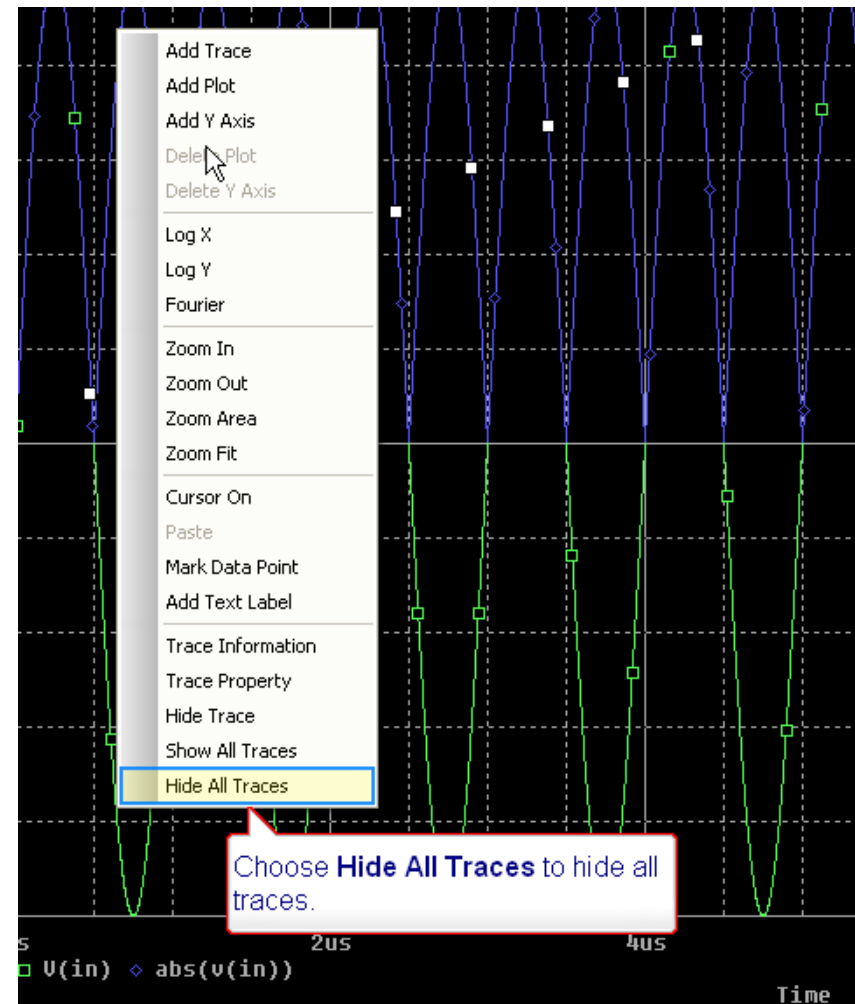


What is new in 16.3 PSpice

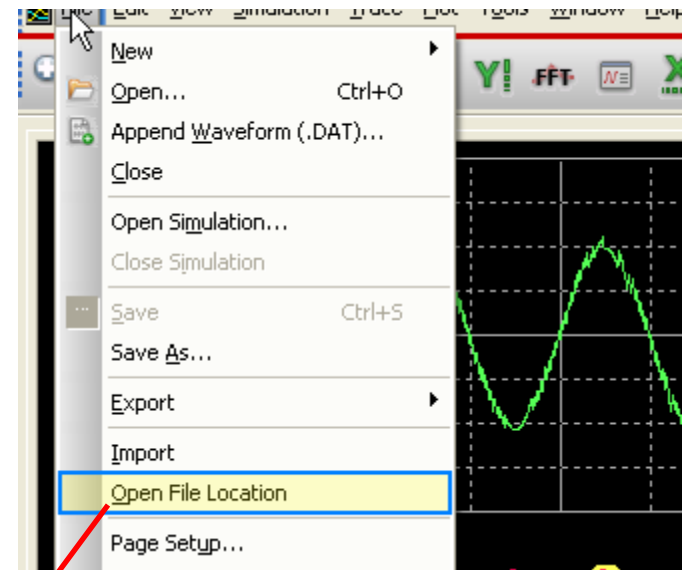
Probe Window

- Performance improvement in .dat file load
- Enhanced RMB driven actions
- Hide/unhide traces



Probe Dat File

- Directly open <dat-file> location for easy access of files

A screenshot of a Windows file explorer window. The address bar shows the path: E:\TRO09\Design\custom_deration\rfamp\rf_amp-PSpiceFiles\schematic1\tran. The file list contains the following items:

Name	Size	Type	Date Modified
smoke.lst	35 KB	LST File	7/1/2009 2:21 PM
smoke.rsl	8 KB	RSL File	7/1/2009 2:21 PM
tran.IOP	1 KB	IOP File	7/1/2009 2:17 PM
tran.cir	1 KB	PSpice Circuit File	7/1/2009 2:17 PM
Tran.dat	2,968 KB	PSpice Circuit File	7/1/2009 2:17 PM
tran.mif	1 KB	Adobe FrameMaker ...	7/1/2009 2:17 PM
tran.mrk	8 KB	MRK File	7/1/2009 2:02 PM
Tran.out	10 KB	PSpice Simulation O...	7/1/2009 2:17 PM

Probe Customization

- PSpice circuit and out file syntax highlights:
 - Text
 - Numbers
 - Comments
 - Expressions
 - Operator
 - Keywords
- Easy to edit

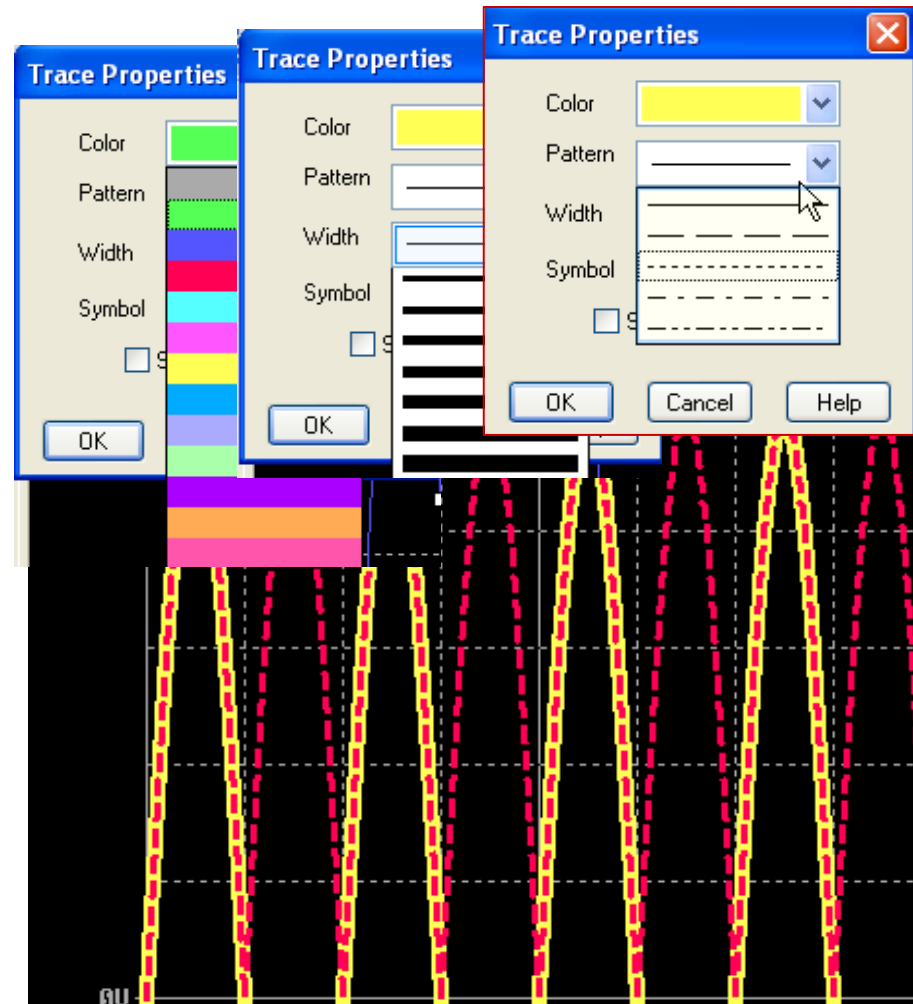
```

014  ** Creating circuit file "tran.cir"
015  ** WARNING: THIS AUTOMATICALLY GENERATED FILE MA
016
017  *Libraries:
018  * Profile Libraries :
019  * Local Libraries :
020  * From [PSPICE NETLIST] section of E:\OrCAD\OrCA
021  .lib "E:\OrCAD\OrCAD_16.2\tools\pspice\library\r
022
023  *Analysis directives:
024  .TRAN  0 10us 0 1n
025  .OPTIONS EXPAND
026  .OPTIONS LIBRARY
027  .PROBE V(*) I(*) W(*) D(*) NOISE(*)
028  .INC  "...SCHEMATIC1.net"
029
030
031
032  **** INCLUDING SCHEMATIC1.net ****
033  * source RF_AMP
034  R_R8      0 Q1E  3.3 TC=0,0
035  C_C4      0 Q2E  10u  TC=0,0
036  R_R2      N00548 N19831  3k TC=0,0
037  V_V2      IN 0 DC 0 AC 1 Sin(0 5m 1Meg)
038  R_R9      0 LOAD  50 TC=0,0
039  R_R5      IN N69662  50 TC=0,0
040  C_C3      N47850 LOAD  .47u  TC=0,0
041  C_C7      N665060 N47850  .47u  TC=0,0
042  X_Q2      N73489 N00548 Q2E awb2n3905 PARAMS:
043  +
044  STATE=1
045  X_D1      +VCC N19831 awb1n4148 PARAMS:
046  R_R7      N47850 Q2E  270 TC=0,0
047  C_C1      0 N73489  0.01u  TC=0,0
048  R_R1      N00548 N73489  24k TC=0,0
049  V_V1      +VCC 0 15VDC
050  C_C6      N69662 N00548  .47u  TC=0,0
051  X_Q1      N47850 N00548 Q1E awb2n5179 PARAMS:
052  +
053  STATE=1
054  R_R4      N00548 N665060  470 TC=0,0
055  R_R3      0 N00548  6.8k TC=0,0
056  R_R6      Q2E +VCC  3k TC=0,0
057
058  **** RESUMING tran.cir ****
059  .END

```

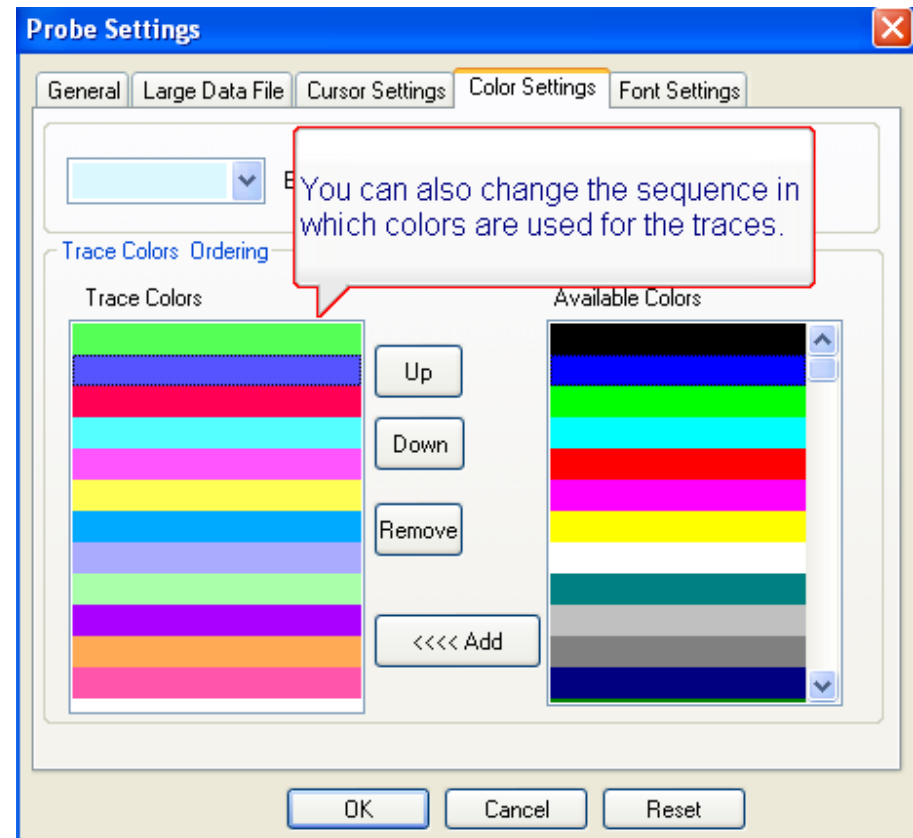
Probe Customization

- Enhanced trace properties
 - Color
 - Thickness
 - Pattern control
 - More variants



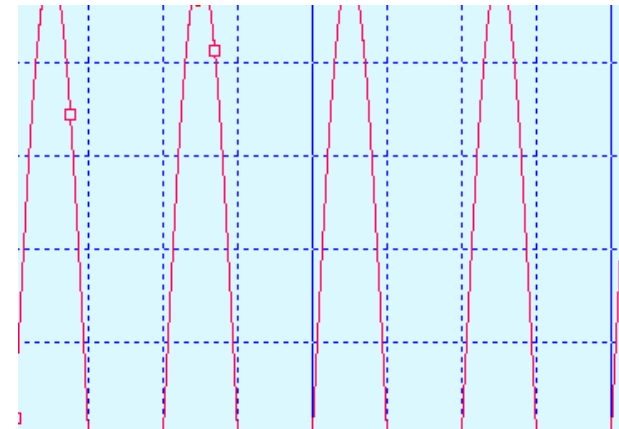
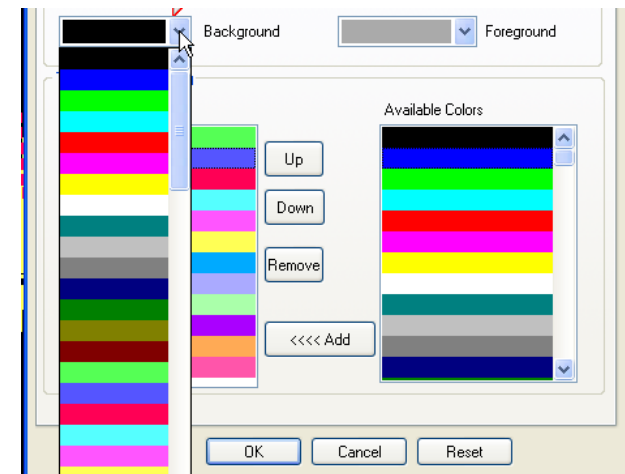
Probe Customization

- Enhanced trace properties
 - Ability to choose color-palette for auto-rotation of trace colors



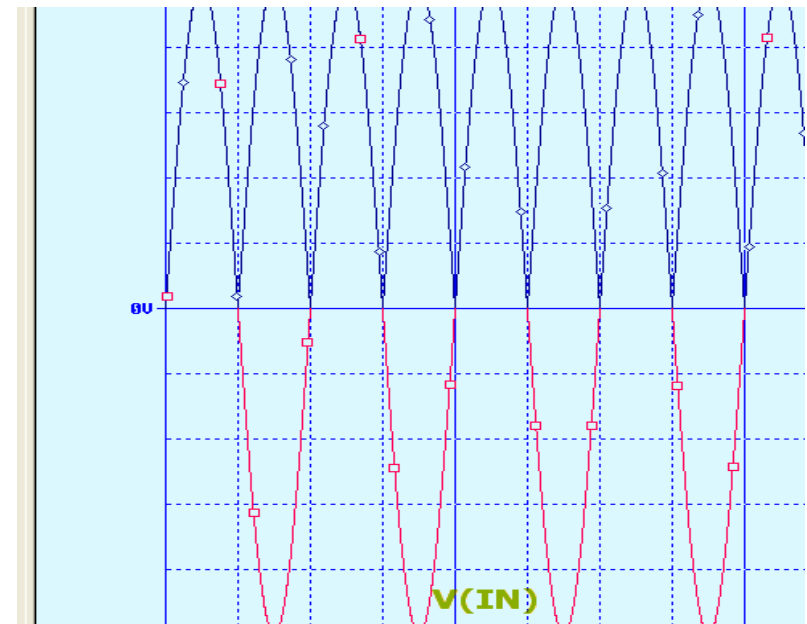
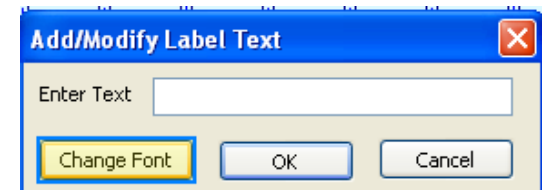
Probe Customization

- Color control for:
 - Background
 - Foreground
- Better printability



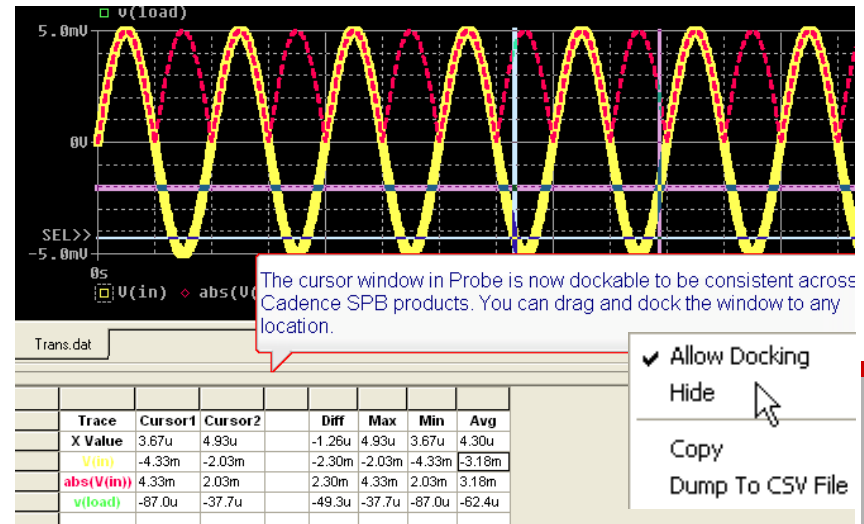
Probe Customization and Font Labels

- Font support for labels
 - Multiple fonts (True Type)
 - Ability to set defaults
 - Ability to change per font



Probe Cursor Appearance

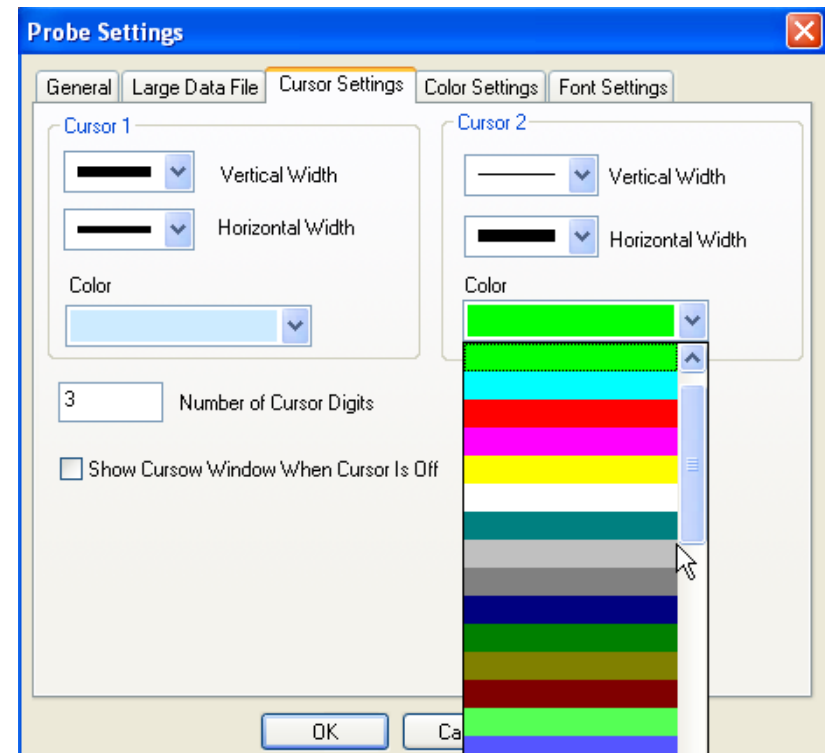
- New cursor window to show measurements
 - Dockable cursor grid-view
 - X-Y values shown in color
 - Export cursor values to csv file
 - Copy-paste from grid-view



	A	B	C	D	E	F	G
1	Trace	Cursor1	Cursor2	Diff	Max	Min	Avg
2	X Value	3.67u	4.93u	-1.26u	4.93u	3.67u	4.30u
3	V(in)	-4.33m	-2.03m	-2.30m	-2.03m	-4.33m	-3.18m
4	abs(V(in))	4.33m	2.03m	2.30m	4.33m	2.03m	3.18m
5	v(load)	-87.0u	-37.7u	-49.3u	-37.7u	-87.0u	-62.4u
6							
7							

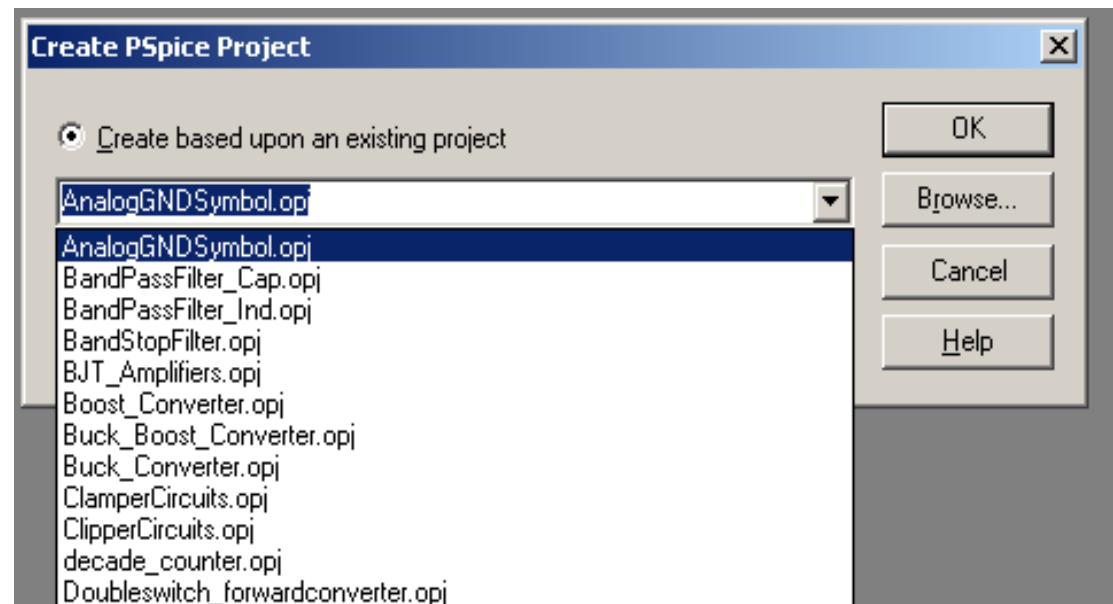
Probe Cursor Appearance

- Ability to place cursors on multiple traces
 - Thickness/color control of cursors
 - Cursors across plots
 - Cursors across multiple traces



Design Templates

- Good starting point for designer
- Good for learning
- Quick initial setup



Design Templates Analog Circuits

Filters

- Low Pass Filter (Capacitive and Inductive LPF)
- High Pass Filter (Capacitive and Inductive HPF)
- Band Pass Filter (Capacitive and Inductive BPF)
- Band Stop Filter
- Resonant Filter (Parallel LC BPF Parallel LC BSF Series LC BPF Series LC BSF)

BJT Amplifiers (bipolar junction transistor)

- Common Emitter (CE) BJT Amplifiers
- Common Collector (CC) BJT Amplifiers
- Common Base (CB) BJT Amplifiers

Design Templates Analog Circuits

Basic Electronics Circuits

- Op-Amp based differentiator and integrator
- Clipper circuits
 - Negative peak clipper
 - Symmetrical clipper
- Clamper circuits
 - Positive peak clamper
 - Negative peak clamper
- Zener diode circuits
 - Voltage regulator
 - Voltage clipper

Voltage Multipliers

- Half wave voltage doubler
- Full wave voltage doubler

Design Templates SMPS Circuits

DC-DC Converters

- Buck
- Boost
- Buck-Boost
- Flyback
- Single switch forward converter
- Double switch forward converter

Design Templates Digital Circuits

Counters

- Mod-10
- Ring
- Ripple
- Ripple-Down
- Up-Down
- Johnson
- Decade

Shift Registers

- Left-Right
- Parallel in-serial out
- Serial in-parallel out

New PWM Models

Synchronous PWM buck controllers

- MAX 8576
- MAX 8577
- MAX 8578
- MAX 8579

High Speed PWM controller

- UC 1823
- UC 1823A
- UC 2823B
- UC 3841

High Speed PWM Controller: Full bridge controllers

- UC 3825
- UC1825_SP
- UC1825A_SP
- UC2825A_EP
- UC2825A_Q1

New Vendor Library

- Analog Devices
 - 213 models for low quiescent current, CMOS linear regulators
- Taiwan Semiconductor
 - 74 Models of zener voltage regulators
- Fagor
 - 37 models of glass passivated zener diodes



FlowCAD