



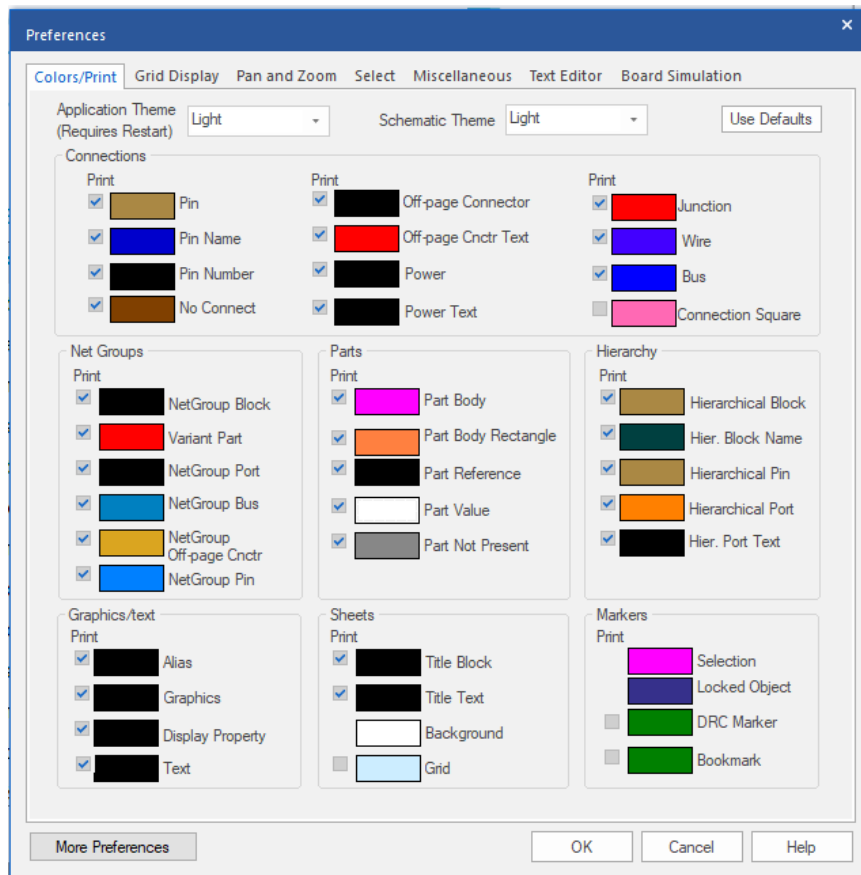
Removing “Value” to protect Intellectual Property

Removing component values from the Capture CIS to PCB Editor Flow

With the default configuration, the Component Value is one of the key fields used from a Capture CIS design to create a unique part primitive reference in the exported logic, netlist data. Users often consider the Component Value to be part of the intellectual property of their design and would prefer not to transfer this data to the PCB to send to external contractors. This App note describes how to stop the value property from being sent as part of the netlist. It also describes some of the methods to make the Value property invisible from plotters and PDF’s created from the schematic.

Hiding the Value Property for Plotting

In the design you wish to print go to Options > Preferences and on the Colors/Print tab uncheck the Print checkbox for Part Value. This would stop the value property being printed from a File > Print command. This also restricts the value from being printed using the Intelligent PDF Export option, although if you click on the part in the PDF you will still see the Value Property (along with any other properties available with the part). There is a method described in this App Note that allows you to control which properties are exported to the Intelligent PDF export file. If you also wanted the canvas in OrCAD Capture to be blank, then you can set the Part Value colour to be the same as the Background colour (in this example white). Note if the Application Theme is set to Dark you would need to adjust the Part Value colour to suit.



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Once printed the resulting PDF would show the parts but no value would be printed similar to the screenshot below.

VDDIN				7	VDDIN	
VDDOUT				8	VDDOUT	
VDDFLASH				43	VDDFLASH	
VDDIO1				13	VDDIO1	
VDDIO2				33	VDDIO2	
VDDCORE1				18	VDDCORE1	
VDDCORE2				41	VDDCORE2	
VDDPLL				48	VDDPLL	
SDR1A	1	2	R1	SDR1	12	PA20
SDR2A	1	2	R2	SDR2	11	PA19
SDR3A	1	2	R3	SDR3	10	PA18
SDR4A	1	2	R4	SDR4	9	PA17
SDR5A	1	2	R5	SDR5	14	PA16
SDR6A	1	2	R6	SDR6	15	PA15
SDR7A	1	2	R7	SDR7	16	PA14
					17	PA13
					19	PA12
					20	PA11
					21	PA10
					22	

Netlist Restriction

Setting the Device in the CIS database

If the components have a Device property attached, this will be used as the primitive name for the netlist data instead building a primitive name from the Component Definition Properties listed in the allegro.cfg. The Device property MUST be unique for each component of a specific type and value. Create a new CIS database field in the database tool of choice (MS SQL, MS Access, MS Excel for example) and then transfer this to the design using the CIS database configuration. Examples of this might be RES001, RES002, CAP001, CAP002 or even use the company part number (which will be unique but is not recognisable to an external organisation).

	A	B	C
	<input type="checkbox"/> SCHEMATIC1 : PAGE1	<input type="checkbox"/> SCHEMATIC1 : PAGE1	<input type="checkbox"/> SCHEMATIC1 : PAGE1
Color	Default	Default	Default
Designator			
Device	RES001	RES002	RES003
Graphic	RES.Normal	RES.Normal	RES.Normal
ID			

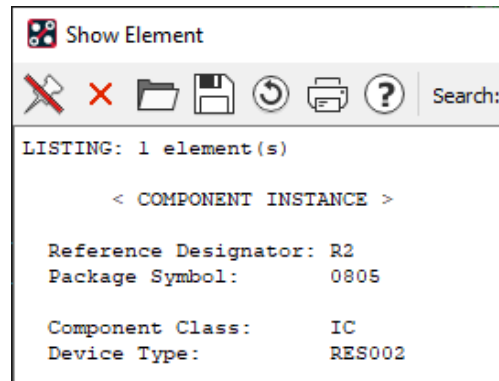
Removing the Value from the netlist data

For default usage the allegro.cfg file controls which properties are transferred from the schematic to the PCB. At this point, the default allegro.cfg still contains a "VALUE=YES" statement so the component value will be transferred as a Component Definition Property and will still be available in the PCB data. To stop this take a copy of the default allegro.cfg file which is normally located in <your_install_dir>\Tools\Capture directory where <your_install_dir> is normally C:\Cadence\SPB_XX.X, and place it in the %HOME%\cdssetup\OrCAD_Capture directory, %HOME% is typically set to C:\SPB_Data but may have been set to a different location when the products were installed. Then open the copied allegro.cfg file and remove the "VALUE=YES" line from it and save the modified file.

```
allegro.cfg - Notepad
File Edit Format View Help
[[ComponentDefinitionProps]
ALT_SYMBOLS=YES
CLASS=YES
PART_NUMBER=YES
TOL=YES
VALUE=YES
POWER_GROUP=YES
SWAP_INFO=YES
CDS_FSP_FPGA_SYMBOL=YES
ASI_MODEL=YES
```

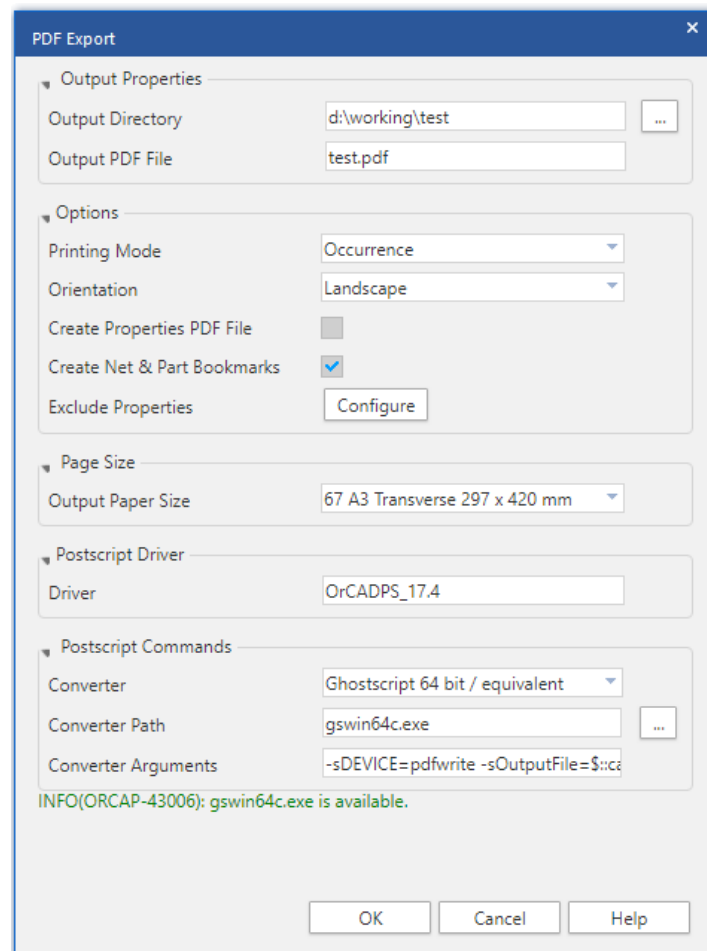
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When the netlist is subsequently generated, the primitive value will be taken from the Device property and not the Value property meaning there will be no "Value=" attached to the components in the netlist.



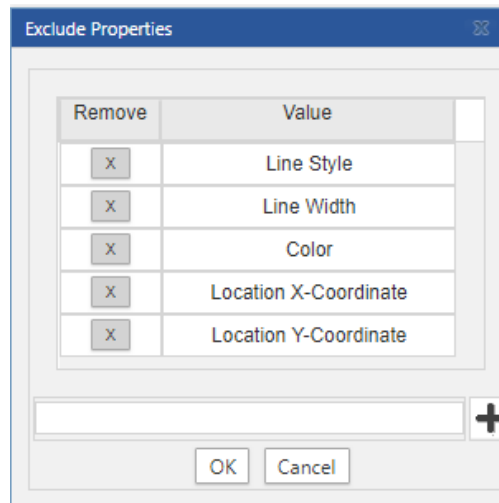
Intelligent PDF Properties

The Intelligent PDF Export allows users to create an Intelligent PDF that has all the properties available in the OrCAD Capture property editor. In instances where you wish to restrict certain properties from being embedded in the Intelligent PDF file you can define which properties are available. To do this when you choose File > Export > PDF

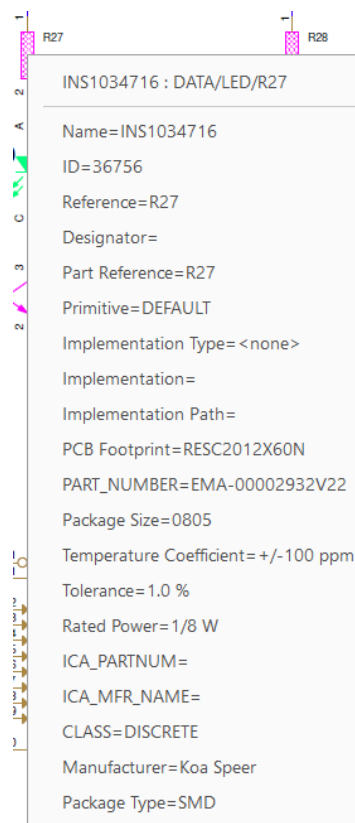


Choose the Configure button next to Exclude Properties which will show the following screen:-

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Enter the name of the property you wish to exclude (like Value) and press the + which adds the property to the list of excluded properties. Click OK when the list is complete and OK in the PDF Export form to generate the intelligent PDF. Any properties in the list will not be available in the PDF file.



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