

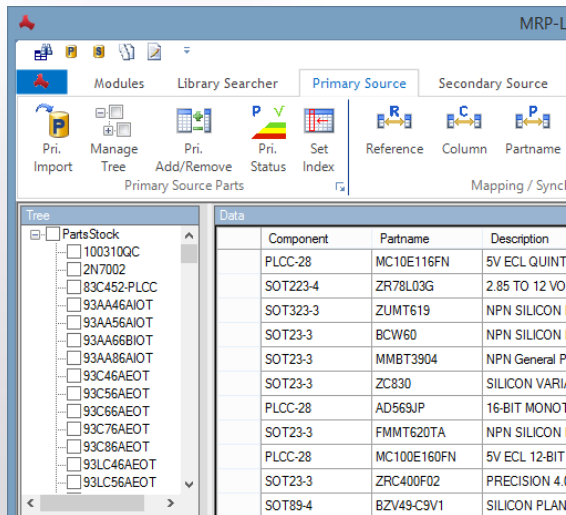
# CSK - CAD Systeme Kluwetasch

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# MRP-Link Design flow

Parts Stock



The screenshot shows the MRP-Link software interface. On the left, a tree view displays a 'Parts Stock' list with various components. On the right, a table lists components with their part names and descriptions.

Component	Partname	Description
PLCC-28	MC10E116FN	5V ECL QUINT
SOT223-4	ZR78L03G	2.85 TO 12 VO
SOT323-3	ZUMT619	NPN SILICON
SOT23-3	BCW60	NPN SILICON
SOT23-3	MMBT3904	NPN General P
SOT23-3	ZC830	SILICON VARI
PLCC-28	AD569JP	16-BIT MONOT
SOT23-3	FMMT620TA	NPN SILICON
PLCC-28	MC100E160FN	5V ECL 12-BIT
SOT23-3	ZRC400F02	PRECISION 4.1
SOT89-4	BZV49-C9V1	SILICON PLAN

BOM Management



CADSTAR

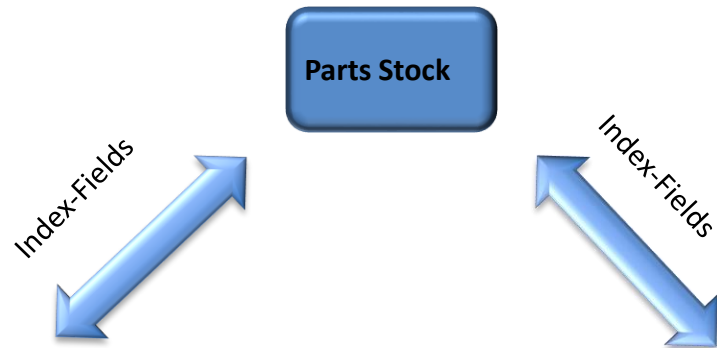
BOM A

BOM B

BOM C

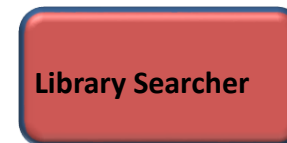
Or other  
CSV Files

# MRP-Link Index References



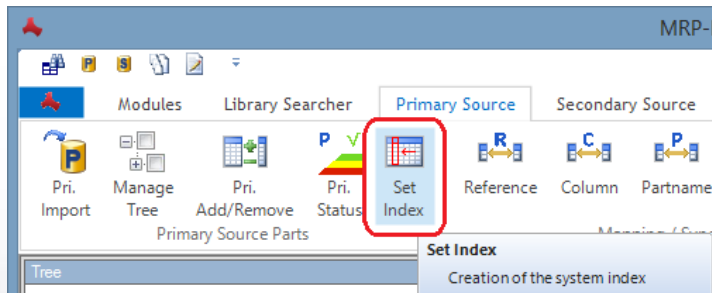
The Index-Fields are individual selectable.

Optional in a single CADSTAR environment is always the CADSTAR Part Name the unique Identifier.

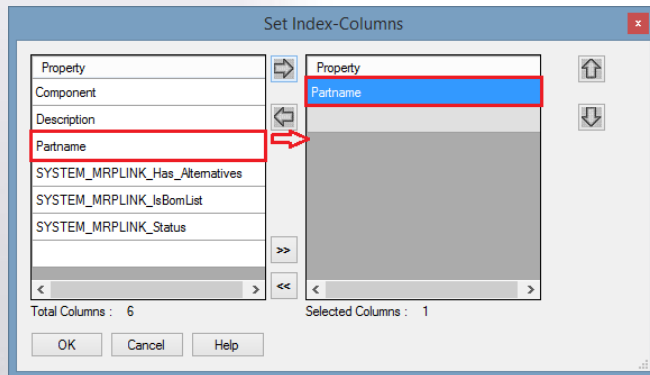


CSV BOM Files

# Index Mapping from Parts Stock to BOM



Required Reference **Index** Mapping from Parts Stock to BOM Management



Select the unique reference for the whole system

Parts Stock

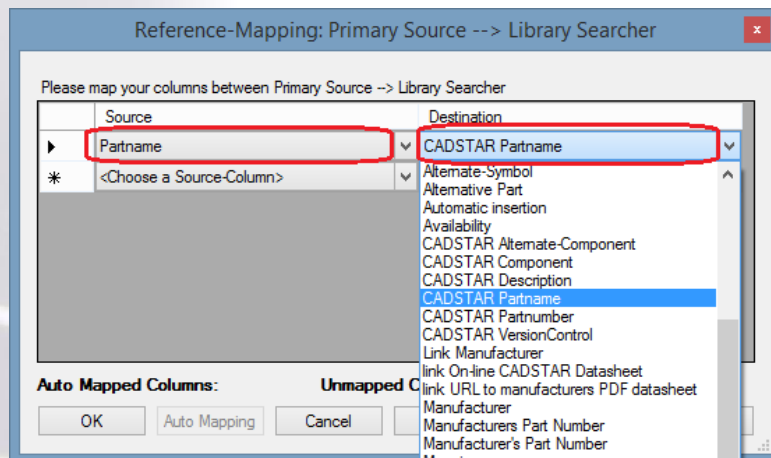
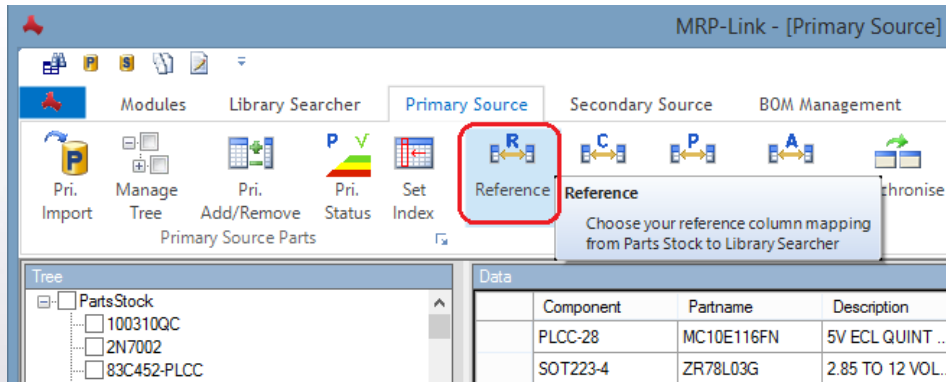


BOM Management

Attention: If there is a Cluster Index, select the most important index column as first item!!!

# Index Mapping - Parts Stock to Library Searcher

Required Reference **Index** Mapping from Parts Stock to CADSTAR Library Searcher



Parts Stock



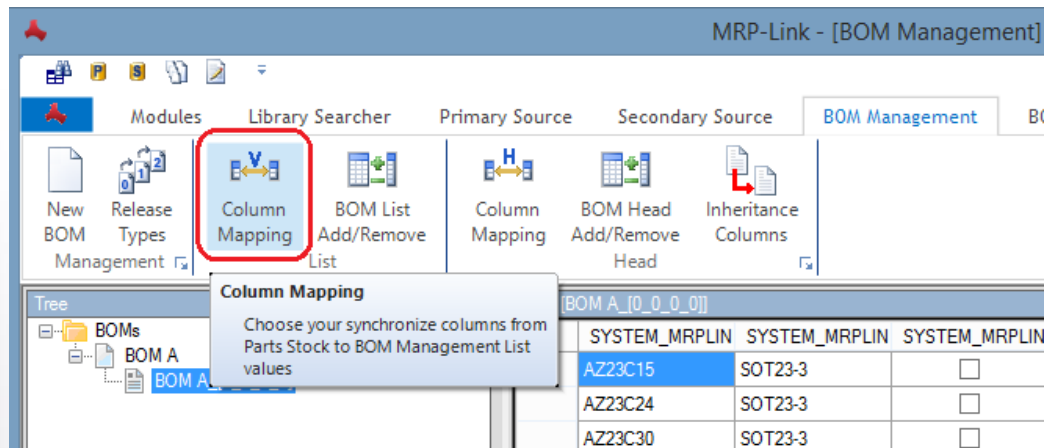
CADSTAR

CADSTAR

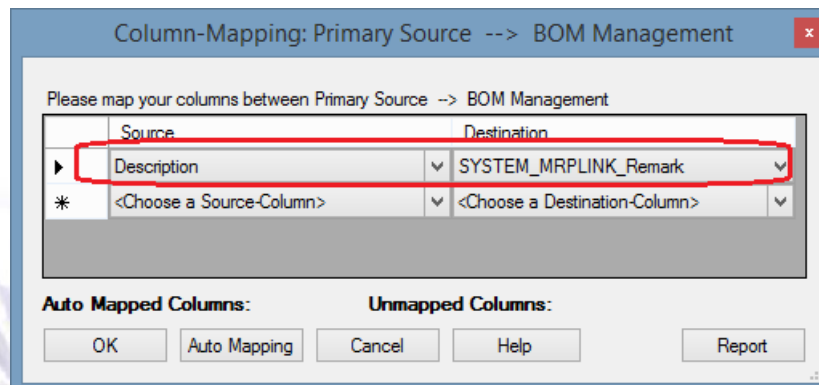


# Column Mapping - Parts Stock to BOM Management

Required **Column** Mapping from Parts Stock to BOM Management

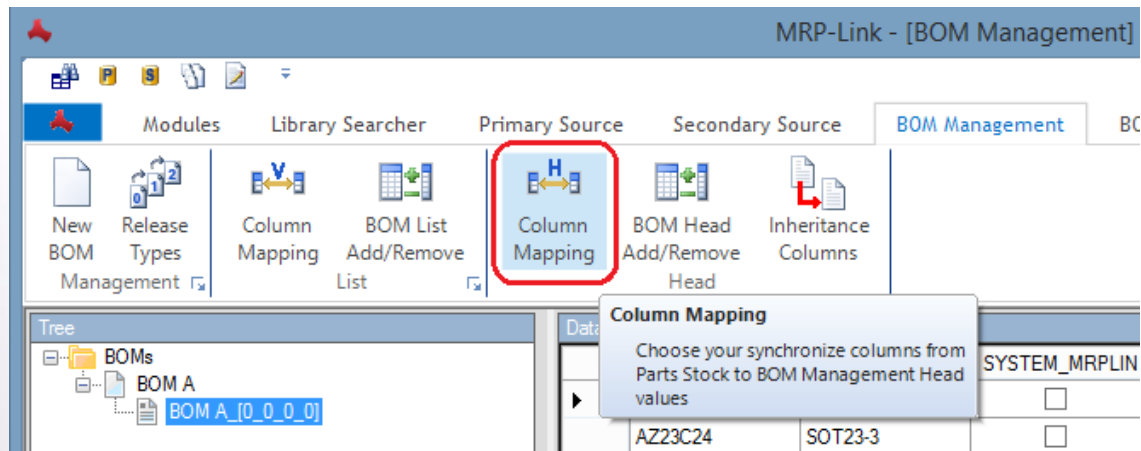


Required Colum Management

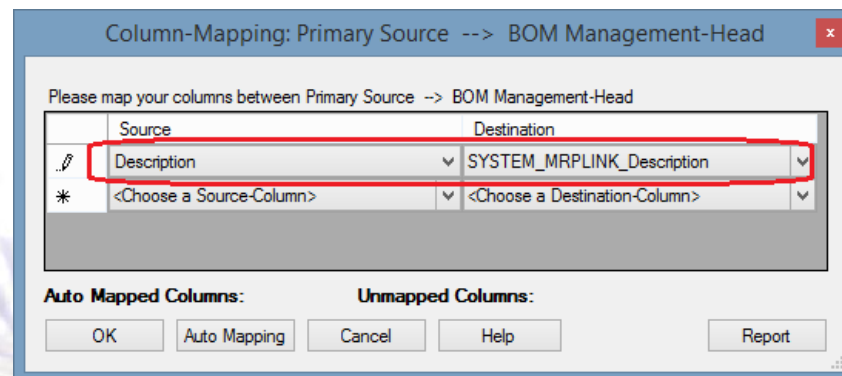


# Column Mapping - Parts Stock to BOM Management

Required **Column** Mapping from Parts Stock to BOM Management

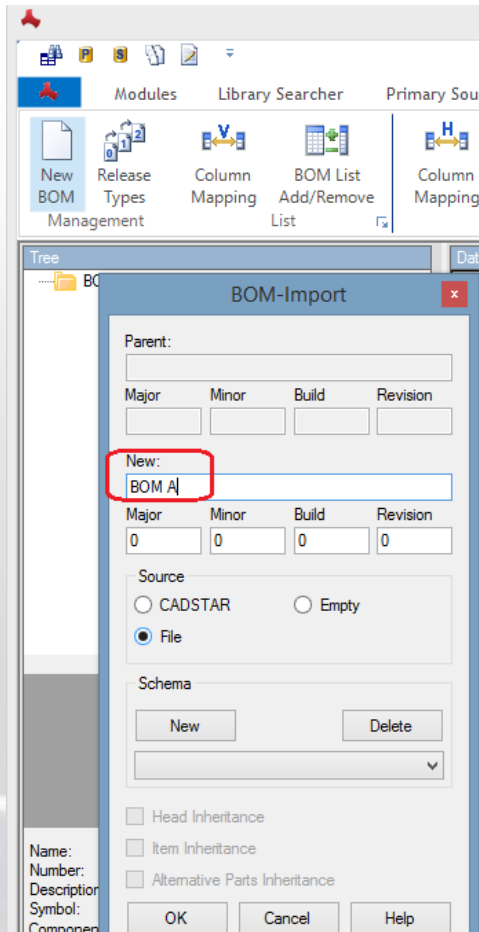


Required Column Management



# Create BOM from File

Select BOM, press right hand bottom, select NEW BOM and type BOM Name

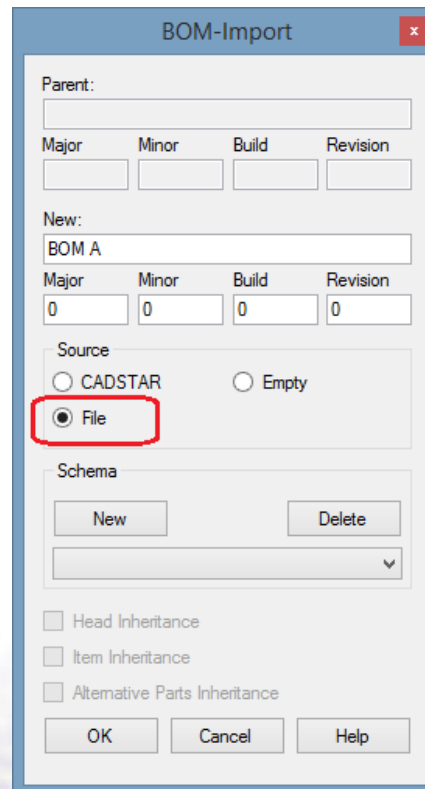


**BOM X**

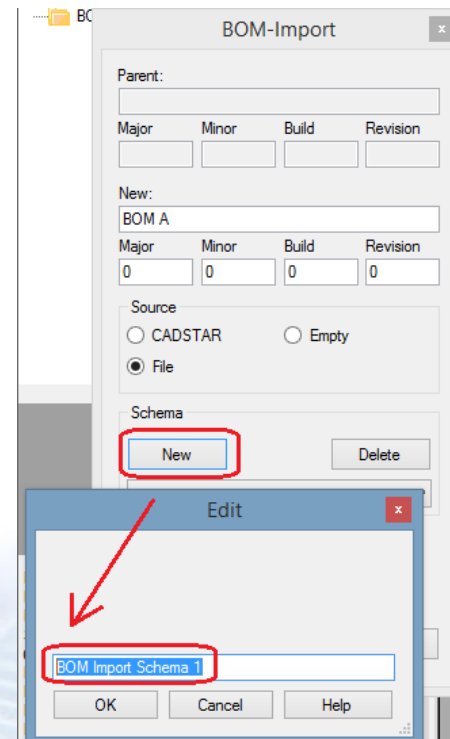


**BOM Management**

Select File for CSV Import



If not available  
create a new Import Schema for further reuse





# CSV Import Setting

Select csv file from Open File Dialog and press "ok"

Choose schema file and press "forward"

**BOM-Value Import**

Import-Schema  
☐ New schema  
☒ Existing schema BOM Import Scheme

Csv with Columnnames  
☒ Yes  
☐ No

Component  
 PLCC-20  
 PLCC-28  
 PLCC-28  
 PLCC-28

<Back Forward>

**BOM-Value Import**

DelimitedStyle  
☒ Delimited  
☐ Fixed Length

Component  
 PLCC-20  
 PLCC-28  
 PLCC-28  
 PLCC-28

<Back Forward> Cancel

**BOM-Value Import**

Delimiter  
☐ Comma ☒ Semicolon ☐ Pipe ☐ Other

Qualifier  
☒ Qualifier = \" ☐ No qualifier ☐ Other

Decimal-Symbol . Max Rowlength 8000

Component	Partname	Description
PLCC-20	ADC0838BCV	ANALOG TO DIGITAL C...
PLCC-28	AD1555AP	24-BIT ADC WITH LOW ...
PLCC-28	AD1671AP	COMPLETE 12-BIT 1.25 ...
PLCC-28	AD569JP	16-BIT MONOTONIC VO...

<Back Forward> Cancel Complete

Depending your format select ' or ;'

Select you field Mapping'

**Column-Mapping: CSV-->BOM-Value**

Please map your columns:

Source	Destination
Partname	SYSTEM_MRPLINK_BomRef
Component	SYSTEM_MRPLINK_ComponentName
Description	SYSTEM_MRPLINK_Remark
*	<Choose a Destination-Column>

**Auto Mapped Columns:** OK Auto Mapping

**Unmapped Columns:** Cancel Help Report

# MRP-Link BOM Import

BOM A is now imported

MRP-Link - [BOM Management]

Modules Library Searcher Primary Source Secondary Source BOM Management BOM Reports Administration Customer Tools View Help

New BOM Release Types Column Mapping BOM List Add/Remove List Column Mapping BOM Head Add/Remove Head Inheritance Columns

Tree

- BOMs
  - BOM A
    - BOM A [0\_0\_0\_0]

Name: ADC12062CIV  
Number:  
Description: 12-BIT, 1 MHZ, 75 MW A/D CONVERT  
Symbol: ADC12062  
Component: PLCC-44  
Library Alias: CS16\_Standort\_Kiel  
Library Path: D:\2015\CADSTAR\16\_0\Express\Lib  
Library Version: 1  
Library Name: Natsemi\_Parts  
Part Acceptance:

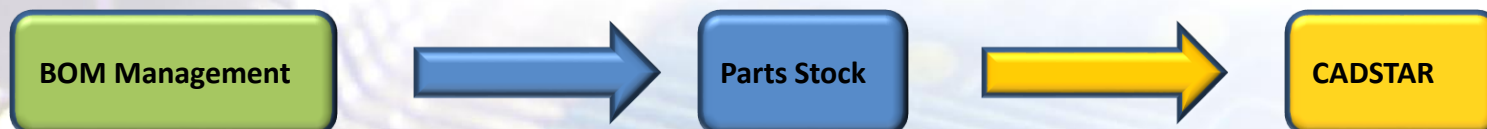
SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN
AZ23C15	SOT23-3				
AZ23C24	SOT23-3				
AZ23C20	SOT23-3				
ADC12062CIV	PLCC-44				
AD7569UP	PLCC-28				
AZ23C3V6	SOT23-3				
ADC0838BCV	PLCC-20				
AZ23C4V3	SOT23-3				
AD2583AP	PLCC-44				
AD7008JP50	PLCC-44				
AZ23C51	SOT23-3				

Query-BUILDER activ Query =  
53 0000,0370sec. Total rows: 53 Searching [F5] Open Query Save Query Allow Delete Collective Number

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

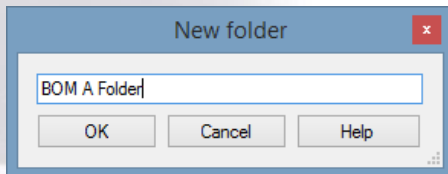
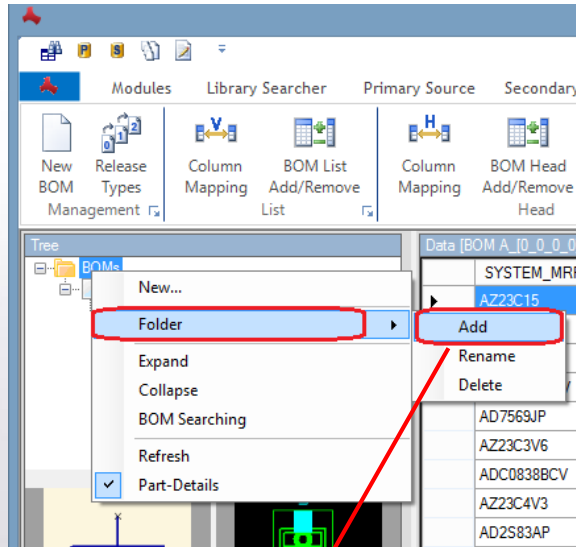
Current User: sa | Database Info:

With a right index reference we will see inside the BOM Detailed View the SCM Symbol, the PCB Component and Part Details like (Part Name, Symbol Name, Library Alias, Library Path, Part Acceptance).

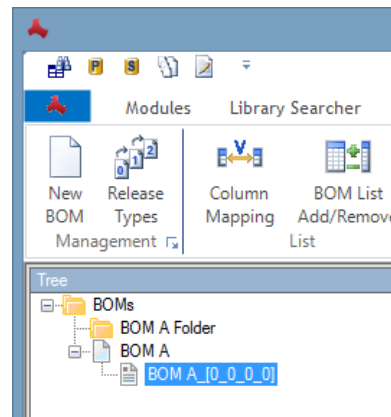


# Organize BOM's in Folder

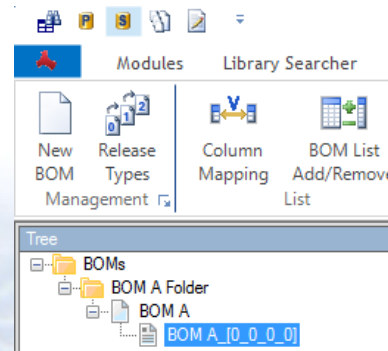
It is possible to create Folders to organize BOM's in an hierarchical structure.



## Create a New Folder



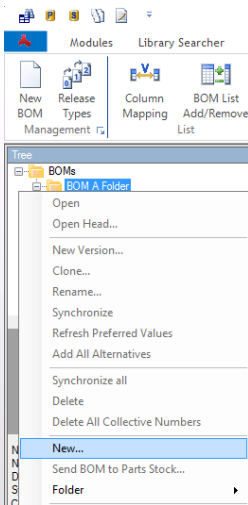
Move the BOM A with drag & drop into the folder



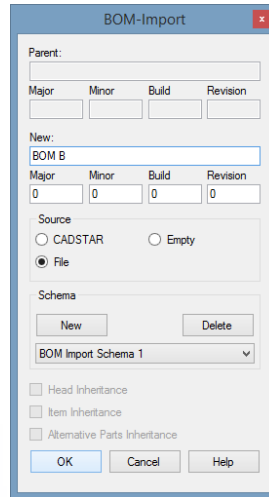
# Semi Autoimport next BOM B

(with Schema & Complete function)

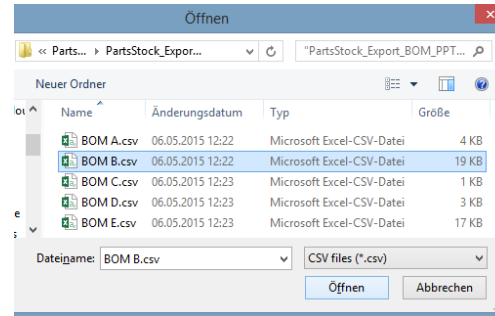
## Step 1



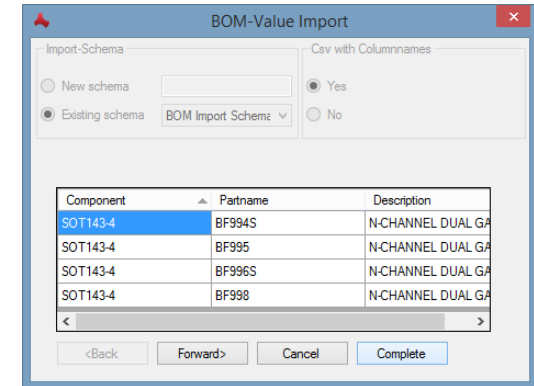
## Step 2



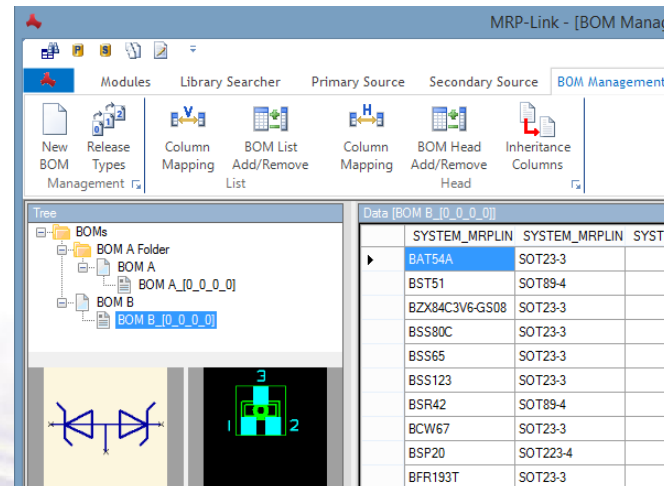
## Step 3



## Step 4



## Finish



Only few steps necessary to import a new BOM.

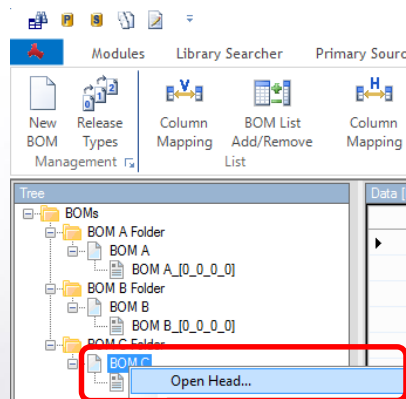
With an existing Import Schema for a specified CSV File and execute complete function you will reduce the necessary work.

# Add to BOM a Title and description

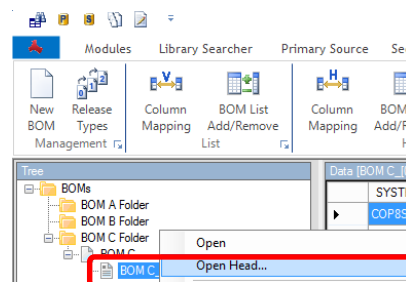
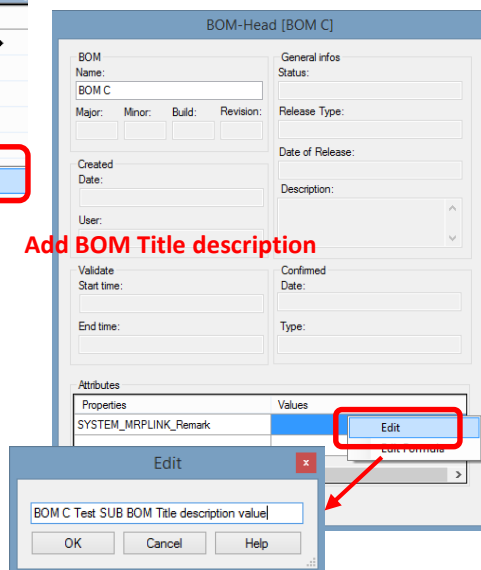
Each BOM has one title.

Each BOM version has his own description.

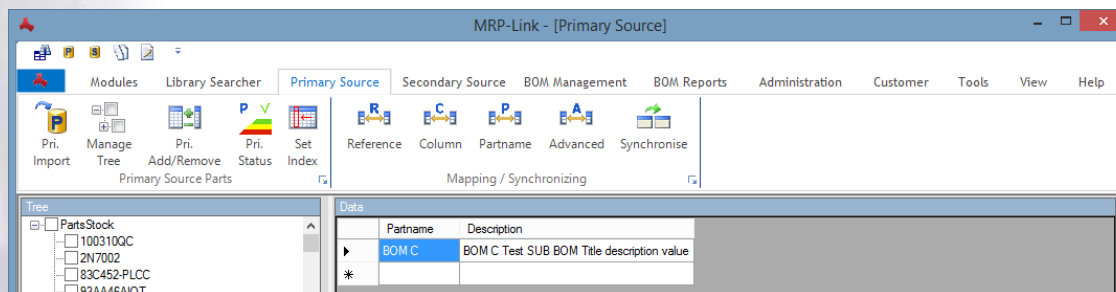
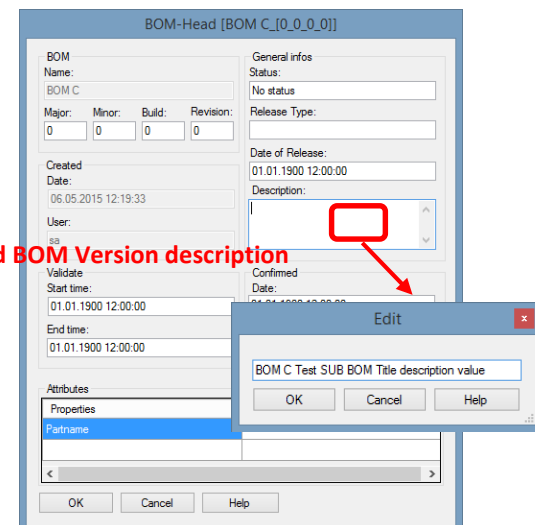
Which is the Part description, when a BOM becomes a Part.



Add BOM Title description



Add BOM Version description

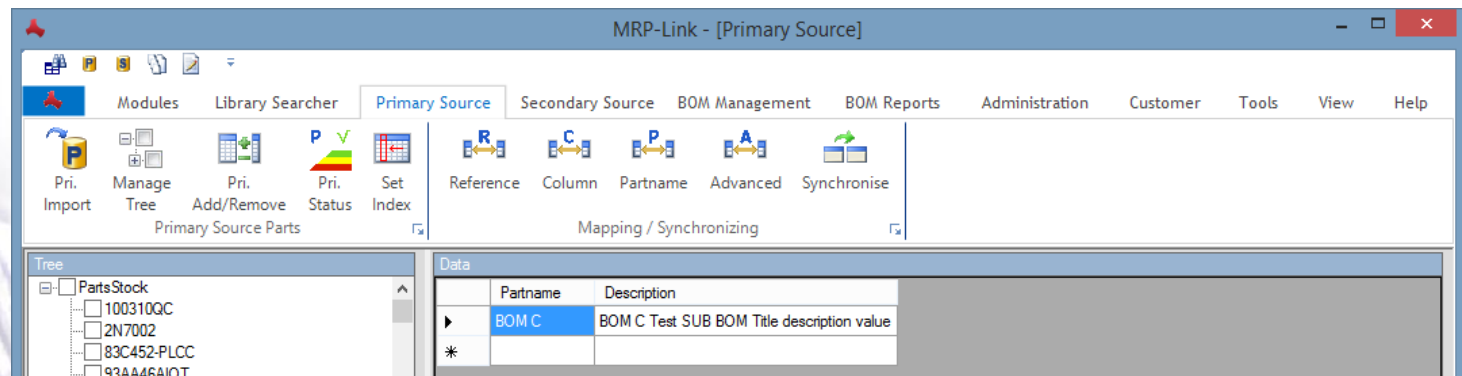
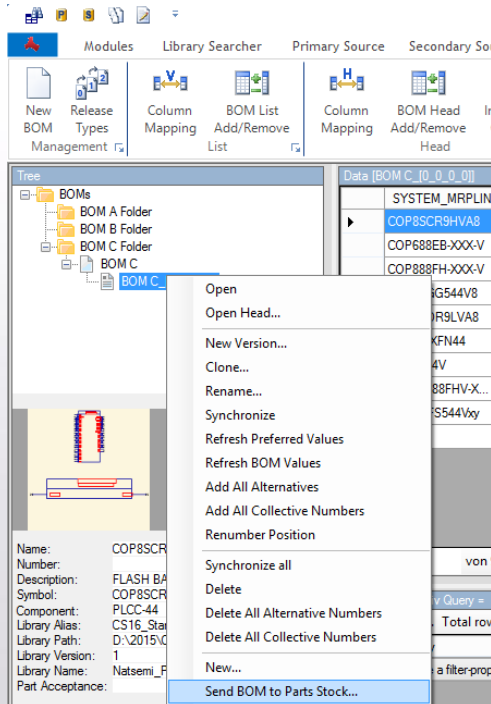
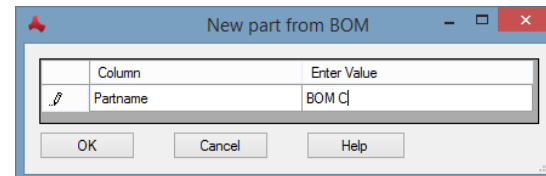


# How to create from BOM a Part

Each BOM can become a Part with only one mouse click.

When a BOM is a Part, it represent the whole BOM as a single Part.

In the usages is no difference for to a single Part.





# Compare BOM View and Part View

In the Part Stock we find the BOM Name with a description for this BOM as single Part.

MRP-Link

Modules Library Searcher Primary Source Secondary Source BOM Management BOM Reports Administration Customer Tools View Help

### BOM Management

Tree

- BOMs
  - BOM A Folder
    - BOM A
      - BOM A\_0\_0\_0\_0]
  - BOM B Folder
    - BOM B
      - BOM B\_0\_0\_0\_0]
  - BOM C Folder
    - BOM C
      - BOM C\_0\_0\_0\_0]

Data [BOM A\_0\_0\_0\_0]

SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN
AZ23C24	SOT23-3	
AZ23C30	SOT23-3	
ADC12062CIV	PLCC-44	
AD7569JP	PLCC-28	
AZ23C3V6	SOT23-3	
ADC0838BCV	PLCC-20	
AZ23C4V3	SOT23-3	
AD2S83AP	PLCC-44	
AD7008JP50	PLCC-44	
AZ23C51	SOT23-3	
ADSP-2101KP-100	PLCC-68	
AZ23C3V3	SOT23-3	
A1010B-1PL44C	PLCC-44	
AZ23C47	SOT23-3	
AZ23C4V7	SOT23-3	
AZ23C27	SOT23-3	

Query-Builder activ Query =

53 0000,0469sec. Total rows: 53 Searching [F5] Open Query

Property	Comp.	Value
>>> <Choose a filter-property>	LIKE	

Current User: sa Database Info:

### Primary Source

Tree

- PartsStock
  - 100310QC
  - 2N7002
  - 83C452-PLCC
  - 93AA46AIOT
  - 93AA56AIOT
  - 93AA66BIOT
  - 93AA86AIOT
  - 93C46AEOT
  - 93C56AEOT
  - 93C66AEOT
  - 93C76AEOT
  - 93C86AEOT
  - 93LC46AEOT
  - 93LC56AEOT
  - 93LC66AEOT
  - 93LC76AEOT

Data

Partname	Description
BOM A	BOM A Test SUB BOM Title description value
BOM B	BOM B Test SUB BOM Title description value
BOM C	BOM C Test SUB BOM Title description value

Query-Builder activ Query =

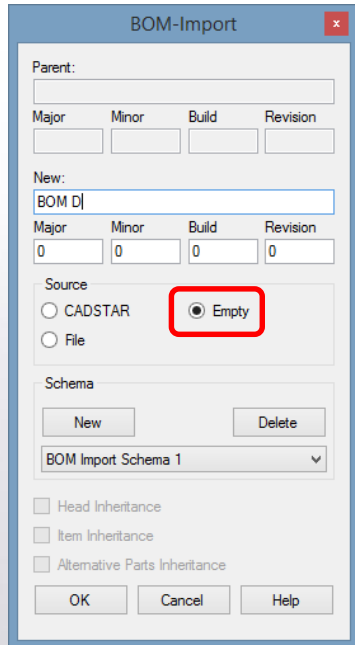
3 0000,0000sec. Total rows: 1180 Searching [F5] Open Query Save Query

	Comp.	Value	Bool	Order
>>>	LIKE	*BOM*	AND	NO...
>>>	LIKE		AND	NO...

Current User: sa Database Info:

# Create Master BOM & Add Part as BOM

## Step 1

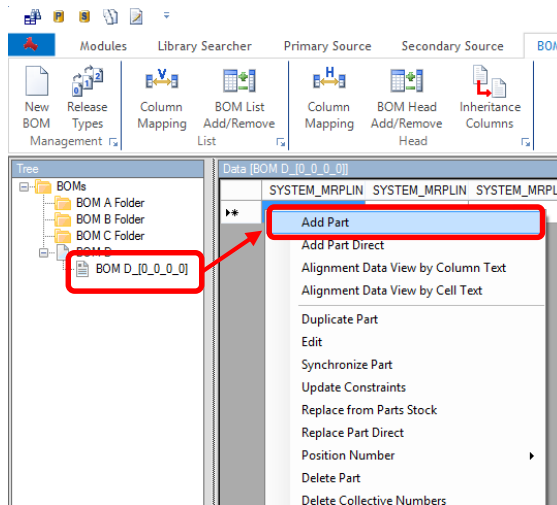


The BOM-Import dialog box is shown. It has fields for Parent, Major, Minor, Build, and Revision. The 'New:' section has a text field containing 'BOM D'. Below this, there are radio buttons for 'Source': 'CADSTAR' and 'Empty'. The 'Empty' radio button is selected and highlighted with a red circle. There is also a 'Schema' section with a dropdown menu set to 'BOM Import Schema 1'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

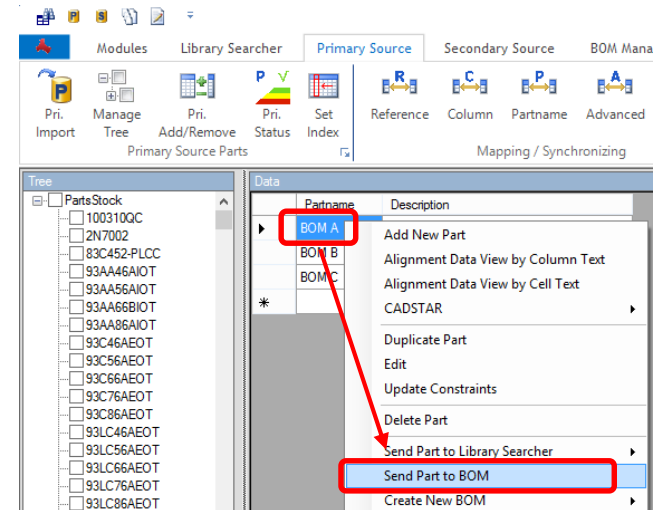
Now an empty BOM is to be created.

As first Part the Part "BOM A" is added to this BOM. There is no difference to add a Part or a Part which is a BOM.

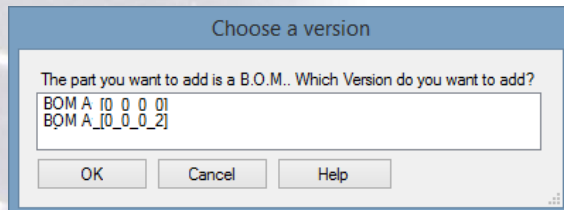
## Step 2



## Step 3



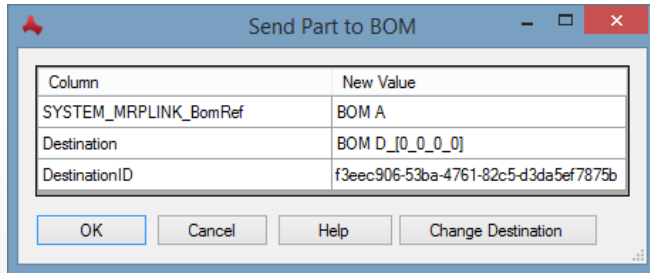
## Step 4



The 'Choose a version' dialog box is shown. It contains the text: 'The part you want to add is a B.O.M.. Which Version do you want to add?'. Below this text is a list box containing two entries: 'BOM A [0\_0\_0\_0]' and 'BOM A [0\_0\_0\_2]'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

This Part is an BOM with an index of [0,0,0,0]. Deepening how may Index Values this BOM have you can select that one of the versions.

# Create Master BOM & Add Part as BOM 2

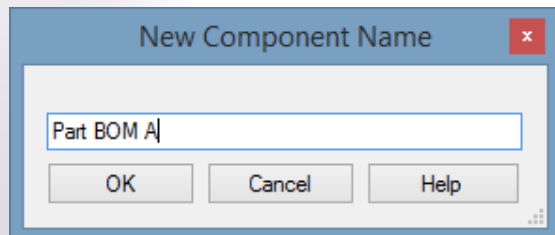


Send Part to BOM

Column	New Value
SYSTEM_MRPLINK_BomRef	BOM A
Destination	BOM D_[0_0_0_0]
DestinationID	f3eec906-53ba-4761-82c5-d3da5ef7875b

OK Cancel Help Change Destination

Since the target BOM can have multiple indexes, all these index values are displayed.

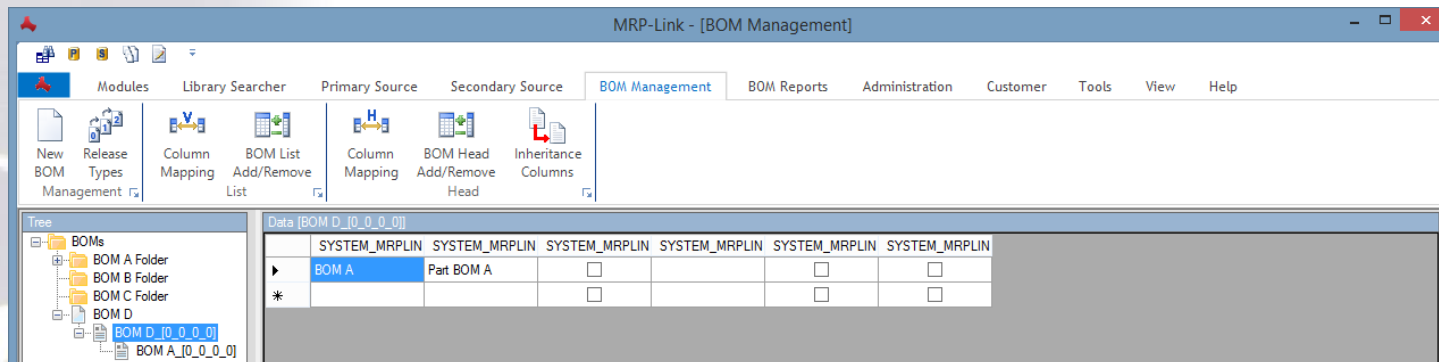


New Component Name

Part BOM A

OK Cancel Help

Each new added Part becomes in this field now a reference name.



MRP-Link - [BOM Management]

Modules Library Searcher Primary Source Secondary Source BOM Management BOM Reports Administration Customer Tools View Help

New BOM Release Column Mapping BOM List Add/Remove Column Mapping BOM Head Add/Remove Inheritance Columns

Tree

- BOMs
  - BOM A Folder
  - BOM B Folder
  - BOM C Folder
  - BOM D
    - BOM D\_[0\_0\_0\_0]
    - BOM A\_[0\_0\_0\_0]

Data [BOM D\_[0\_0\_0\_0]]

	SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN
BOM A	Part BOM A				
*					

The BOM a is now a simple Part in this BOM.

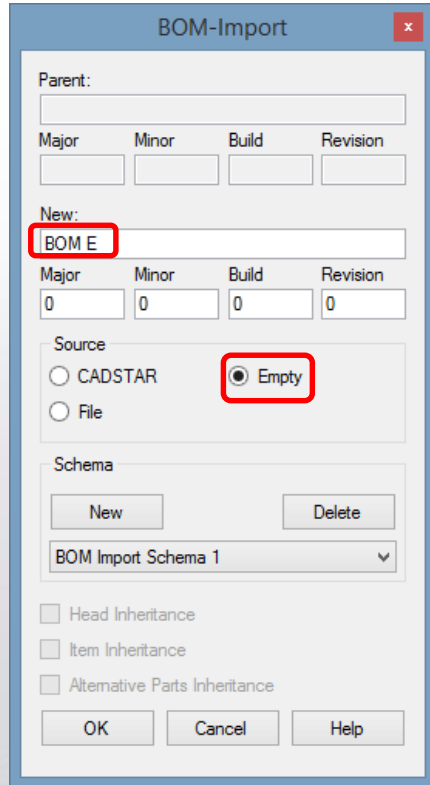
# View after add a Part as BOM

The view from a Part which is a BOM in the BOM  
This identifiable in the Tree View.

The screenshot shows the MRP-Link software interface with the following components:

- Top Menu Bar:** Modules, Library Searcher, Primary Source, Secondary Source, BOM Management, BOM Reports, Administration, Customer, Tools, View, Help.
- BOM Management Panel:**
  - Tree View:** Shows a hierarchy of BOMs. 'BOM A [0\_0\_0\_0]' is highlighted with a red box.
  - Data Table:** Displays a list of parts with columns: SYSTEM\_MRPLIN, SYSTEM\_MRPLIN, SYSTEM\_MRPLIN. The first row is highlighted.
  - Part Details:** Shows information for part AZ23C15, including Description (300 MW DUAL SURF), Symbol (AZ23C), Component (SOT23-3), Library Path (D:\2015\CADSTAR\1), Library Version (1), Library Name (Vishay\_Parts), and Part Acceptance.
- Primary Source Panel:**
  - Tree View:** Shows a list of parts. 'BOM D' is highlighted with a red box.
  - Data Table:** Displays a list of parts with columns: Partname, Description. The first row is highlighted.
  - Query-Builder:** Shows an active query with 5 rows and 1182 total rows. The query is: 5 0000.0000sec. Total rows: 1182 Searching [F5] Open Query Save Query. The query results show a table with columns: Property, Comp., Value, and a filter property.

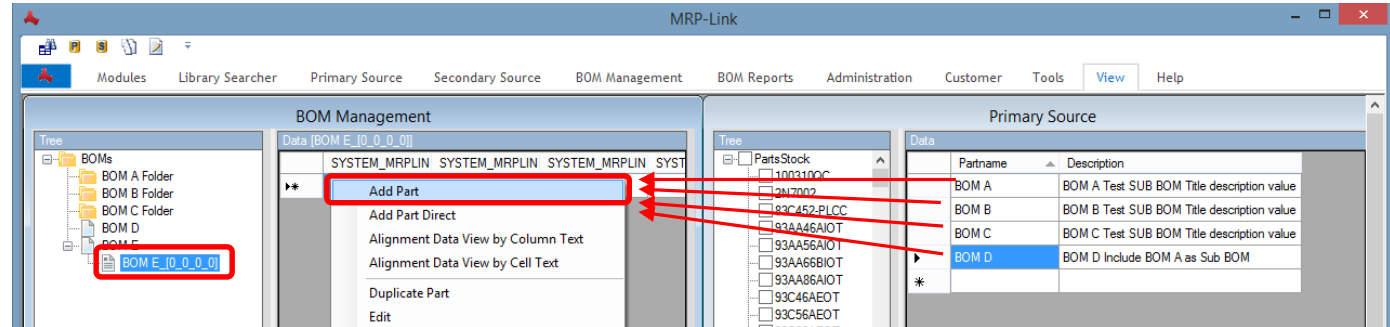
# Create the finale BOM



The BOM-Import dialog box is shown with the following fields and options:

- Parent: (empty)
- Major: (empty), Minor: (empty), Build: (empty), Revision: (empty)
- New: **BOM E** (highlighted with a red box)
- Major: 0, Minor: 0, Build: 0, Revision: 0
- Source: ☐ CADSTAR, ☒ **Empty** (highlighted with a red box)
- Schema: New, Delete, BOM Import Schema 1 (dropdown)
- ☐ Head Inheritance, ☐ Item Inheritance, ☐ Alternative Parts Inheritance
- OK, Cancel, Help buttons

The final BOM E should include all other BOM's we have create before.



With the normal Add Part function all this parts will be added to the final BOM.

Of course it is also possible to add in the same way a simple Part.

# All Part Added in the final BOM

MRP-Link

Modules Library Searcher Primary Source Secondary Source BOM Management BOM Reports Administration Customer Tools View Help

**BOM Management**

Tree

- BOMs
  - BOM A Folder
    - BOM A
    - BOM A\_10\_0\_0\_0
  - BOM B Folder
    - BOM B
    - BOM B\_10\_0\_0\_0
  - BOM C Folder
    - BOM C
    - BOM C\_10\_0\_0\_0
  - BOM D
    - BOM D\_10\_0\_0\_0
    - BOM A\_10\_0\_0\_0
  - BOM E
    - BOM E\_10\_0\_0\_0
    - BOM D\_10\_0\_0\_0
    - BOM A\_10\_0\_0\_0
    - BOM C\_10\_0\_0\_0
    - BOM A\_10\_0\_0\_0

Data [BOM A\_10\_0\_0\_0]

SYSTEM_MRPLIN	SYSTEM_MRPLIN	SYSTEM_MRPLIN
ADC12062CIV	PLCC-44	
AZ23C5V6	SOT23-3	
AD7884BP	PLCC-44	
AZ23C10	SOT23-3	
AZ23C16	SOT23-3	
AD1671AP	PLCC-28	
AZ23C9V1	SOT23-3	
AZ23C6V2	SOT23-3	
AZ23C33	SOT23-3	
AZ23C4V3	SOT23-3	
AZ23C11	SOT23-3	
A1010B-1PL44C	PLCC-44	
AD1555AP	PLCC-28	
AD7547KP	PLCC-28	
AZ23C12	SOT23-3	
AZ23C3V9	SOT23-3	
AD563JP	PLCC-28	
AZ23C4V7	SOT23-3	
ADV7120KP30	PLCC-44	
A772C41	SOT23-3	

Query-Builders active Query =

53 0000,0312sec. Total rows: 53 Searching [F5] Open Query

Property	Comp.	Value
<Choose a filter-property>	LIKE	

Current User: sa Database Info:

**Primary Source**

Tree

- PartsStock
  - 1003100C
  - 2N7002
  - 83C452-PLCC
  - 93AA46A10T
  - 93AA56A10T
  - 93AA66B10T
  - 93AA66A10T
  - 93C46AEOT
  - 93C56AEOT
  - 93C66AEOT
  - 93C76AEOT
  - 93C86AEOT
  - 93LC46AEOT
  - 93LC56AEOT
  - 93LC66AEOT
  - 93LC76AEOT
  - 93LC86AEOT
  - A1010B-1PL44C
  - A32140DX-1PL84C
  - AD1555AP
  - AD1671AP
  - AD2582AHP
  - AD2583AP
  - AD563JP
  - AD667JP
  - AD7008JP50
  - AD7547KP
  - AD7569JP
  - AD7884BP
  - AD7891AP-1
  - ADC0838BCV
  - ADC12062CIV
  - ADSP-2101BP-66
  - ADSP-2101KP-100
  - ADSP-2115BP-100
  - ADSP-2161BP-66
  - ADV7120KP30
  - AY0438IL
  - AZ23C10
  - AZ23C11
  - AZ23C12

Data

Partname	Description
BOM A	BOM A Test SUB BOM Title description value
BOM B	BOM B Test SUB BOM Title description value
BOM C	BOM C Test SUB BOM Title description value
BOM D	BOM D Include BOM A as Sub BOM

Query-Builders active Query =

4 0000,0000sec. Total rows: 1181 Searching [F5] Open Query

Property	Comp.	Value
Partname	LIKE	*BOM*
<Choose a filter-property>	LIKE	

Current User: sa Database Info:

Here we can see, the view after adding all parts into the BOM.



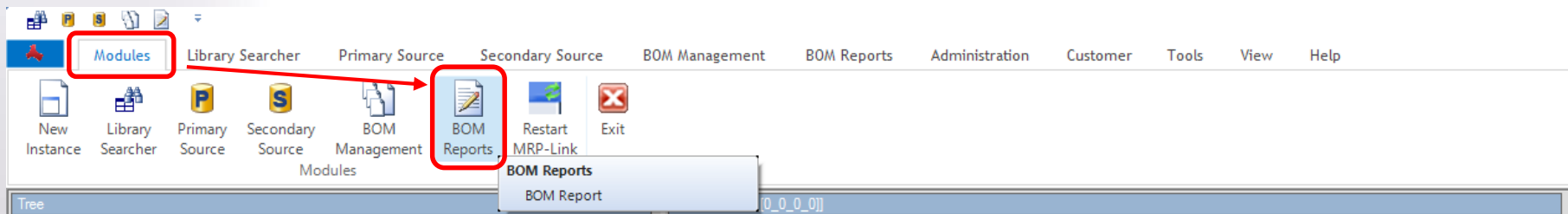
# Open B.O.M. Reports

The BOM Management is the area where we manage the BOM's.

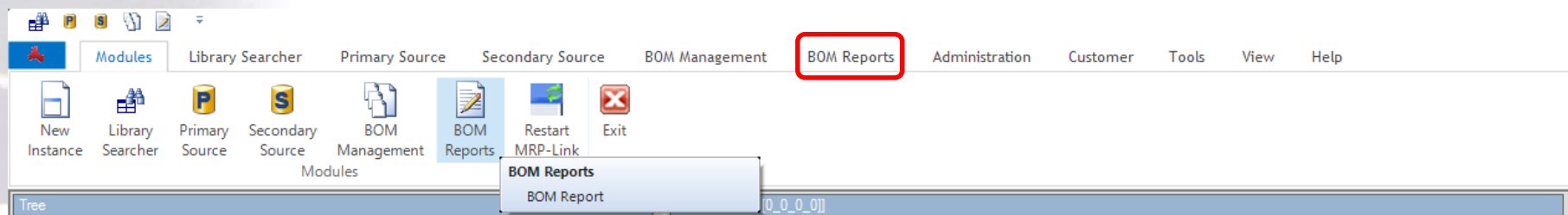
In this view is only a flat view without any hierarchy possible.

The BOM Reports show a view over all hierarchy BOMS's.

You can start the BOM Reports on Modules Tab

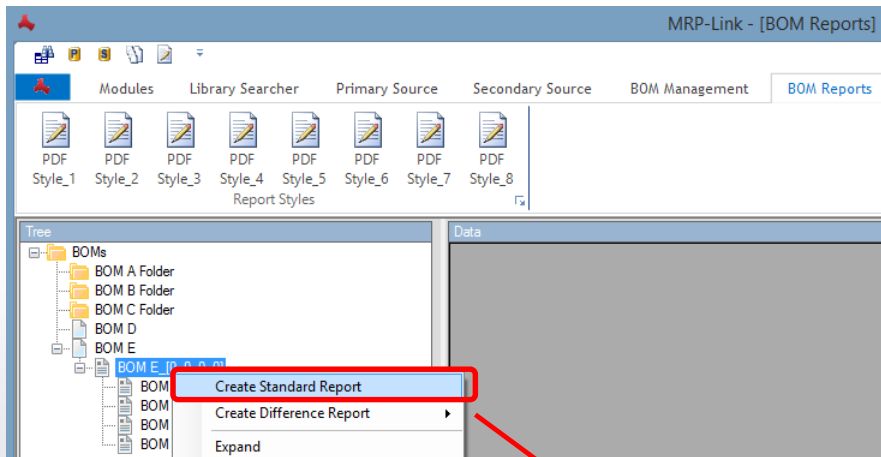


Or you click directly to BOM Reports Tab



# B.O.M. Reports Select Standard Report

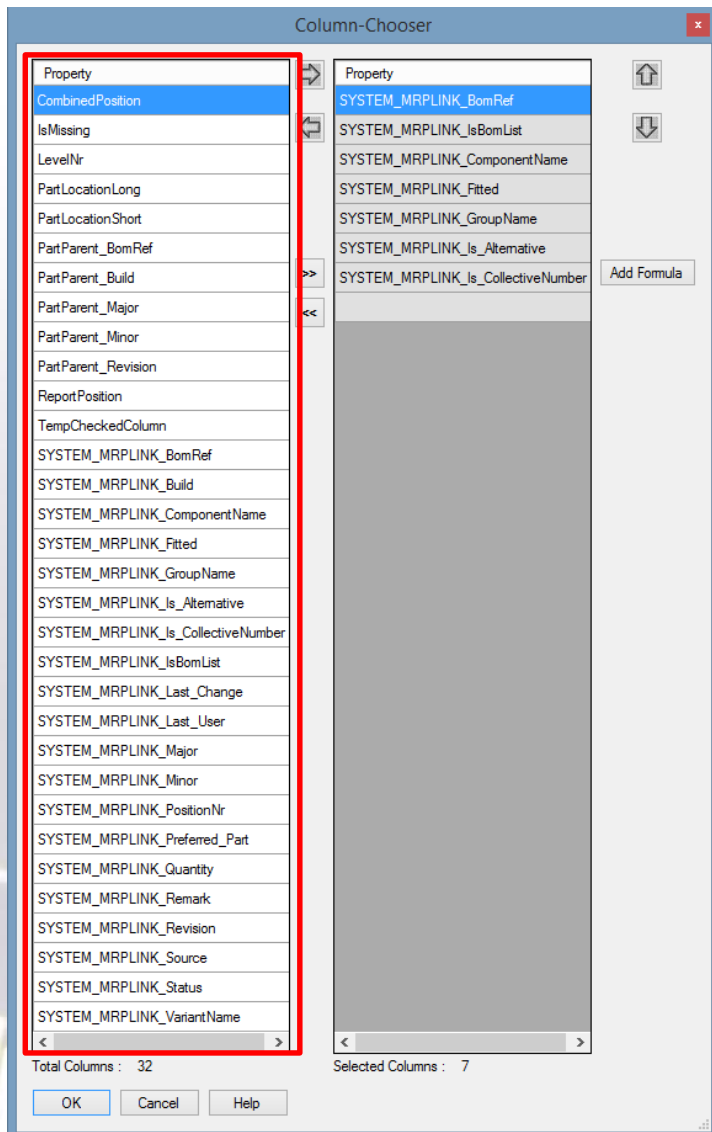
With a simple RMB-click we decide  
to create a Standard hierarchical Expanded View.



The screenshot shows the 'MRP-Link - [BOM Reports]' window with the 'Data [BOM E\_[0\_0\_0\_0]]' pane. The 'Tree' pane on the left shows the BOM hierarchy, with 'BOM E [0\_0\_0\_0]' selected. The 'Data' pane displays a table with the following data:

SYSTEM_MRPLINK_BomRef	SYSTEM_MRPLINK_IsBomList	SYSTEM_MRPLINK_Componen
BFS17R	<input type="checkbox"/>	SOT23-3
BFS17W	<input type="checkbox"/>	SOT323-3
BFS20	<input type="checkbox"/>	SOT23-3
BOM A	<input checked="" type="checkbox"/>	Part BOM A
BOM A	<input checked="" type="checkbox"/>	Part BOM A
BOM B	<input checked="" type="checkbox"/>	Part BOM B
BOM C	<input checked="" type="checkbox"/>	Part BOM C
BOM D	<input checked="" type="checkbox"/>	Part BOM D
BS170F	<input type="checkbox"/>	SOT23-3

# Hierarchical Report Columns



Here we have a series of new columns where we can select to display as usual view.

Most of this new columns are reference to the structure of the BOM's.

Depend of the selection of columns you can create a very wide range of reports.

# Example view as Excel output

	A	B	C	D	E	F	G
1	LevelNr	Part Location Long	PartParent_BomRef	ReportPosition	SYSTEM_MRPLINK_IsBom	SYSTEM_MRPLINK_BomRef	SYSTEM_MRPLINK_Remark
2	0			1	True	BOM A	BOM A Test SUB BOM
3	1	BOM A_[0_0_0_0]	BOM A	2	False	10uF-10V-EC	10uF 10V Electrolytic Capacitor
4	1	BOM A_[0_0_0_0]	BOM A	3	False	10uF-10V-EC	10uF 10V Electrolytic Capacitor
5	1	BOM A_[0_0_0_0]	BOM A	4	False	1N914	High-speed diode
6	1	BOM A_[0_0_0_0]	BOM A	5	False	1N914	High-speed diode
7	1	BOM A_[0_0_0_0]	BOM A	6	False	HLMP-1585	LED GREEN 3MM HLMP-1585
8	1	BOM A_[0_0_0_0]	BOM A	7	False	HLMP-1585	LED GREEN 3MM HLMP-1585
9	1	BOM A_[0_0_0_0]	BOM A	8	False	470E-MRS25-1%	Metal film resistor MRS25 470E 1%
10	1	BOM A_[0_0_0_0]	BOM A	9	False	470E-MRS25-1%	Metal film resistor MRS25 470E 1%
11	1	BOM A_[0_0_0_0]	BOM A	10	False	39K-MRS25-1%	Metal film resistor MRS25 39K 1%
12	1	BOM A_[0_0_0_0]	BOM A	11	False	39K-MRS25-1%	Metal film resistor MRS25 39K 1%
13	1	BOM A_[0_0_0_0]	BOM A	12	False	2N3904	SABER TRANSISTOR
14	1	BOM A_[0_0_0_0]	BOM A	13	False	2N3904	SABER TRANSISTOR
15	0			14	True	BOM B	BOM B Test SUB BOM
16	1	BOM B_[0_0_0_0]	BOM B	15	False	47uF-10V-EC	47uF 10V Electrolytic Capacitor
17	1	BOM B_[0_0_0_0]	BOM B	16	False	1000uF-50V-EC	1000uF 50V Electrolytic Capacitor
18	1	BOM B_[0_0_0_0]	BOM B	17	False	1N4148	High-speed diode
19	1	BOM B_[0_0_0_0]	BOM B	18	False	1N4148	High-speed diode
20	1	BOM B_[0_0_0_0]	BOM B	19	False	1K5-MRS25-1%	Metal film resistor MRS25 1K5 1%
21	1	BOM B_[0_0_0_0]	BOM B	20	False	5K6-MRS25-1%	Metal film resistor MRS25 5K6 1%
22	1	BOM B_[0_0_0_0]	BOM B	21	False	22E-MRS25-1%	Metal film resistor MRS25 22E 1%
23	1	BOM B_[0_0_0_0]	BOM B	22	False	470E-MRS25-1%	Metal film resistor MRS25 470E 1%
24	1	BOM B_[0_0_0_0]	BOM B	23	False	3E3-MRS25-1%	Metal film resistor MRS25 3E3 1%
25	1	BOM B_[0_0_0_0]	BOM B	24	False	3E3-MRS25-1%	Metal film resistor MRS25 3E3 1%
26	1	BOM B_[0_0_0_0]	BOM B	25	False	2N3053	MED POWER SIL NPN PLAN TRANSISTOR
27	1	BOM B_[0_0_0_0]	BOM B	26	False	2N3053	MED POWER SIL NPN PLAN TRANSISTOR
28	1	BOM B_[0_0_0_0]	BOM B	27	False	2N2905A	SIL. PLAN. EPL TRANSISTOR
29	0			28	True	BOM C	BOM C Test SUB BOM Version
30	1	BOM C_[0_0_0_0]	BOM C	29	False	1UF-C0805-20/100%	Chip capacitor
31	1	BOM C_[0_0_0_0]	BOM C	30	False	1UF-C0805-20/100%	Chip capacitor
32	1	BOM C_[0_0_0_0]	BOM C	31	False	1UF-C0805-20/100%	Chip capacitor
33	1	BOM C_[0_0_0_0]	BOM C	32	False	10E-R0805-2%	Chip resistor 0805 10E 2%
34	1	BOM C_[0_0_0_0]	BOM C	33	False	10E-R0805-2%	Chip resistor 0805 10E 2%
35	1	BOM C_[0_0_0_0]	BOM C	34	False	10E-R0805-2%	Chip resistor 0805 10E 2%
36	1	BOM C_[0_0_0_0]	BOM C	35	False	PCF80C552-4WP	8 bit microcontroller -40..85 deg.C.
37	1	BOM C_[0_0_0_0]	BOM C	36	False	PCF80C552-4WP	8 bit microcontroller -40..85 deg.C.
38	1	BOM C_[0_0_0_0]	BOM C	37	False	74HC573MD	Octal D-type Latch Tri-State
39	1	BOM C_[0_0_0_0]	BOM C	38	False	74HC573MD	Octal D-type Latch Tri-State
40	1	BOM C_[0_0_0_0]	BOM C	39	False	74HC573MD	Octal D-type Latch Tri-State
41	1	BOM C_[0_0_0_0]	BOM C	40	False	74HC573MD	Octal D-type Latch Tri-State
42	1	BOM C_[0_0_0_0]	BOM C	41	False	CON-EURO96-MA	Euro Connector 96 Pins Male Angled
43	1	BOM C_[0_0_0_0]	BOM C	42	False	CON-EURO96-MA	Euro Connector 96 Pins Male Angled
44	1	BOM C_[0_0_0_0]	BOM C	43	False	CON-EURO96-MA	Euro Connector 96 Pins Male Angled
45	0			44	True	BOM D	BOM D Include BOM A as Sub
46	1	BOM D_[0_0_0_0]	BOM D	45	True	BOM A	BOM A Test SUB BOM
47	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	46	False	10uF-10V-EC	10uF 10V Electrolytic Capacitor
48	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	47	False	10uF-10V-EC	10uF 10V Electrolytic Capacitor
49	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	48	False	1N914	High-speed diode
50	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	49	False	1N914	High-speed diode
51	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	50	False	HLMP-1585	LED GREEN 3MM HLMP-1585
52	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	51	False	HLMP-1585	LED GREEN 3MM HLMP-1585
53	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	52	False	470E-MRS25-1%	Metal film resistor MRS25 470E 1%
54	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	53	False	470E-MRS25-1%	Metal film resistor MRS25 470E 1%
55	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	54	False	39K-MRS25-1%	Metal film resistor MRS25 39K 1%
56	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	55	False	39K-MRS25-1%	Metal film resistor MRS25 39K 1%
57	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	56	False	2N3904	SABER TRANSISTOR
58	2	BOM D_[0_0_0_0]BOM A_[0_0_0_0]	BOM A	57	False	2N3904	SABER TRANSISTOR

# MRP-Link Report as PDF Output

## CSK-Report

BOM: BOM E Mayor: 0 Export Time 29.11.2009 20:28:37  
 Validate\_Start: 1900-01-01T12:00:00+01:00 Minor: 0 Report Maker sa  
 Validate\_End: 1900-01-01T12:00:00+01:00 Build: 0  
 Status: No status Revision: 0  
 Parts: 57  
 Price: 0.00

**CSK**  
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 Struckbrook 49  
 D-24181 Altenholz  
 Telefon +49 431-32917-0  
 Telefax +49 431-32917-28

Pos	Part	Cnt	Components	Description	Price	Sum
1	10uF-10V-EC	4	, C2 , C1 , C2 , C1	10uF 10V Electrolytic Capacitor	NaN	
2	1N914	4	, D2 , D2 , D1 , D1	High-speed diode	NaN	
3	PCF80C552-4WP	2	, U1 , U1	8 bit microcontroller -40..85 deg.C.	NaN	
4	1000uF-50V-EC	1	, C2	1000uF 50V Electrolytic Capacitor	NaN	
5	2N3053	2	, TR2 , TR1	MED.POWER SIL.NPN PLAN.TRANSISTOR	NaN	
6	1K5-MRS25-1%	1	, R1	Metal film resistor MRS25 1K5 1%	NaN	
7	39K-MRS25-1%	4	, R3 , R4 , R4 , R3	Metal film resistor MRS25 39K 1%	NaN	
8	1N4148	2	, D1 , D2	High-speed diode	NaN	
9	BOM D	1	, Part D	BOM D Include BOM A as Sub	NaN	
10	BOM B	1	, Part B	BOM B Test SUB BOM	NaN	
11	74HC573MD	4	, U3 , U2 , U3 , U2	Octal D-type Latch Tri-State	NaN	
12	HLMP-1585	4	, LED1 , LED2 , LED1 , LED2	LED GREEN 3MM HLMP-1585	NaN	
14	2N2905A	1	, TR3	SIL. PLAN. EPI. TRANSISTOR	NaN	
15	470E-MRS25-1%	5	, R2 , R4 , R2 , R1 , R1	Metal film resistor MRS25 470E 1%	NaN	
16	2N3904	4	, TR2 , TR1 , TR1 , TR2	SABER TRANSISTOR	NaN	
21	5K6-MRS25-1%	1	, R2	Metal film resistor MRS25 5K6 1%	NaN	
22	10E-R0805-2%	3	, R3 , R1 , R2	Chip resistor 0805 10E 2%	NaN	
23	CON-EURO96-MA	3	, X1 , X1 , X1	Euro Connector 96 Pins Male Angled	NaN	
25	1UF-C0805-20/100%	3	, C3 , C2 , C1	Chip capacitor	NaN	
26	BOM A	2	, Part BOM A , Part A	BOM A Test SUB BOM	NaN	
27	22E-MRS25-1%	1	, R3	Metal film resistor MRS25 22E 1%	NaN	
32	47uF-10V-EC	1	, C1	47uF 10V Electrolytic Capacitor	NaN	
48	3E3-MRS25-1%	2	, R5 , R6	Metal film resistor MRS25 3E3 1%	NaN	
52	BOM C	1	, Part C	BOM C Test SUB BOM Version	NaN	

Here we see a PDF View which is defined inside MRP-Link.

This view is self adjustable by the user with XHTML as template.

# MRP-Link Report

Partnumber: BOM E Mayor: 0 E Export Time: 06.05.2015 18:18:08  
 Validate\_Start: 1900-01-01T12:00:00+01:00 Minor: 0 R Created by: sa  
 Validate\_End: 1900-01-01T12:00:00+01:00 Build: 0  
 Status: No status Revision: 0  
 Parts: 57

LevelNr	PartLocationLong	PartParent_BomRef	ReportPosition	IsBomList	BomRef	ComponentName	Remark
1	BOM A_[0_0_0_0]	BOM A	3	false	10uF-10V-EC	C2	10uF 10V Electrolytic Capacitor
2	BOM D_[0_0_0_0].BOM A_[0_0_0_0]	BOM A	49	false	1N914	D2	High-speed diode
1	BOM C_[0_0_0_0]	BOM C	36	false	PCF80C552-4WP	U1	8 bit microcontroller -40...85 deg.C.
1	BOM B_[0_0_0_0]	BOM B	16	false	1000uF-50V-EC	C2	1000uF 50V Electrolytic Capacitor
1	BOM B_[0_0_0_0]	BOM B	26	false	2N3053	TR2	MED.POWER SIL.NPN PLAN.TRANSISTOR
1	BOM B_[0_0_0_0]	BOM B	19	false	1K5-MRS25-1%	R1	Metal film resistor MRS25 1K5 1%
1	BOM A_[0_0_0_0]	BOM A	10	false	39K-MRS25-1%	R3	Metal film resistor MRS25 39K 1%
1	BOM B_[0_0_0_0]	BOM B	17	false	1N4148	D1	High-speed diode
0			44	true	BOM D	Part D	BOM D Include BOM A as Sub
0			14	true	BOM B	Part B	BOM B Test SUB BOM
1	BOM C_[0_0_0_0]	BOM C	39	false	74HC573MD	U3	Octal D-type Latch Tri-State
1	BOM A_[0_0_0_0]	BOM A	6	false	HLMP-1585	LED1	LED GREEN 3MM HLMP-1585
1	BOM B_[0_0_0_0]	BOM B	18	false	1N4148	D2	High-speed diode
1	BOM B_[0_0_0_0]	BOM B	27	false	2N2905A	TR3	SIL. PLAN. EPI. TRANSISTOR
2	BOM D_[0_0_0_0].BOM A_[0_0_0_0]	BOM A	53	false	470E-MRS25-1%	R2	Metal film resistor MRS25 470E 1%
2	BOM D_[0_0_0_0].BOM A_[0_0_0_0]	BOM A	57	false	2N3904	TR2	SABER TRANSISTOR
1	BOM C_[0_0_0_0]	BOM C	37	false	74HC573MD	U2	Octal D-type Latch Tri-State
1	BOM B_[0_0_0_0]	BOM B	25	false	2N3053	TR1	MED.POWER



CSK MRP-Link  
*Official German Distributor*

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

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