



# **Bartels AutoEngineer® HighEnd Advantages and Features**

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This document contains illustrated information about significant features of **Bartels AutoEngineer HighEnd**.

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**Bartels AutoEngineer HighEnd Advantages and Features**

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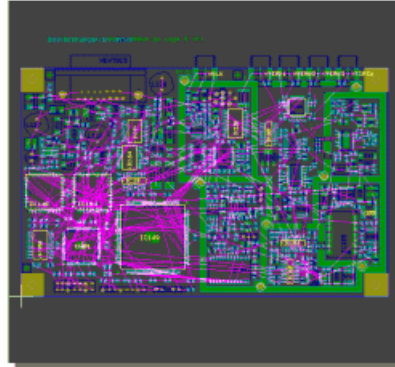
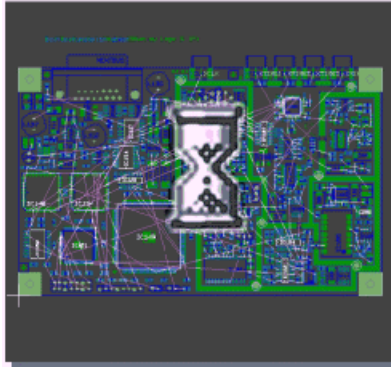
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### Mincon Generation (Airline Calculation)

delay in BAE Professional

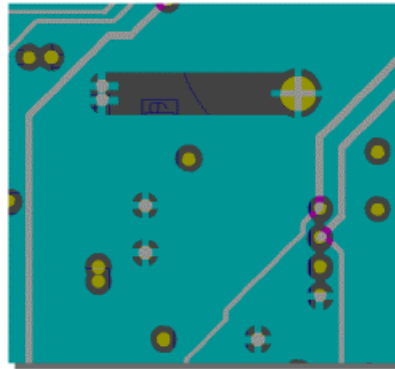
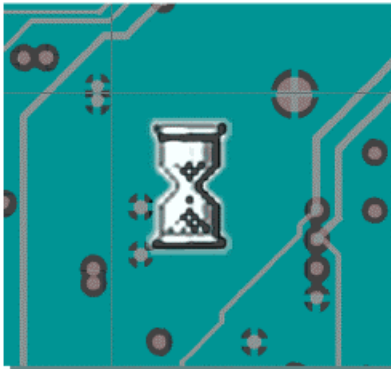
instant response in BAE HighEnd



### Power Signal Structure Processing

deleting power signal area  
in BAE Professional

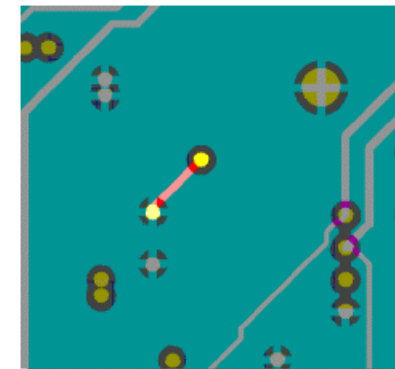
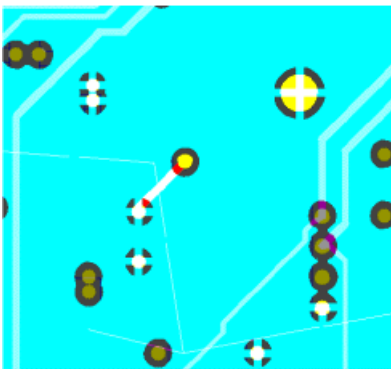
deleting power signal area  
in BAE HighEnd



### Short-Circuit Display

highlighting all short-circuit net elements  
in BAE Professional

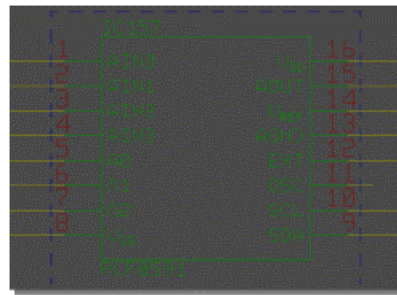
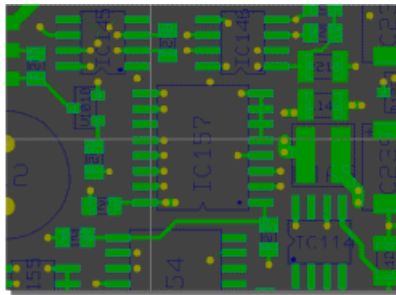
selective short-circuit highlight  
in BAE HighEnd



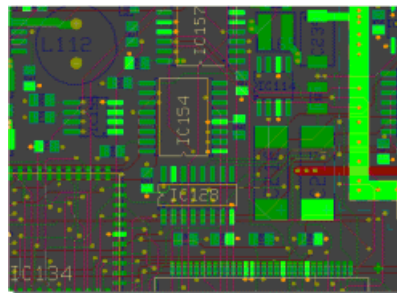
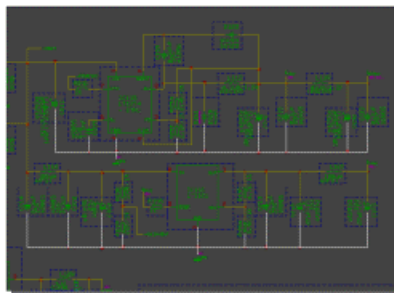
### Part Search

layout part selection...

...and automatic zoom to SCM symbol



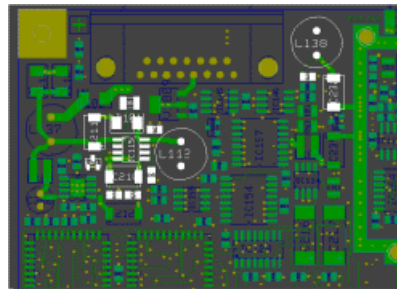
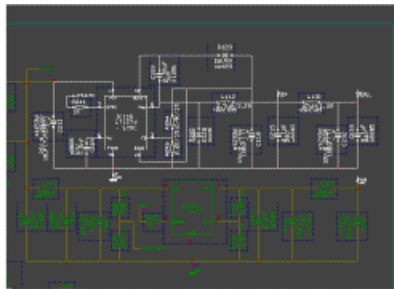
### Simultaneous Net Highlight in Schematics and Layout (Cross-Probing)



### Group Selection Transfer

SCM symbol group selection...

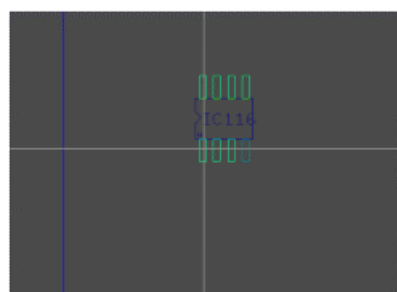
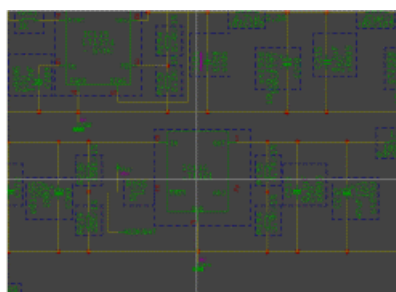
...to select corresponding layout parts



### Physical SCM Parts Placement

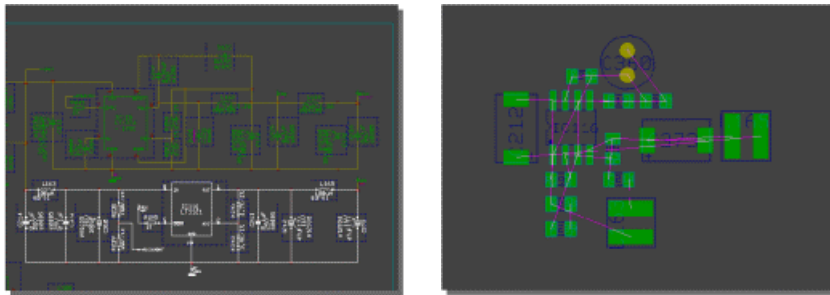
select SCM symbol...

...and place corresponding layout part

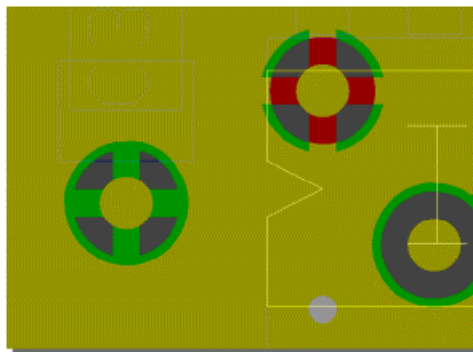


### Select Layout Placement Part Sets from SCM Symbol Groups

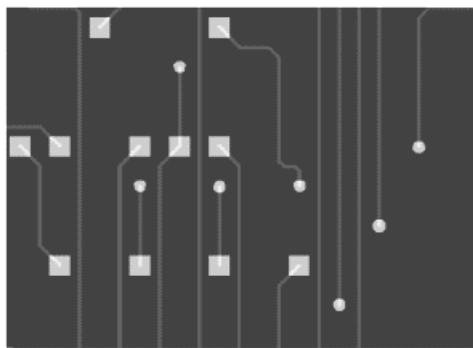
group-select SCM symbols and... ...autoplace corresponding layout part set



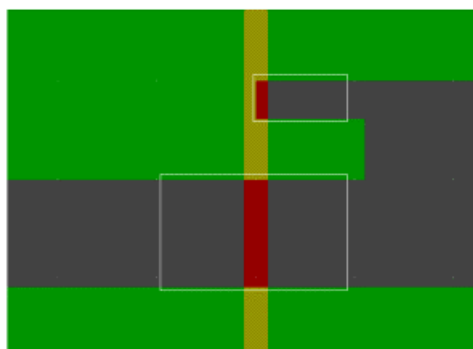
### Layer-specific Clearance Settings for DRC and Automatic Copper Fill



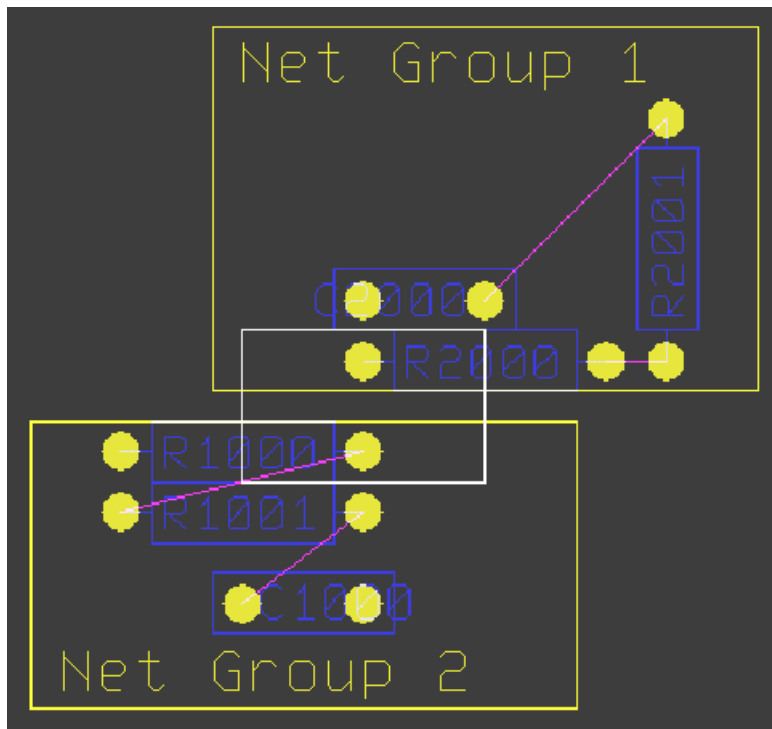
### CAM Processor to suppress output of unused inside layer pads



### Checking high-frequency Net Shielding through minimum Ground Plane Intersection



### Net Group Clearance Check



### Layout Layer Stackup Definition, e.g. for Impedance Calculations

Layer	Epsilon r	tan delta	Metal (um)	Isolation (um)	Surface	Ground
Signal Layer 1	4.5	0.02	70.0	300.0	Cu	<input type="checkbox"/>
Signal Layer 2	4.5	0.02	70.0	300.0	Cu	<input type="checkbox"/>
Signal Layer 3	4.5	0.02	70.0	300.0	Cu	<input type="checkbox"/>
Power Layer 1	4.5	0.02	70.0	300.0	Cu	<input type="checkbox"/>
Power Layer 2	4.5	0.02	70.0	300.0	Cu	<input type="checkbox"/>
Signal Layer 4			70.0		Cu	<input type="checkbox"/>

Buttons: OK, Abort, Add, Delete, Move, Material

### Dialog for Net Group DRC Assignments

lv	std
hv : 2	1
lv :	0

Buttons: OK, Abort

### Layout Group Autoplacement according to Schematics

