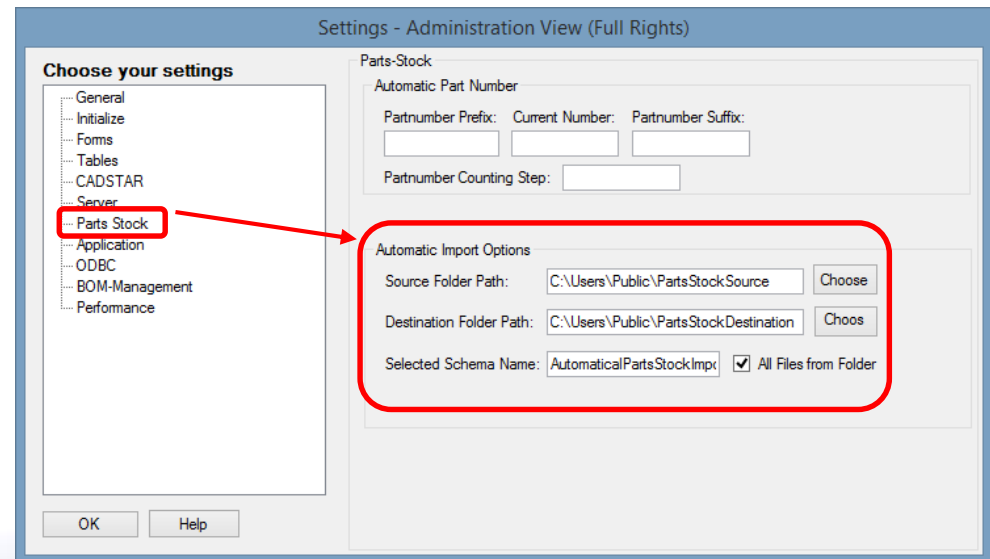
Start text editor and type your MRP-Link path with arguments.



Save this text file as Batch file & start MRP-Link over and over again with this Batch file.

With the MRP-Link we offers you the opportunity to carry out a lot of batch processing:

- Auto start other applications
 - Like CADSTAR, BOM Extractor, Excel
 - And other...
- Auto Import via Windows scheduler PLM/ERP Attribute Values in to the CADSTAR Parts Stock
- Auto create new Part numbers
- Reload Menu
- Reset locks
- Auto Run BOM Extractor
- Auto Connect to a database and a much more functions



MRP-Link Auto Start Info:

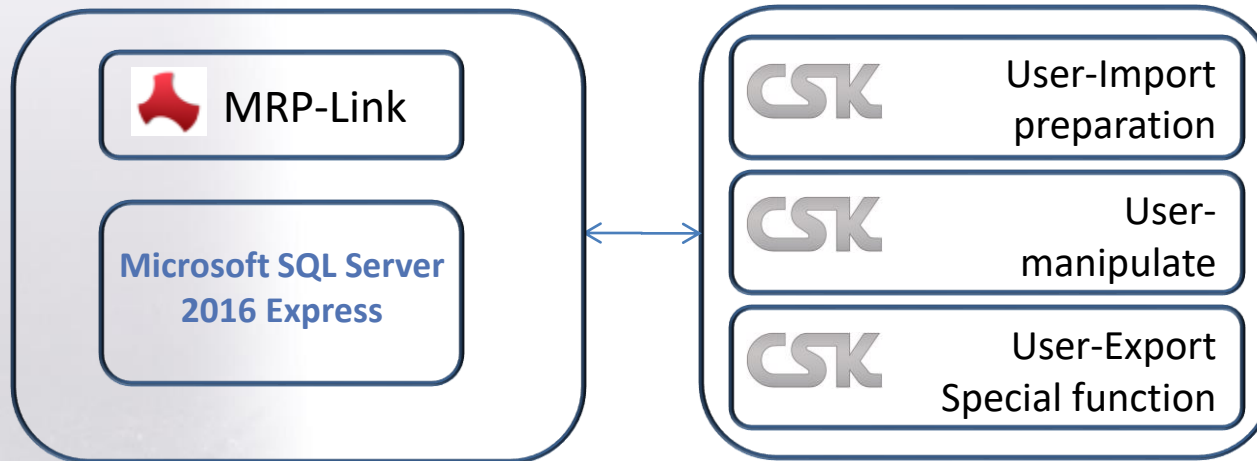
/DatabaseSystem MS SQL Server 2014/ServerInstanz P6500-2\SQLEXPRESS2014/LoginName sa/Passwort Sql2014/DatabaseName
CSK_MRPLINK_16_CADSTAR_Express_16

/AutoConnect Yes

MRP-Link offers you the opportunity to carry out fully automated internal processes.

With a new interface, which is disclosed to you.

You get the option from MRP-Link to integrate your own developed programs and run them as automated processes.



Is to be programmed with Visual Studio

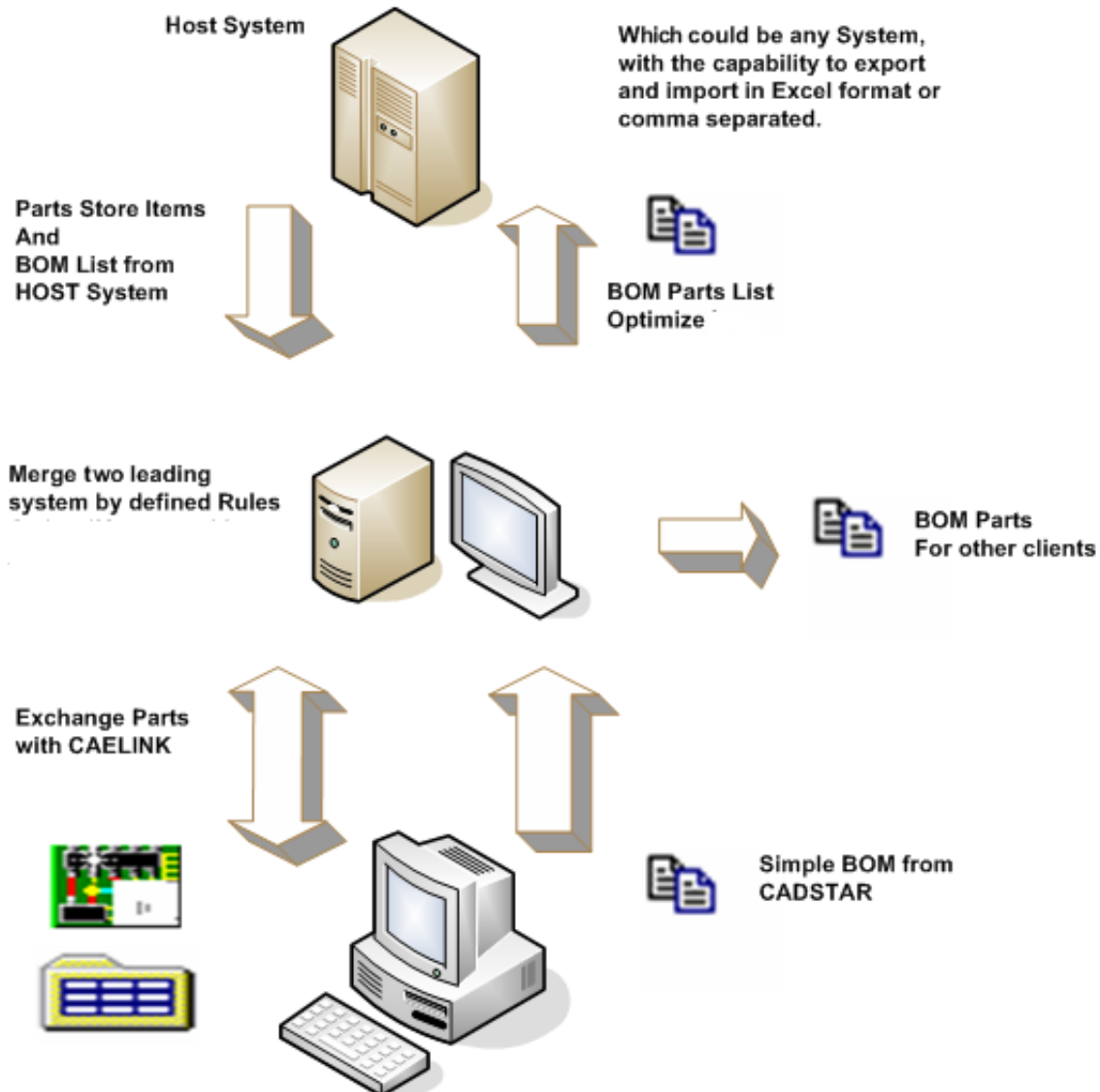
We will program individual routines as service, too.
The customer will get the source code of customer Class.

based on

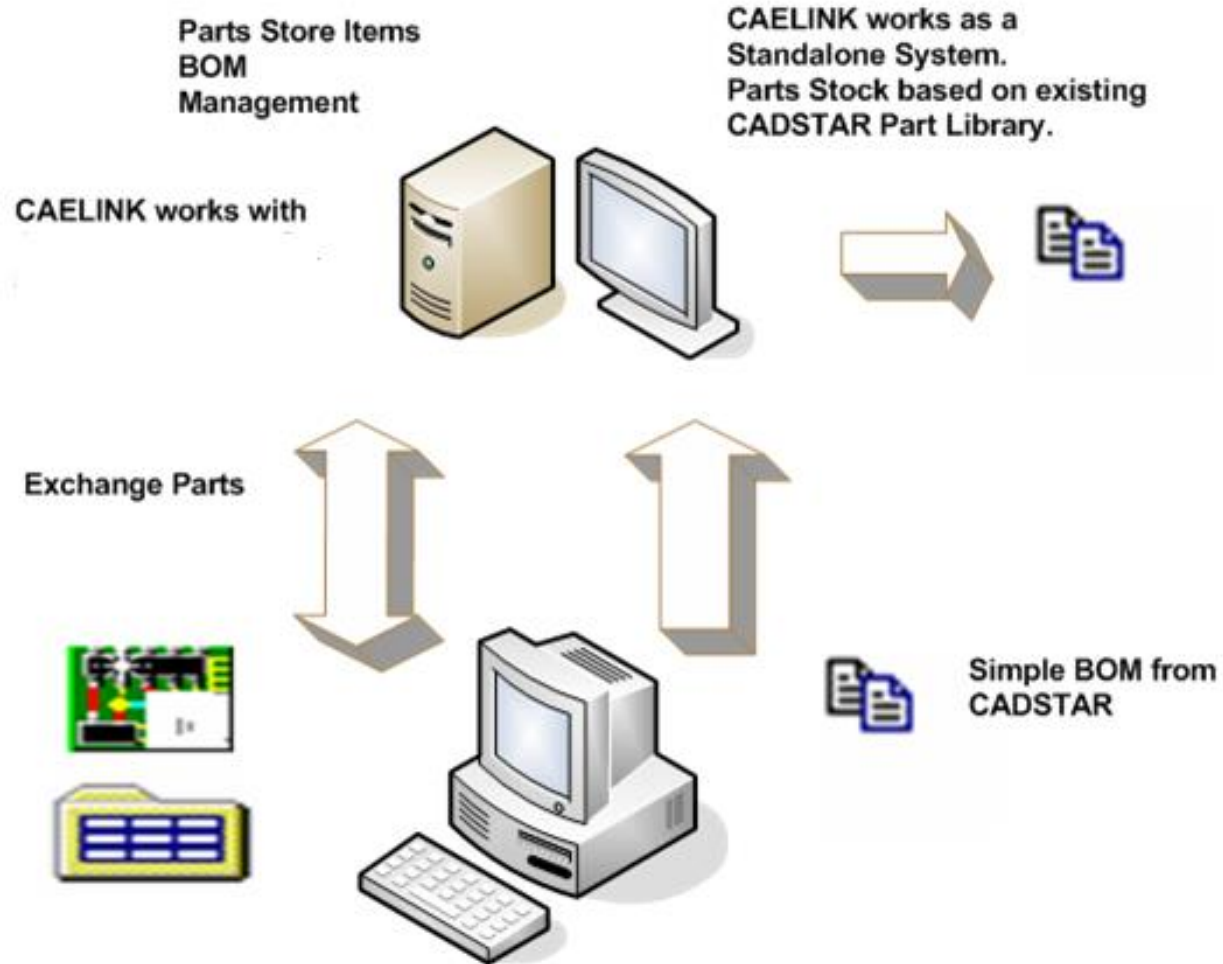


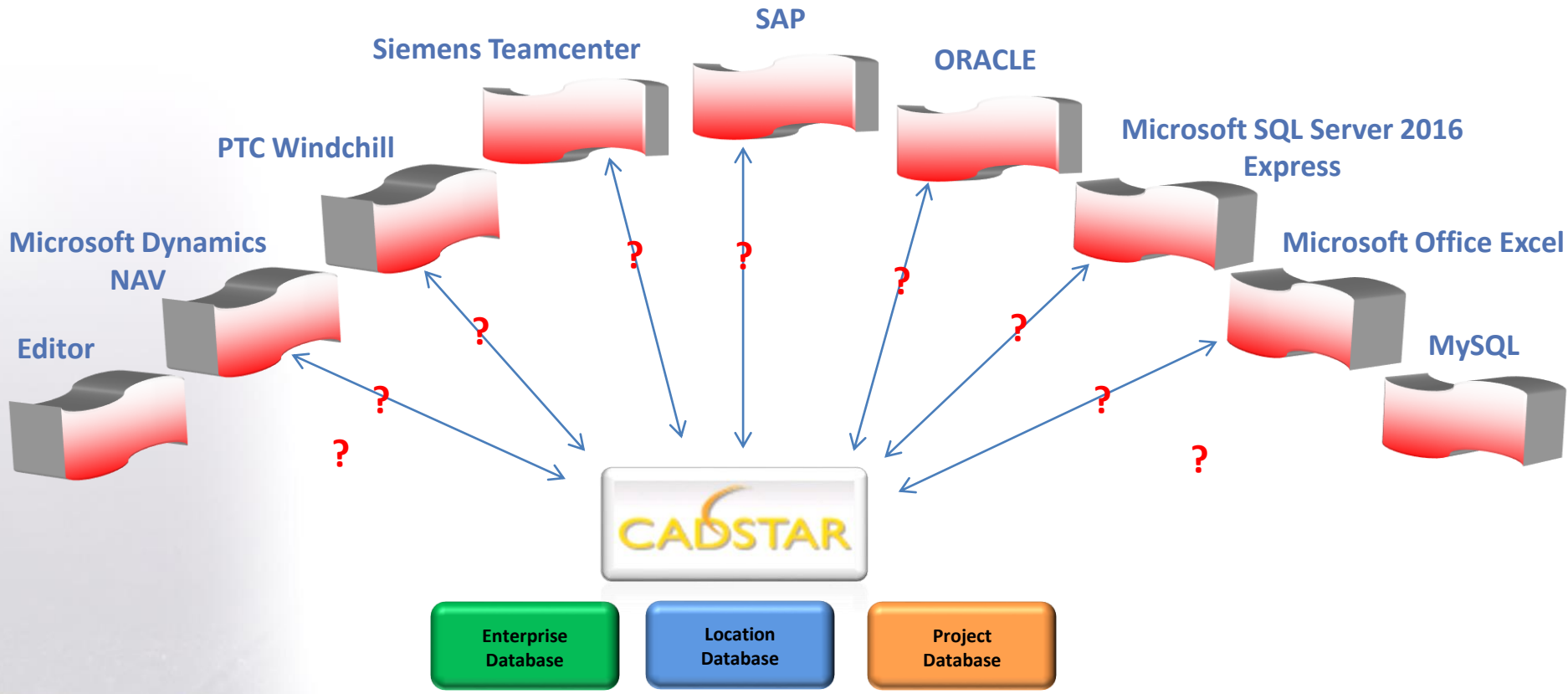
SQL-Server is not part of MRP-Link

Design Flow Overview with Host



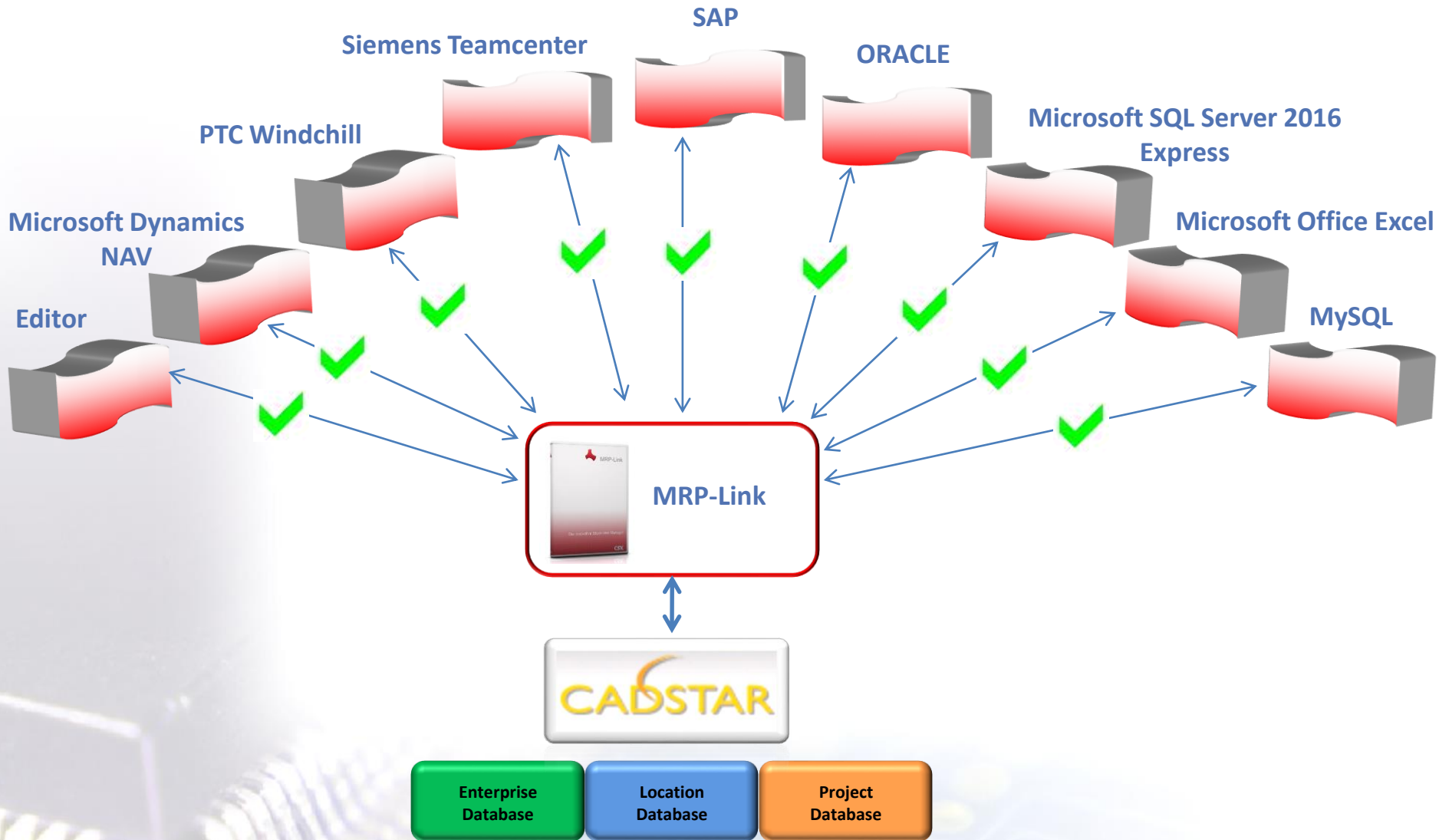
Design Flow Overview without Host





For each external System a complex software interface is necessary which follow the data schema from CADSTAR.
In the real world are the CAD relevant information distributed in different software programs and storages.

MRP-Link will ensure this connectivity



- Reduction in preparing BOM data (creating Parts list with correct & complete info)
- Provides a quick & powerful way to search and select components from the parts database that meet the specified criteria
- Component Change Notifications can be checked against a list of obsolete components
- Project managers can find out easily in which projects the obsolete component have been used and what impact (read costs) replacing it by an alternative component are involved
- Correct Library, providing access to all component information without data redundancy, multiple CADSTAR libraries, or time-consuming tool overhead

- Reduced Stock Out, when preferred supplier information is available from the host
- Lower Component Acquisition Cost
- Reduction in the man-day time to check data
- Generate several variations of a Parts list
- Manage and Assess change notes throughout product development
- Easily integrate with corporate component and MRP databases
- Reduces cost and shortens time to market!

MRP-Link - Overview of Available Module Prices

Module	Module basic costs	Module + 1 License	Module + 5 Licenses	Module + 10 Licenses
Library Replication	5.000	5.700	7.800	9.200
BOM Management	5.000	5.700	7.800	9.200
Alternative Database	2.500	3.200	5.300	6.700
Part Stock / Synchronization	2.500	3.200	5.300	6.700
Library Searcher	0	700	2.800	4.200
MS SQL Server	0	0	0	0
BOM Extractor	0	500	2.000	3.000

The system uses user orientated floating licenses based on the MAC Address.

In addition the BOM Extractor is available as Node lock authorized on the MAC Address.

There are additionally single user licenses available for 700 except for the BOM Extractor, where each costs 500.

All prices in € without taxes.

Annual maintenance cost is 15 % of list price.

CSK MRP-Link
Official German Distributor

Für Rückfragen und weitere Informationen
steht Ihnen das CSK Team gerne zur Verfügung.

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MRP-Link

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