

2013 AUG 13 TAIPEI **Graser**
User
Conference

OrCAD New Enhancements

Addi

13/Aug/2013

Topic

- GraserWARE FrontendPack
 - Replace BUS Alias
 - Import/Export Properties
 - Design NC-Part Setting
 - Design Compare
 - Graser Allegro Netlist

Replace BUS Alias

- Rename BUS Alias
 - By Selection
 - By Page
 - By Design

BMS RD WR

45	BMS-
44	DSP_RD-
	DSP_WR-
21	DSP_D0
22	DSP_D1
23	DSP_D2
24	DSP_D3
25	DSP_D4
27	DSP_D5
28	DSP_D6
30	DSP_D7
31	DSP_D8
32	DSP_D9
33	DSP_D10
34	DSP_D11
35	DSP_D12
36	DSP_D13

DSP_D[0..13] ← **DSP_D[0..13]**

2105

Capture Replace Bus Alias

Find Name: DSP_A

Replace Name: DSP_D To: []

Scope:

- Replace By Selection
- Replace By Page
- Replace By Design

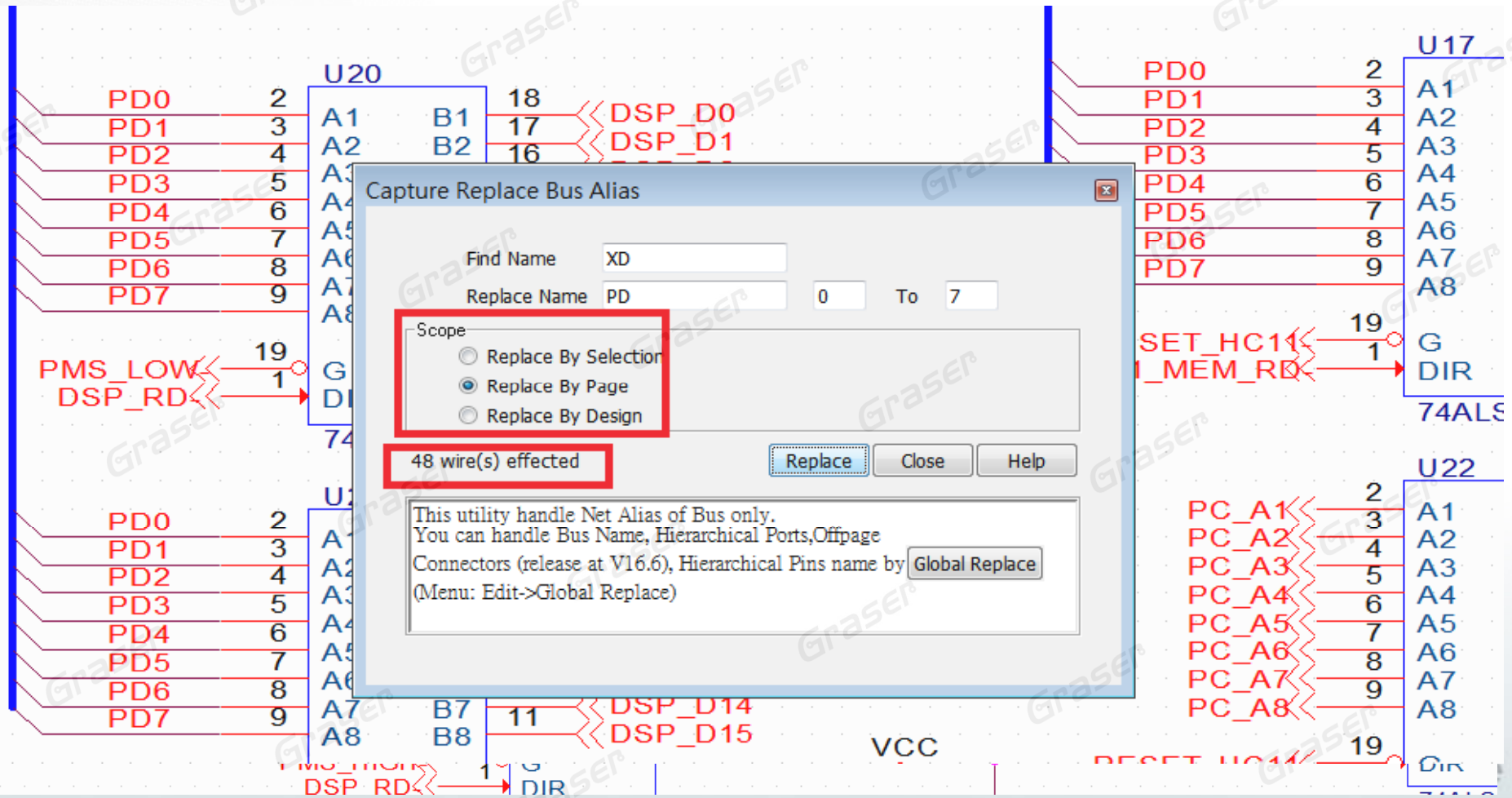
14 wire(s) effected

Replace Close Help

This utility handle Net Alias of Bus only.
You can handle Bus Name, Hierarchical Ports, Offpage
Connectors (release at V16.6), Hierarchical Pins name by Global Replace
(Menu: Edit->Global Replace)

Replace BUS Alias

- Rename BUS Alias
 - By Selection
 - By Page
 - By Design



Import/Export Part Properties

- Is the property editor in Schematic always annoying??
- Export Design Properties to Excel

The screenshot shows the 'Import & Export Property V1.0' dialog box in the foreground. The 'Design' field is set to 'D:\TestDSN\com_pare\BENCH_ALLEGRO_NEW.DSN'. The 'Mode' is set to 'Instance' and the 'Template' is 'C:\Program Files (x86)\GraserWARE\FrontendPack\graser.tpr'. The 'Scope' is 'BENCH_ALLEGRO_NEW'. In the background, the 'Property Editor' window is open, displaying a table of design properties. The table has columns for Design, ID, Page, Name, Part Reference, PCB Footprint, Value, Part Number, Tolerance, and Description. Several cells in the table are highlighted with red boxes: the 'Part Number' for row 3 (20-00045), the 'PCB Footprint' for row 6 (SMDLED), the 'Part Number' for row 7 (20-00033), and the 'PCB Footprint' for row 15 (TP20).

Design	ID	Page	Name	Part Reference	PCB Footprint	Value	Part Number	Tolerance	Description
Design	D:\TestDSN\com_pare\BENCH_ALLEGRO_NEW.DSN								
1	HEADER	ID	Page	Name	Part Reference	PCB Footprint	Value	Part Number	Description
3	PARTINST:BE3338083398:U9	A	I-956883898	U9	dip16_3	74ALS138	20-00045		IC, 74ALS138, multiplexer, Standard input, Inverted, totem output
4	PARTINST:BE3338083401:U8	A	I-956883895	U8	dip20_3	74ALS273	20-81432		IC, 74ALS273 OCTAL D POS EDGE TRIGG 20 DIP
5	PARTINST:BE3338083402:U10	A	I-956883894	U10	dip20_3	74ALS245	20-003297		IC, 74ALS245 (N)OCTL TRI-ST TRANSCVR 20DIP
6	PARTINST:BE3338083403:D1	A	I-956883893	D1	SMDLED	RA-LED	40-00017		LED Red
7	PARTINST:BE3338083404:U11	A	I-956883892	U11	plcc28	22V10	20-00033		Bipolar PLD Device
8	PARTINST:BE3338083405:U6	A	I-956883891	U6	dip16_3	7201	20-00042		FIFO Status Flag Expandable 512x9
9	PARTINST:BE3338083406:U3	A	I-956883890	U3	dip16_3	7201	20-00042		FIFO Status Flag Expandable 512x9
10	PARTINST:BE3338083407:U5	A	I-956883889	U5	dip20_3	6264	20-00062		CMOS Static RAM 8Kx8
11	PARTINST:BE3338083408:U2	A	I-956883888	U2	dip20_3	6264	20-00062		CMOS Static RAM 8Kx8
12	PARTINST:BE3338083409:U1	A	I-956883887	U1	dip20_3	6264	20-00062		CMOS Static RAM 8Kx8
13	PARTINST:BE3338083410:U4	A	I-956883886	U4	dip20_3	6264	20-00062		CMOS Static RAM 8Kx8
14	PARTINST:BE3338083411:U7	A	I-956883885	U7	dip20_3	6264	20-00062		CMOS Static RAM 8Kx8
15	PARTINST:BE3338083412:TP1	A	I-956883884	TP1	TP20	TESTPOINT	60-00038		Header, 1 row, 1 pin
16	PARTINST:BE3338083413:P1	A	I-956883883	P1	headx12x45	HEADER12	60-00037		Header, 2 row x 6 pin
17	PARTINST:BE3338083414:R2	A	I-956883882	R2	smdres	100	ERJ-2GEJ101X	5%	Carbon Film Resistor 100 OHM 1/16W 5% 0402 SMD
18	PARTINST:BE3338083415:R1	A	I-956883881	R1	smdres	100	ERJ-2GEJ101X	5%	Carbon Film Resistor 100 OHM 1/16W 5% 0402 SMD
19	PARTINST:BE3338083416:R3	A	I-956883880	R3	res400	10K	ERJ-8GEYJ103	5%	Carbon Film Resistor 10K OHM 1/8W 5% 1206 SMD

Import/Export Part Properties

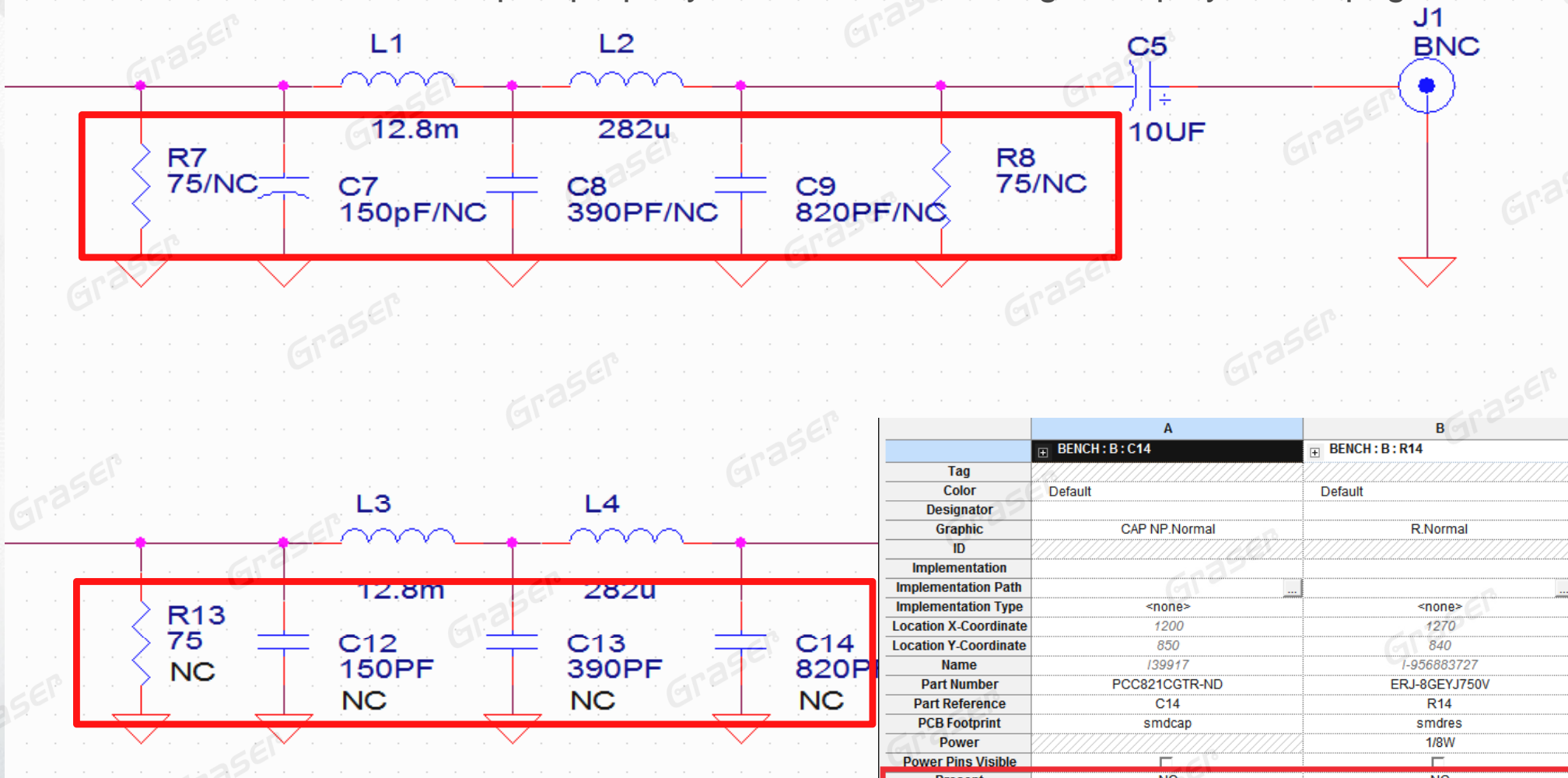
- Import Part Properties from Excel to Design

The screenshot shows a circuit design tool interface. On the left, two components are shown: U9 (74ALS138) and U11 (22V10). U9 is a 3-to-8 decoder with inputs A, B, and C, and outputs Y0 through Y7. U11 is a 10-bit counter with inputs 1 through 16 and outputs O1 through O10. The Property Editor window on the right displays the properties for three instances of these components: BENCH : A : D1, BENCH : A : U9, and BENCH : A : U11. The table below shows the properties for each instance.

	A	B	C
	<input type="checkbox"/> BENCH : A : D1	<input type="checkbox"/> BENCH : A : U9	<input type="checkbox"/> BENCH : A : U11
Tag			
Color	Default	Default	Default
Description	LED Red	IC, 74ALS138, multi	Bipolar PLD Device
Designator			
Graphic	LED1.Normal	74ALS138.Normal	22V10.Normal
ID			
Implementation	D	74ALS138	
Implementation Path
Implementation Type	Schematic View	Schematic View	<none>
Location X-Coordinate	1540	710	510
Location Y-Coordinate	850	850	1000
Name	I-956883893	I-956883898	I-956883892
Part Number	40-00017	20-00045	20-00033
Part Reference	D1	U9	U11
PCB Footprint	SMDLED	dip16_3	plcc28
Power Pins Visible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Primitive	YES	YES	YES
PSpice	D	74ALS138	
Rating	2.0V		
Reference	D1	U9	U11
Source Library	C:\WINDOWS\IT...	C:\WINDOWS\IT...	C:\WINDOWS\IT...
Source Package	LED1	74ALS138	22V10
Source Part	LED1.Normal	74ALS138.Normal	22V10.Normal
Tolerance			
Value	RA-LED	74ALS138	22V10

NC-Part Setting

- Design component sets are not present
 - Manually add strings in Value
 - Add a new field in the part property and then add a string to display on the page



	A	B
Tag	BENCH : B : C14	BENCH : B : R14
Color	Default	Default
Designator		
Graphic	CAP NP.Normal	R.Normal
ID		
Implementation		
Implementation Path
Implementation Type	<none>	<none>
Location X-Coordinate	1200	1270
Location Y-Coordinate	850	840
Name	I39917	I-956883727
Part Number	PCC821CGTR-ND	ERJ-8GEYJ750V
Part Reference	C14	R14
PCB Footprint	smdcap	smdres
Power		1/8W
Power Pins Visible	<input type="checkbox"/>	<input type="checkbox"/>
Present	NC	NC
Primitive	DEFAULT	YES
PSpice	C	R
Reference	C14	R14
Source Library	D:\ORCAD\WINV9\CAPTURE\LIBRARY\...	C:\WINDOWS\TEMP\XLLATTEMP.OLB
Source Package	CAP NP	R

NC-Part Setting

- GraserWARE NC-Part Setting
 - Simply set up part status
 - Auto Parts, increase Value string or BOM_IGNORE property and change part color
 - New BOM Export

The screenshot displays the GraserWARE interface with the 'NC-Part Export V1.1' dialog box open. The dialog box is titled 'NC-Part Export V1.1' and contains the following fields and options:

- BOM File Name:** D:/TestDSN/OCC2INST/BENCH_ALLEGRO.csv
- Template:** Graser(Graser.nct)
- Export Properties:**
 - Unselected:** Source Library, Tolerance
 - Selected:** Item, Quantity, Reference, Part Number, Pcb Footprint, Value
- Buttons:** Add, Del, Save Template As, Export, Close
- Checkbox:** Skip NC Parts (highlighted with a red box)
- Exclude Prefixes:** (separate with space)

The background shows a PCB schematic diagram with a +12V supply. Components include an inductor L2 (282u), a capacitor C7 (390PF_NC), and a capacitor C8 (820F). The capacitor C7 is highlighted in green, and the capacitor C8 is highlighted in red.

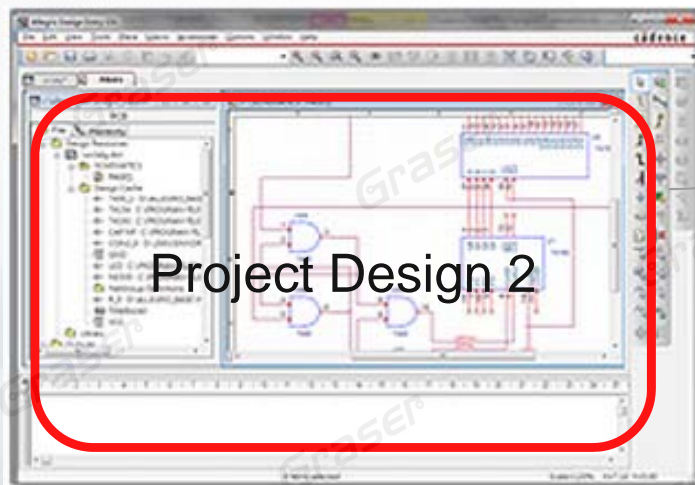
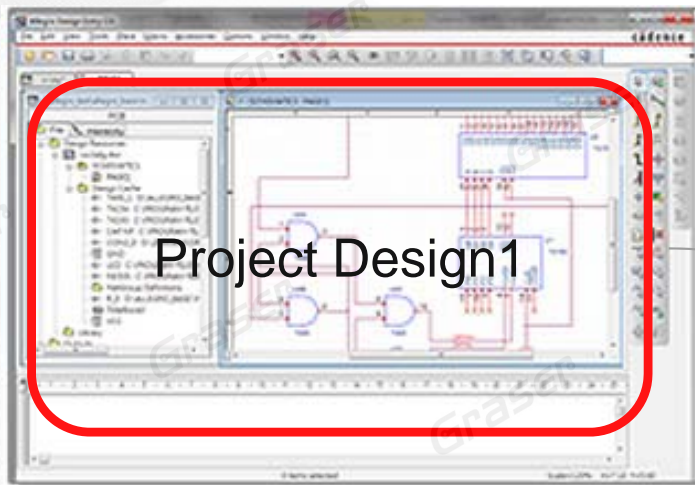
Design: BENCH_ALLEGRO.DSN

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Capture Design Compare

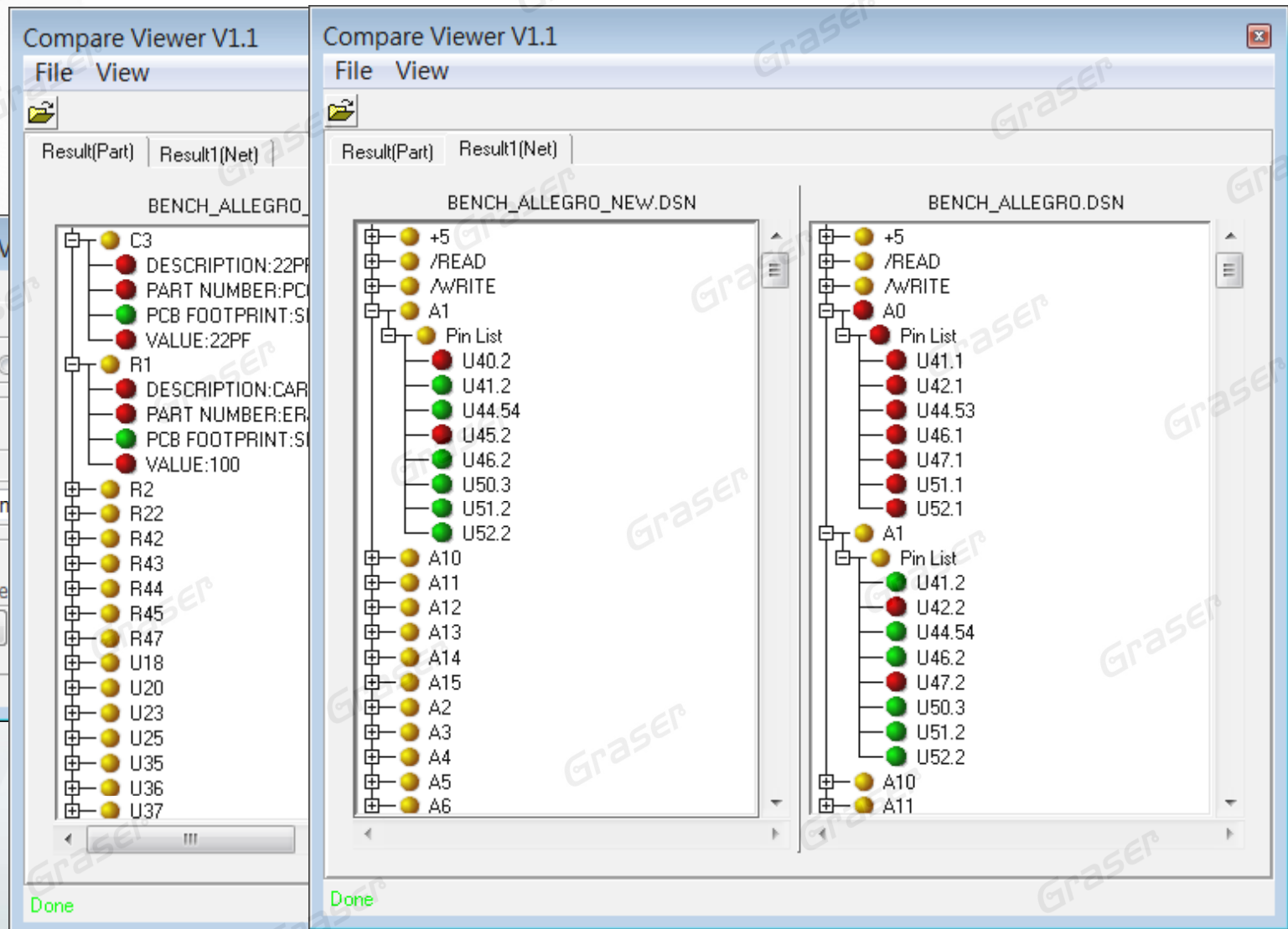
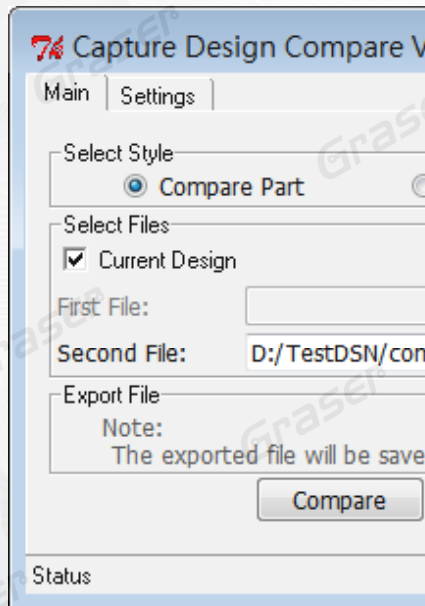
- Design version 1 and version 2

How do you know which part or Net-list is different??



Capture Design Compare

- Design Compare
 - By Part
 - By Net
 - Both



Graser Allegro Netlist

- Using the OrCAD Create Netlist, the schematic of the parts or net properties can be transferred to Allegro Board File.

