



**EASYLOGIX.DE**



# Revision control



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# Revision control using ODB++

Load PCB

Prepare the PCB data as ODB++  
The source can be

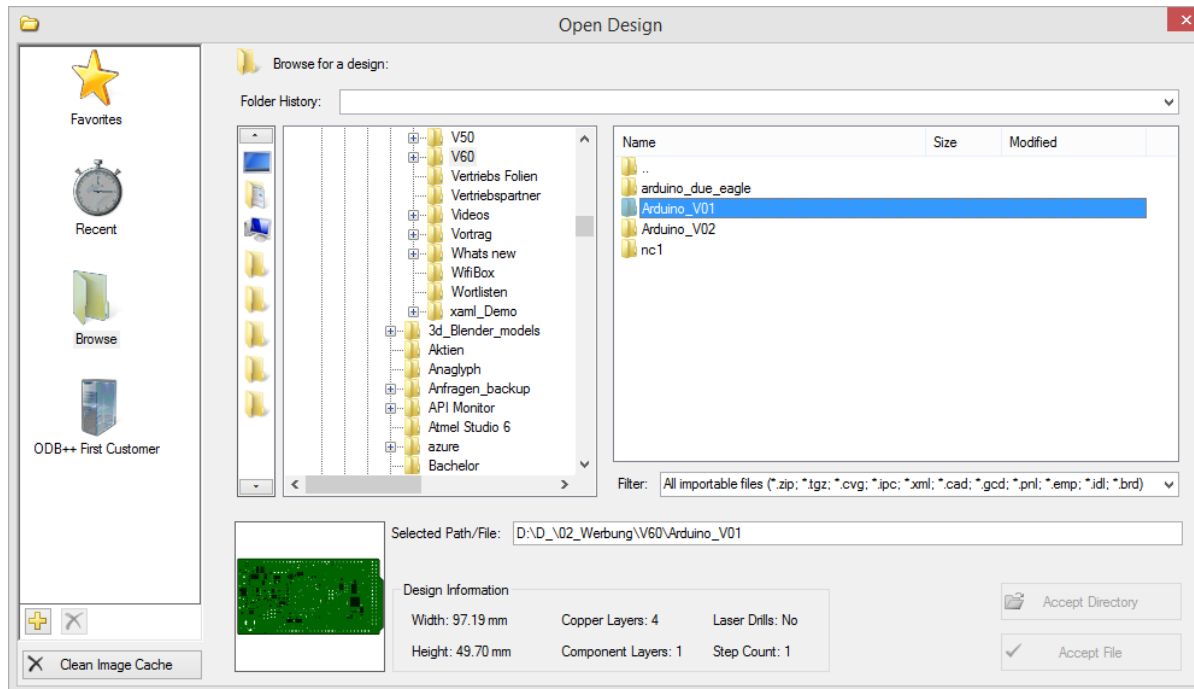
- **ODB++**
- **GenCAD**
- **IPC2581**
- **IDF 2.0 / 3.0**

Setup Compare

Component  
Compare

Net Compare

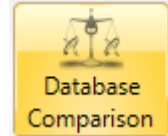
Data content



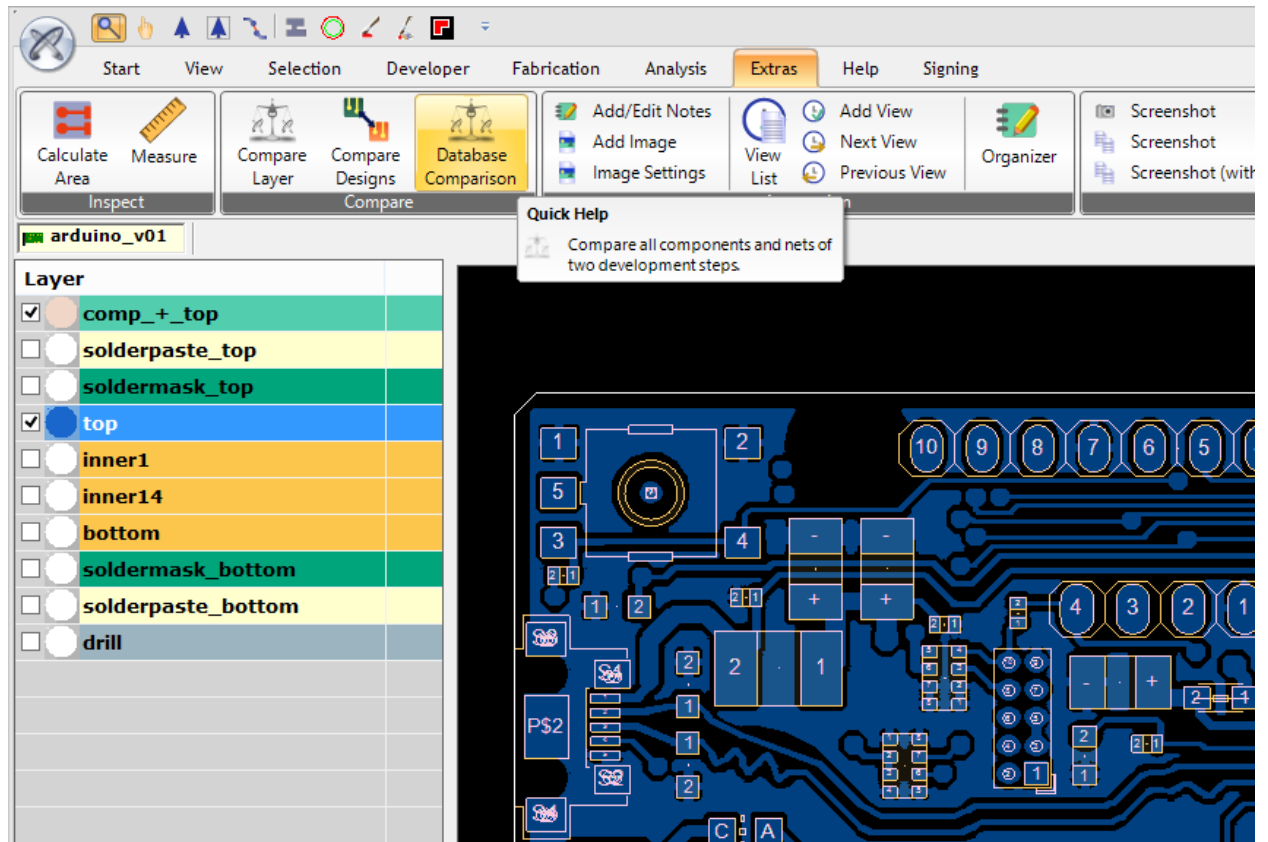
# Revision control using ODB++

Load PCB

To start the comparison process go to the Extras tab and click



Setup Compare



Component Compare

Net Compare

Data content

# Revision control using ODB++

Load PCB

Setup Compare

Component Compare

Net Compare

Data content

Import the second design using one of the open design methods

Compare Jobs

File View Options

Active Job Choose step: arduino\_v01

d:\v60\arduino\_v01

Compared Job Choose step:

Compare Components

List only differences

Components Nets

Open Design

Select a recently opened design:

State	Design Name	Timestamp
	d:\v60\arduino_v01	2015.07.16 - 09:32:31
	d:\v60\arduino_v02	2015.07.16 - 09:32:24

Favorites

Recent

# Revision control using ODB++

Load PCB

Setup Compare

Component Compare

Net Compare

Data content

To get best result we define with attributes are used in the comparison process

The screenshot shows the 'Compare Jobs' dialog box in a PCB design software. The 'Options' menu is open, showing the following options:

- Partname
- Position
- Value
- Pin Connection
- Attributes** (selected)
- Refresh

The 'Attributes' sub-menu is open, showing the following attributes with checkboxes:

- Check/Uncheck all
- COMPONENT\_EAGLEVALUE\_39R
- COMPONENT\_EAGLEVALUE\_MF-MSMF050-2
- COMPONENT\_EAGLEVALUE\_NCP1117ST33T3G
- COMPONENT\_EAGLEVALUE\_10u
- COMPONENT\_EAGLEVALUE\_USB-MICRO
- COMPONENT\_EAGLEVALUE\_6k8
- COMPONENT\_EAGLEVALUE
- COMPONENT\_EAGLEVALUE\_2x2M\_-
- COMPONENT\_EAGLEVALUE\_12MHz\_KX-7
- COMPONENT\_EAGLEVALUE\_STRIP\_4x1V

The background shows the 'Compare Jobs' dialog box with the following fields:

- Active Job: cad-import
- Compared Job: cad-import
- Components: Nets
- State: Geben Sie Text h...
- Reference: Geben Sie T...

# Revision control using ODB++

Load PCB

Now we get a detailed list of all changes between the to Bill of Materials.  
The report contains component property changes and net connection changes.

Setup Compare

Component Compare

Net Compare

Data content

State	Reference	Partnumber	X	Y	Value	Nets	Attributes
different!	C10	C0402	36.576	14.935		GND, VDDANA	COMPONEN
different!	IC2	SOT23-6	82.093	13.513		BOOST, GND, F...	COMPONEN
different!	R11	R0603-ROUND	79.451	12.802		FB, GND	COMPONEN
different!	R12	R0603-ROUND	77.114	11.887		+5V, FB	COMPONEN
different!	U1	LQFP144	48.895	26.035		PIN22, TX, RXD...	COMPONEN
	ADCH	1V00	92.55	2.54		AD9, AD9, AD1	COMPONEN

Selected Item	Active Job	Compared Job
Reference	R11	R11
Part Number	R0603-ROUND	R0603-ROUND
Location	79.451 : 12.802	79.451 : 12.802
Value		
COMPONENT_EAGLEVAL...	10K	10K
Pin 1	FB	FB_P
Pin 2	GND	GND

# Revision control using ODB++

Load PCB

Setup Compare

Component Compare

Net Compare

Data content

Share the result with others through the Excel export

	A	B	C	D	E	F	G	H	I
1	State	Reference	Partnumb	Detail	Value Job 1	Value Job 2			
2	different!	C10	C0402	Location	36.576 : 14.935	36.576 : 14.95			
3	different!	IC2	SOT23-6	Pin 3	FB	FB_P			
4	different!	R11	R0603-ROUN	Pin 1	FB	FB_P			
5	different!	R12	R0603-ROUN	Pin 2	FB	FB_P			
6	different!	U1	LQFP144	Value		ATSAM3X8EA-AU			
7				Value		ATSAM3X8EA-AU			
8	equal	ADCH	1X08						
9	equal	ADCL	1X08						
10	equal	BR1	J0402						
11	equal	C1	SMC_B						
12	equal	C2	SMC B						

# Revision control using ODB++

The net list report takes care of all connections between components. Even if you changes net names you are able to do a proper revision control.

Components		Nets		
State	Netname	Netname Job2	Matches %	
Geben Sie Text h...	Geben Sie Text hier ein	Geben Sie Text hier ein	Geben Sie T...	
	ETX_CLK	ETX_CLK	100,00	
	ETX_EN	ETX_EN	100,00	
	ETXD0	ETXD0	100,00	
	ETXD1	ETXD1	100,00	
	FB	FB_P	100,00	
	GATE_CMD	GATE_CMD	100,00	

	Active Job			Compared Job		
Netnumber	38			38		
Netname	FB			FB_P		
Components	3			3		
Equal Components	R11 - 1	IC2 - 3	R12 - 2	R11 - 1	IC2 - 3	R12 - 2

Load PCB

Setup Compare

Component Compare

Net Compare

Data content



# Revision control using ODB++

Highlight the change in both designs directly from the net list report.

The screenshot displays the ODB++ software interface. The top menu bar includes 'File', 'View', and 'Options'. A yellow circle labeled '1.' highlights the 'Show compared job' option in the 'View' menu. The net list report shows the following data:

Net Name	Value	Net Name	Value
ETX_CLK	100.00	ETX_CLK	100.00
ETX_EN	100.00	ETX_EN	100.00
ETXD0	100.00	ETXD0	100.00
ETXD1	100.00	ETXD1	100.00
FB	100.00	FB_P	100.00
GATE_CMD	100.00		

A yellow circle labeled '2.' highlights the 'Go to selected net' option in the context menu. Below the net list report, two PCB layout comparisons are shown. The top layout shows the original design with components labeled 'FB'. The bottom layout shows the revised design with components labeled 'FB\_P'. The traces and component footprints are highlighted in red to show the changes.

Load PCB

Setup Compare

Component Compare

Net Compare

Data content

# Data content

Daten

Flying Probe

Bauteile

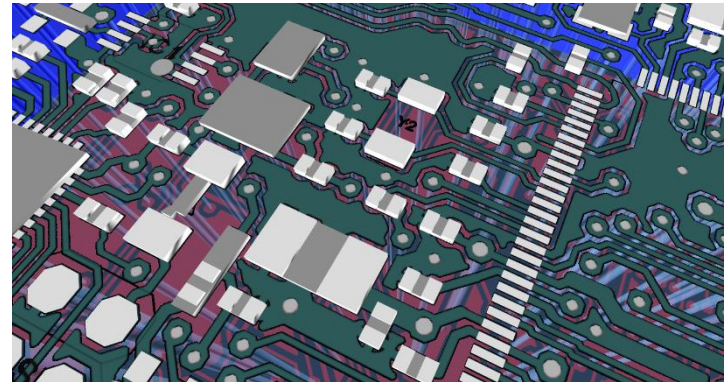
Netze PCB

Schaltung

Data content

ODB++ data content

- **Net list**
- **Part list**
- **Stack-up**
- **Physical PCB**
- **Mechanical requirements**



# www.easyLogix.de

PCB-Investigator

[www.pcb-investigator.com](http://www.pcb-investigator.com)

Native Board Import (3D Interface to CATIA, SiemensNX, SolidWorks, SolidEdge)

[www.sts-development.biz](http://www.sts-development.biz)

GerberLogix

[www.gerberLogix.com](http://www.gerberLogix.com)

Online Gerber Viewer

[www.Gerber-Viewer.com](http://www.Gerber-Viewer.com)

Software Development, CAD Converter, data connection

[www.easyLogix.de](http://www.easyLogix.de)

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