

Allegro Introduction

-----Channel Partner **COMTECH 科通**



内容提要

- **PCB Editor 设计环境和设置**

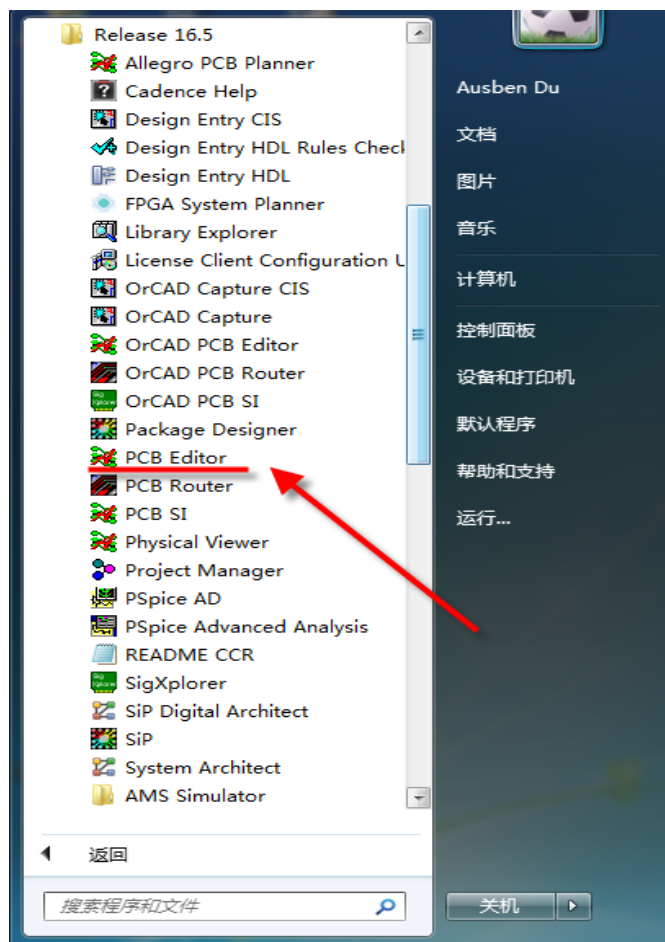
- Allegro SPB工作界面
 - ✓ 产品说明及选项面板
- Allegro SPB参数设置
- Allegro SPB环境设置

- **PCB 设计前处理**

- 导网表
 - ✓ 库路径设定
 - ✓ Capture网表调入
 - ✓ 第三方网表
- 建立板框
 - ✓ 手动绘制
 - ✓ DXF导入/导出
- 禁布区设置

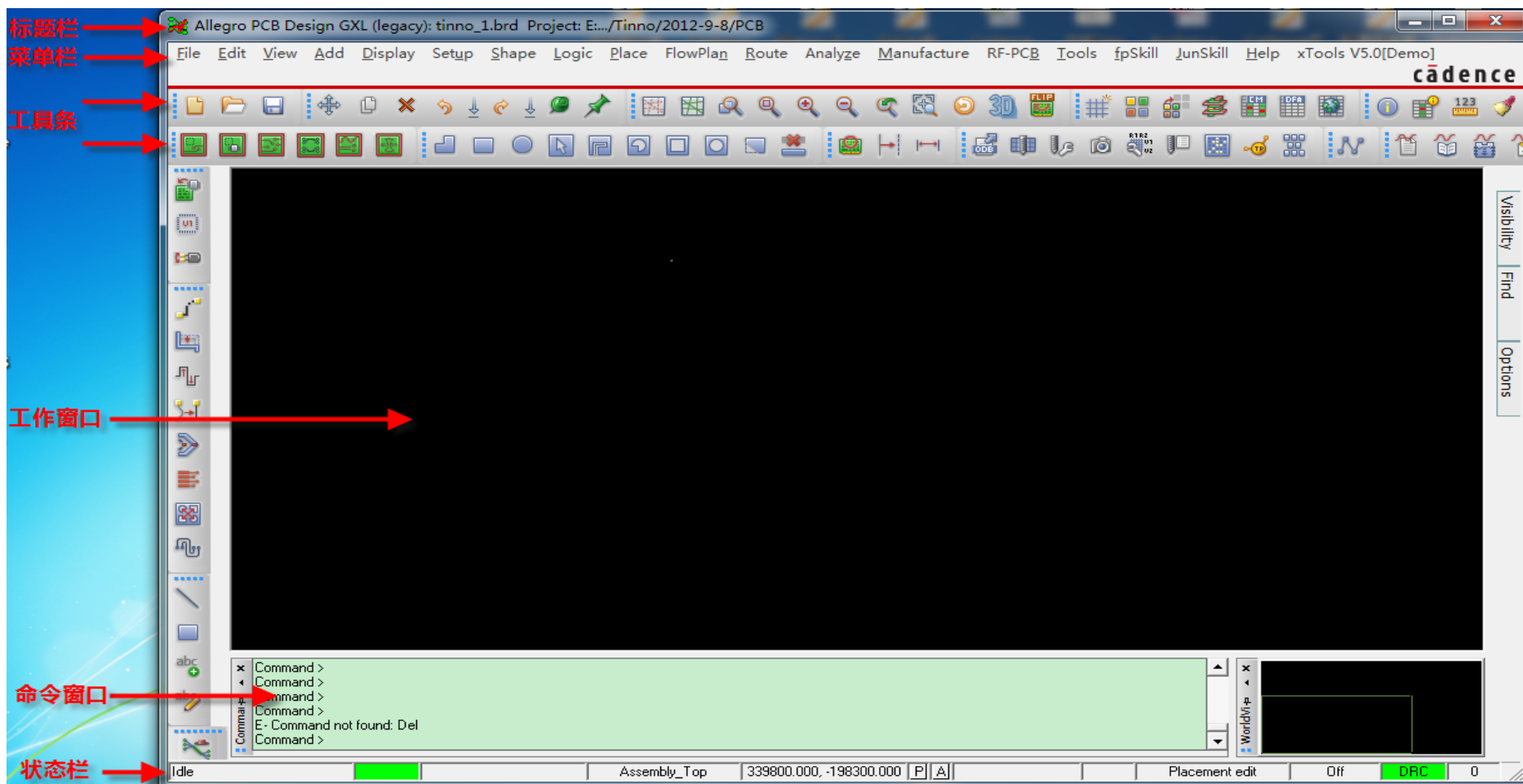
PCB Editor 设计环境和设置——工作界面

- Allegro SPB 工作界面与产品说明
 - 打开PCB Editor



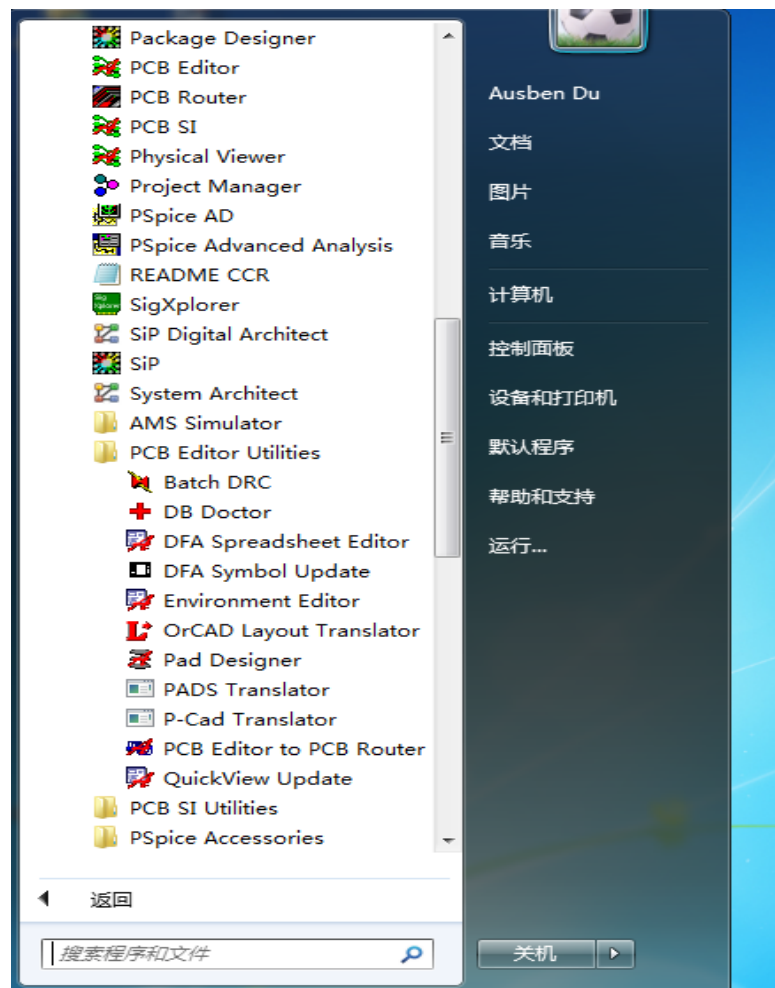
PCB Editor 设计环境和设置——工作界面

– PCB Editor工作界面



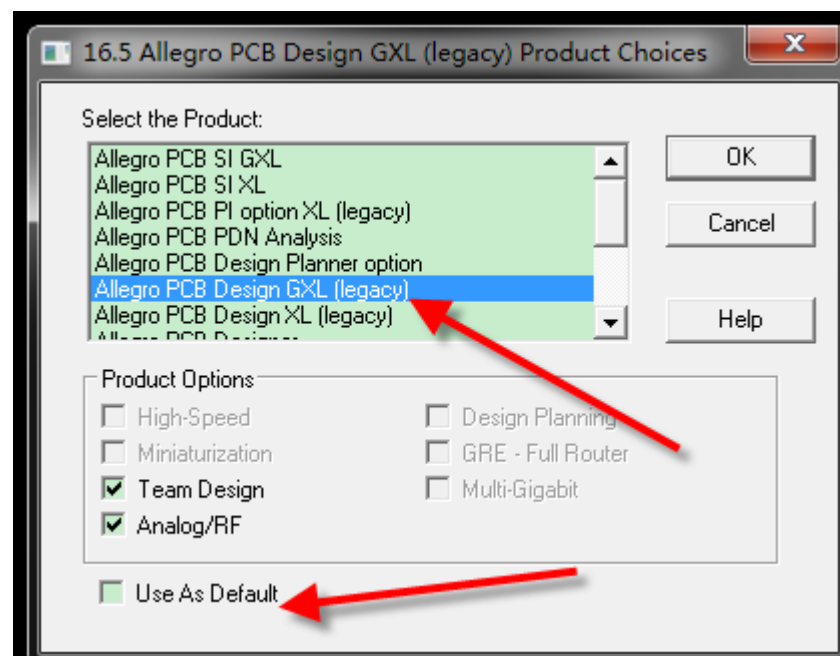
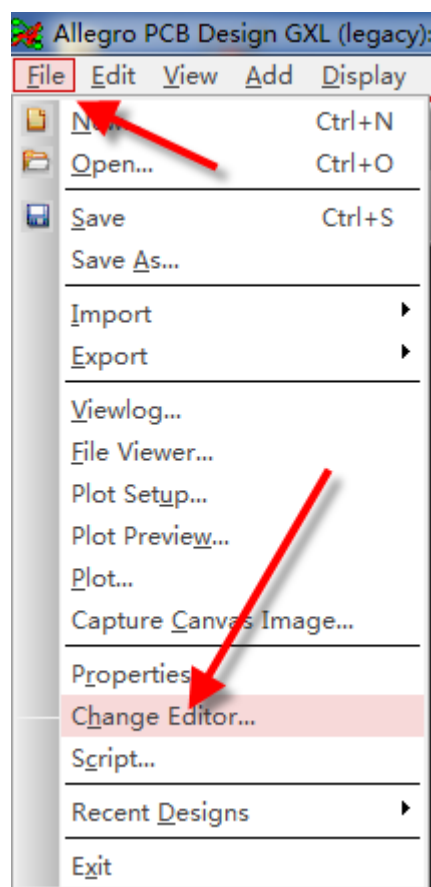
PCB Editor 设计环境和设置——工作界面

- Allegro SPB 工作界面与产品说明
 - 其他主要工具



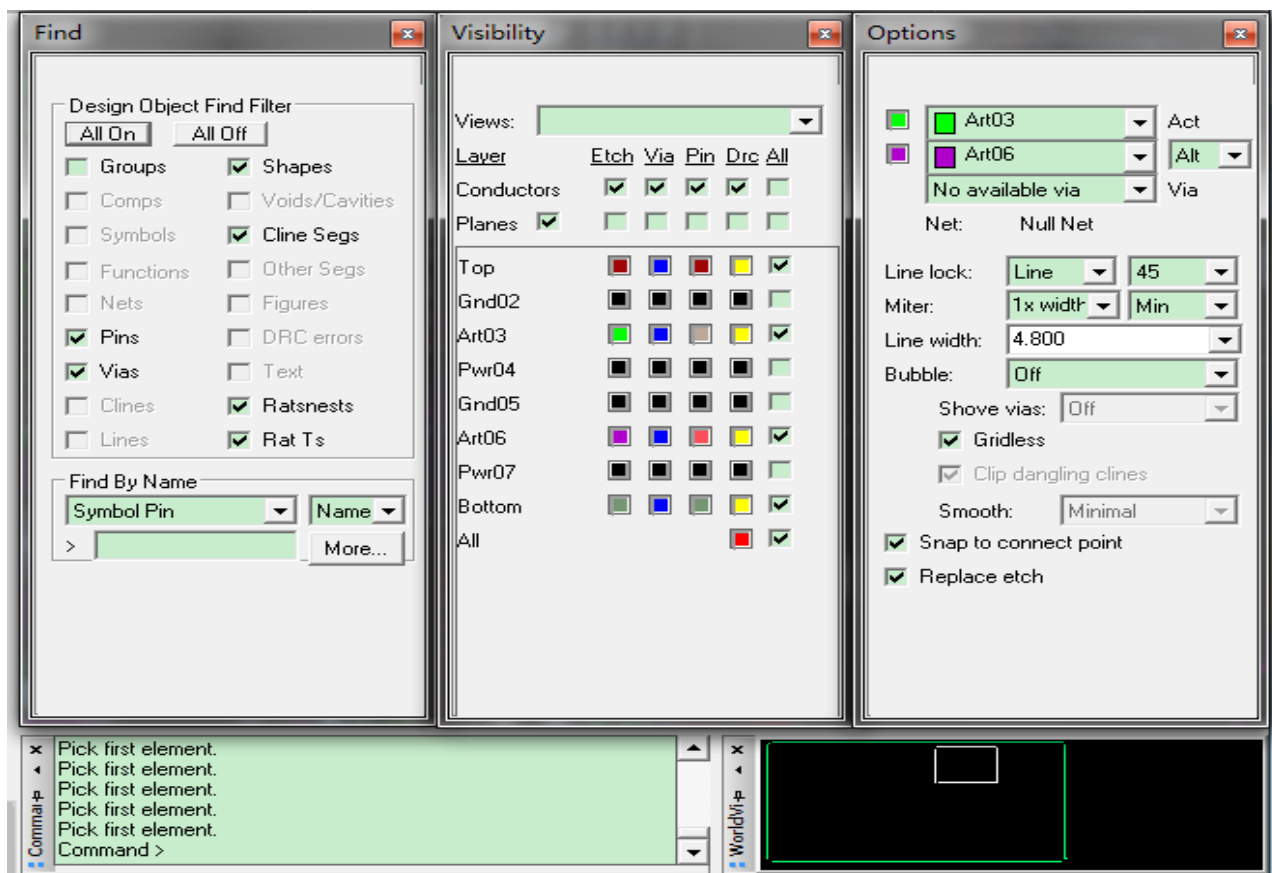
PCB Editor 设计环境和设置——工作界面

- Allegro SPB 工作界面与产品说明
 - Cadence Allegro 产品选择



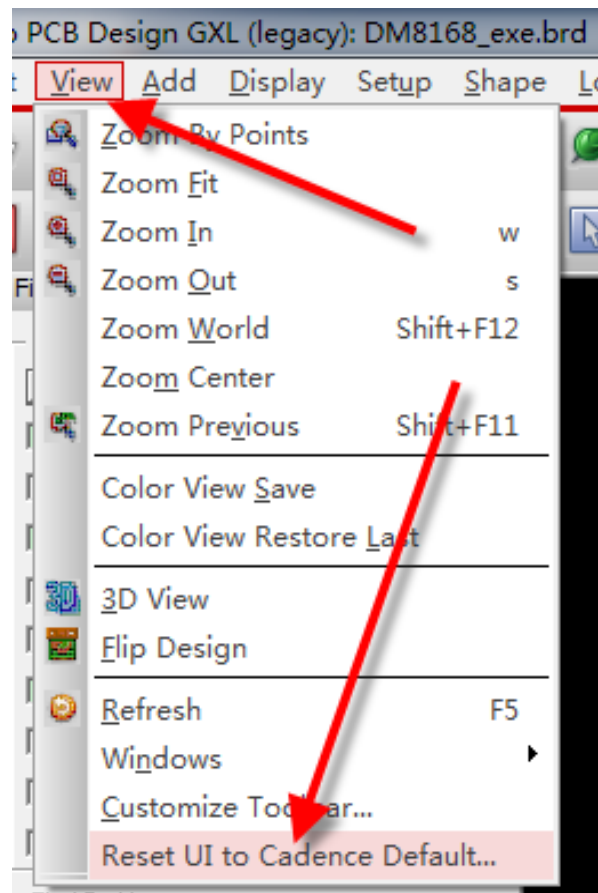
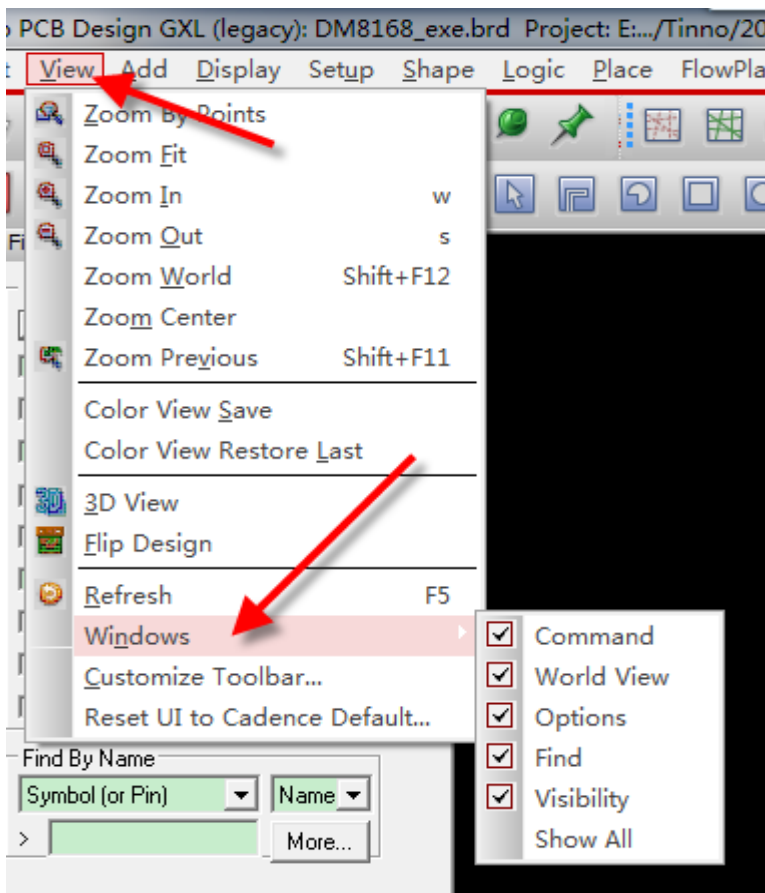
PCB Editor 设计环境和设置——工作界面

- Allegro SPB 选项面板
 - 5个可折叠式选项卡



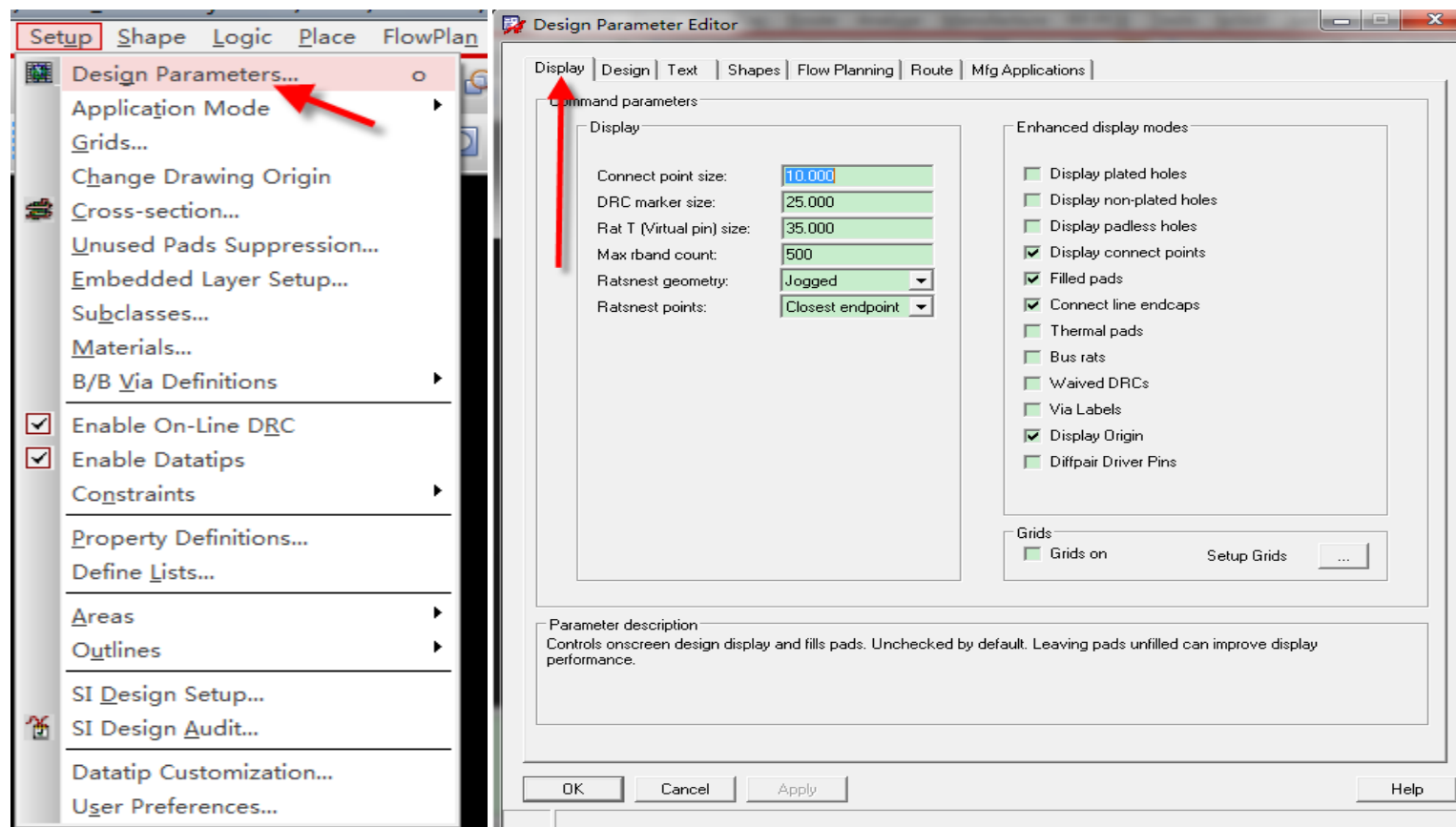
PCB Editor 设计环境和设置——工作界面

- Allegro SPB 选项面板
 - 关闭、打开、重置选项卡



PCB Editor 设计环境和设置——参数设置

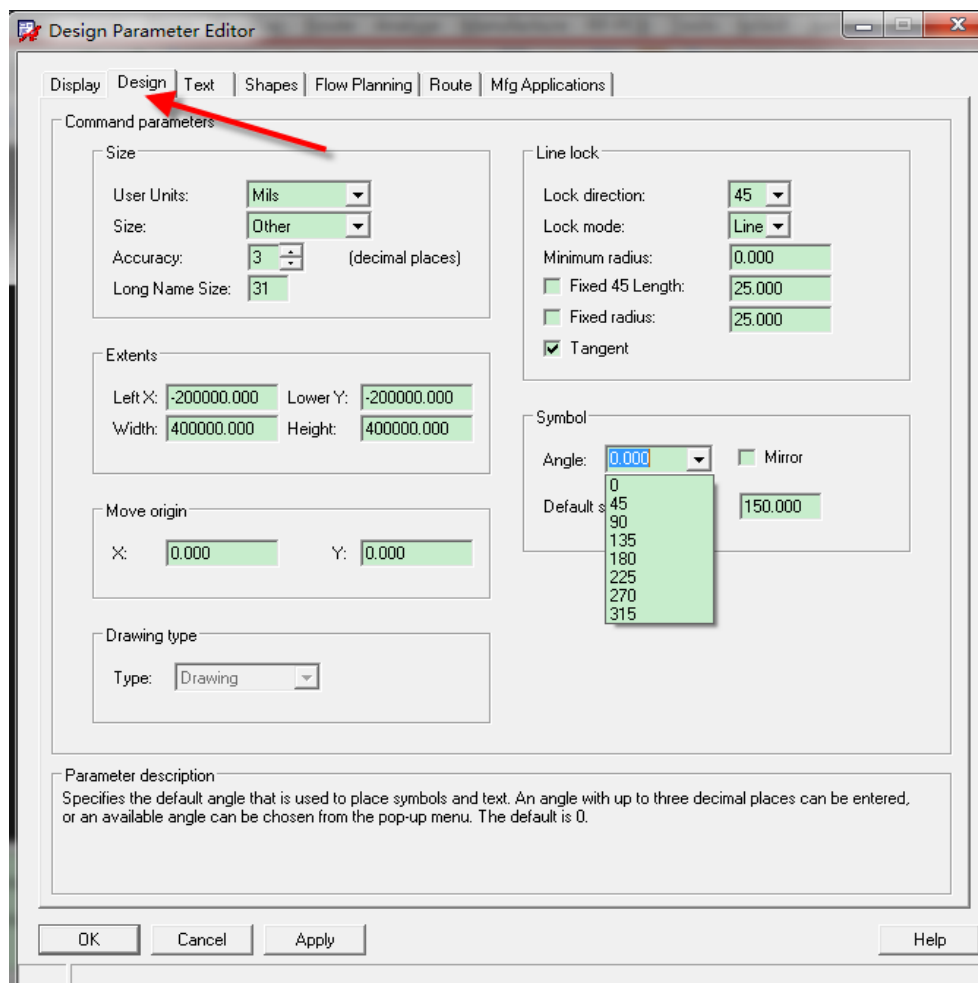
- Design Parameter
 - Display选项卡



PCB Editor 设计环境和设置——参数设置

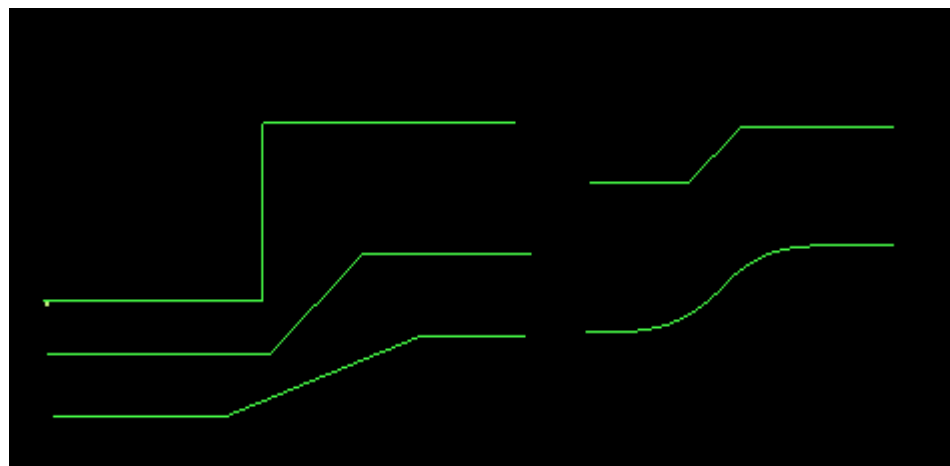
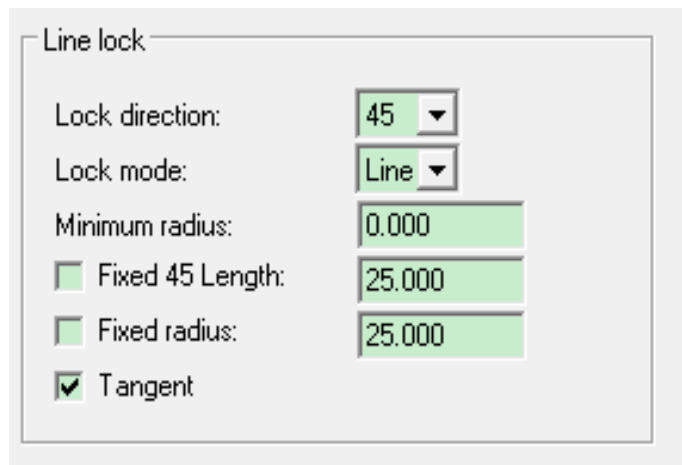
- Design Parameter

- Design选项卡



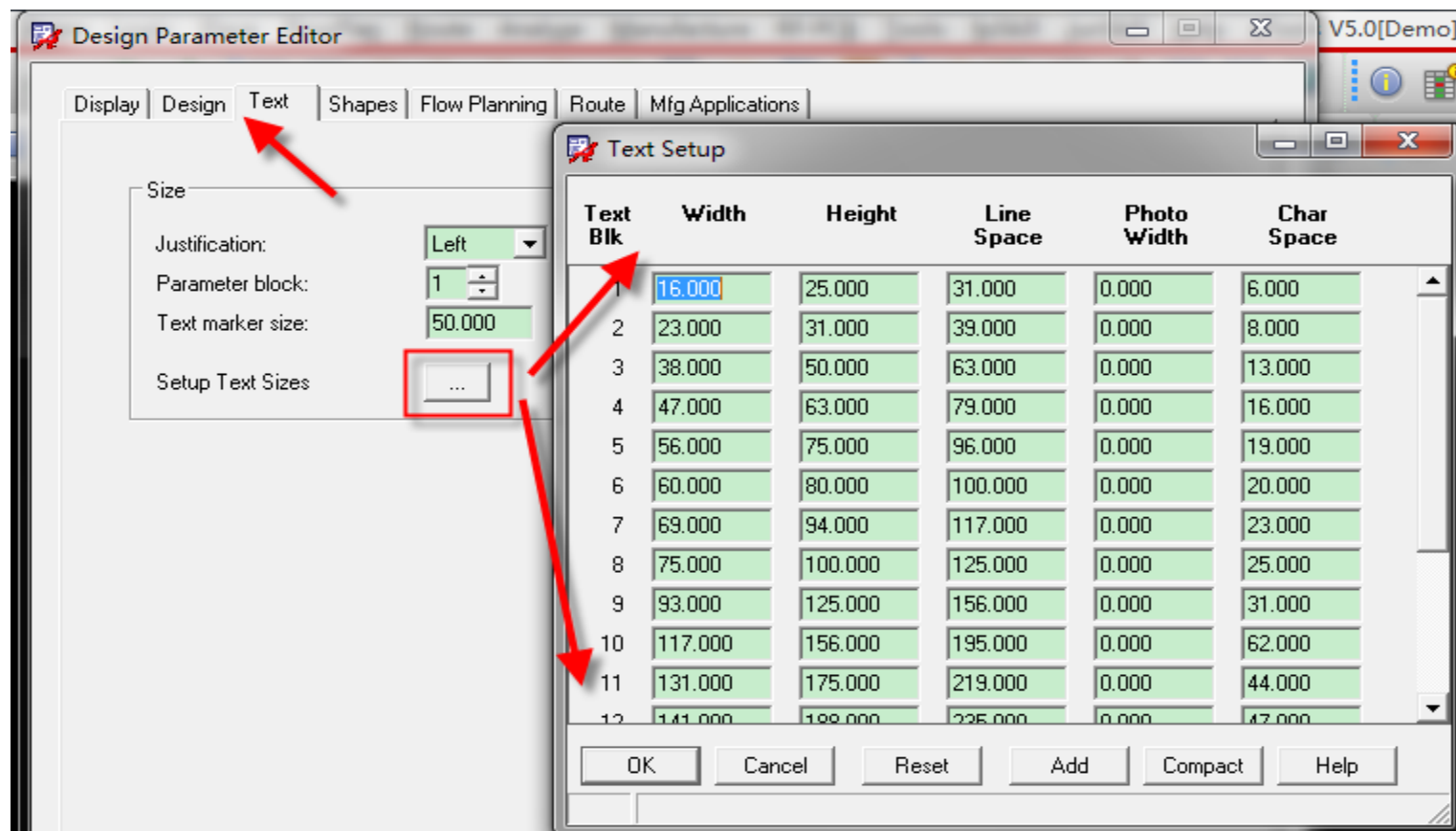
PCB Editor 设计环境和设置——参数设置

- **Design Parameter**
 - **Design** 下面的布线选项



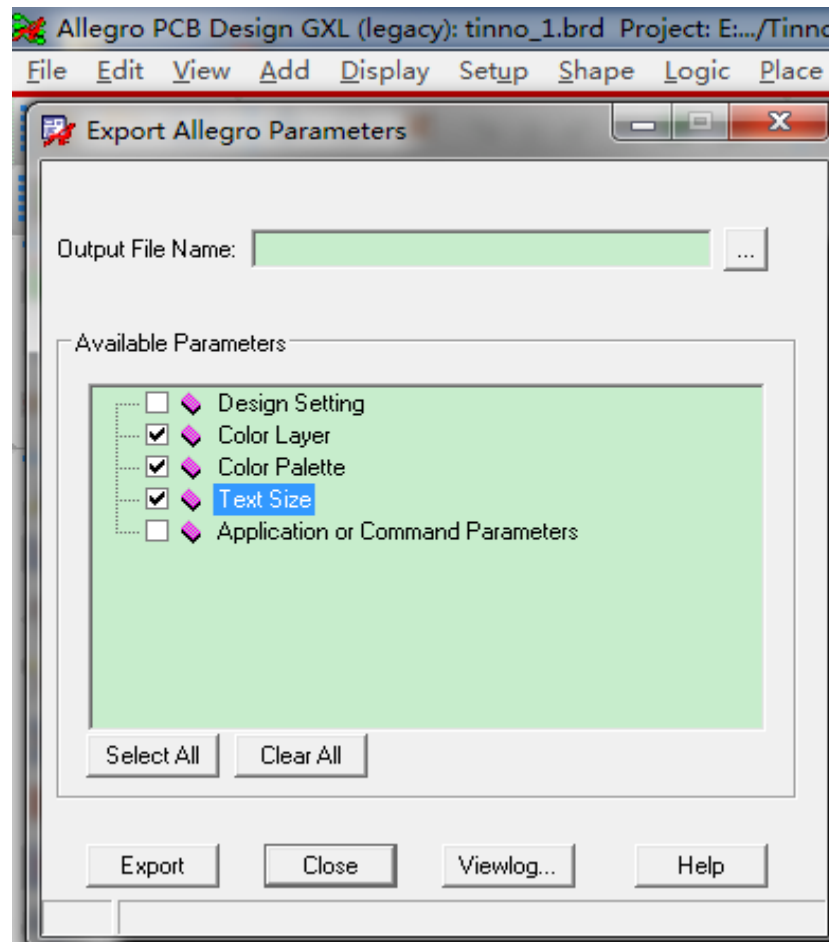
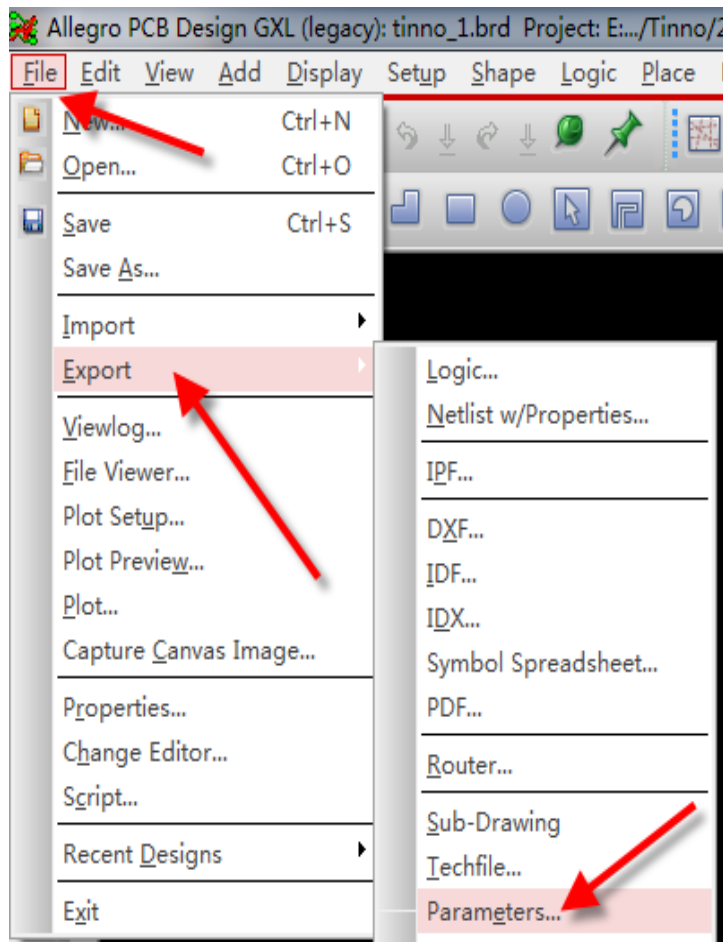
PCB Editor 设计环境和设置——参数设置

- Design Parameter
 - Text选项卡



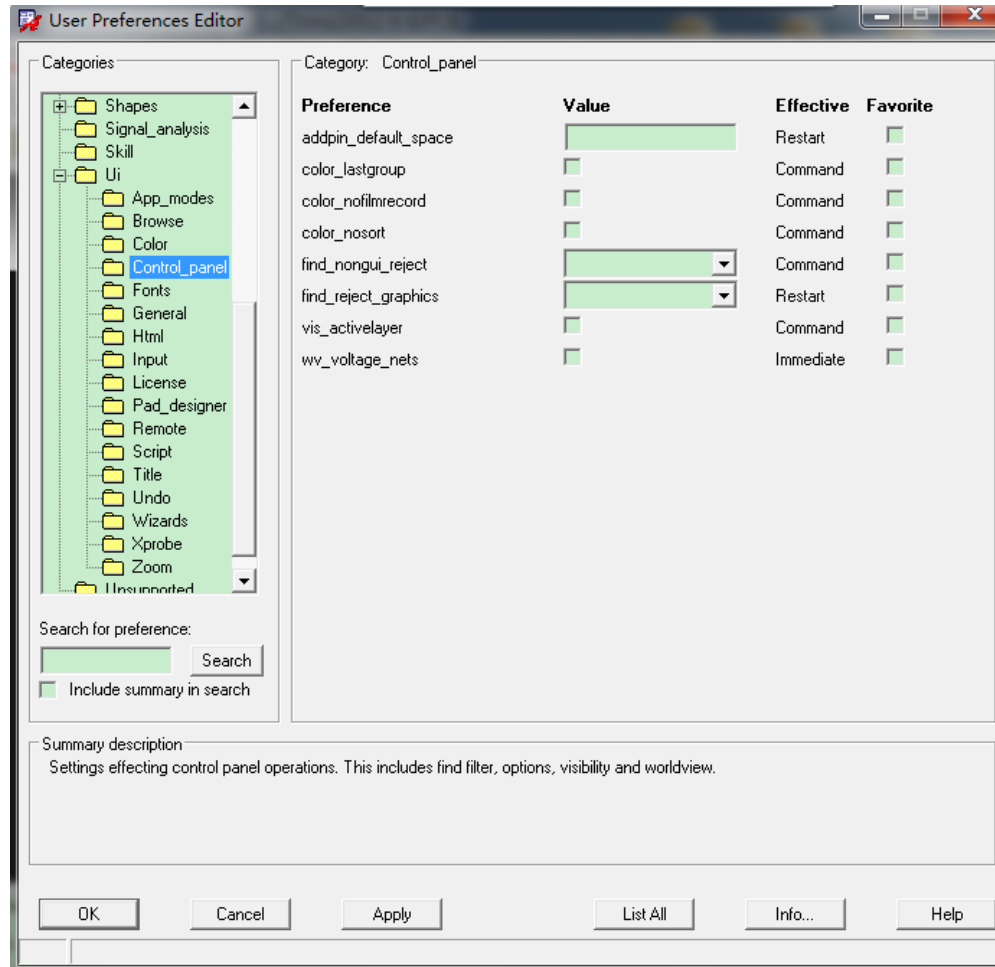
PCB Editor 设计环境和设置——参数设置

- Design Parameter参数的导入与导出



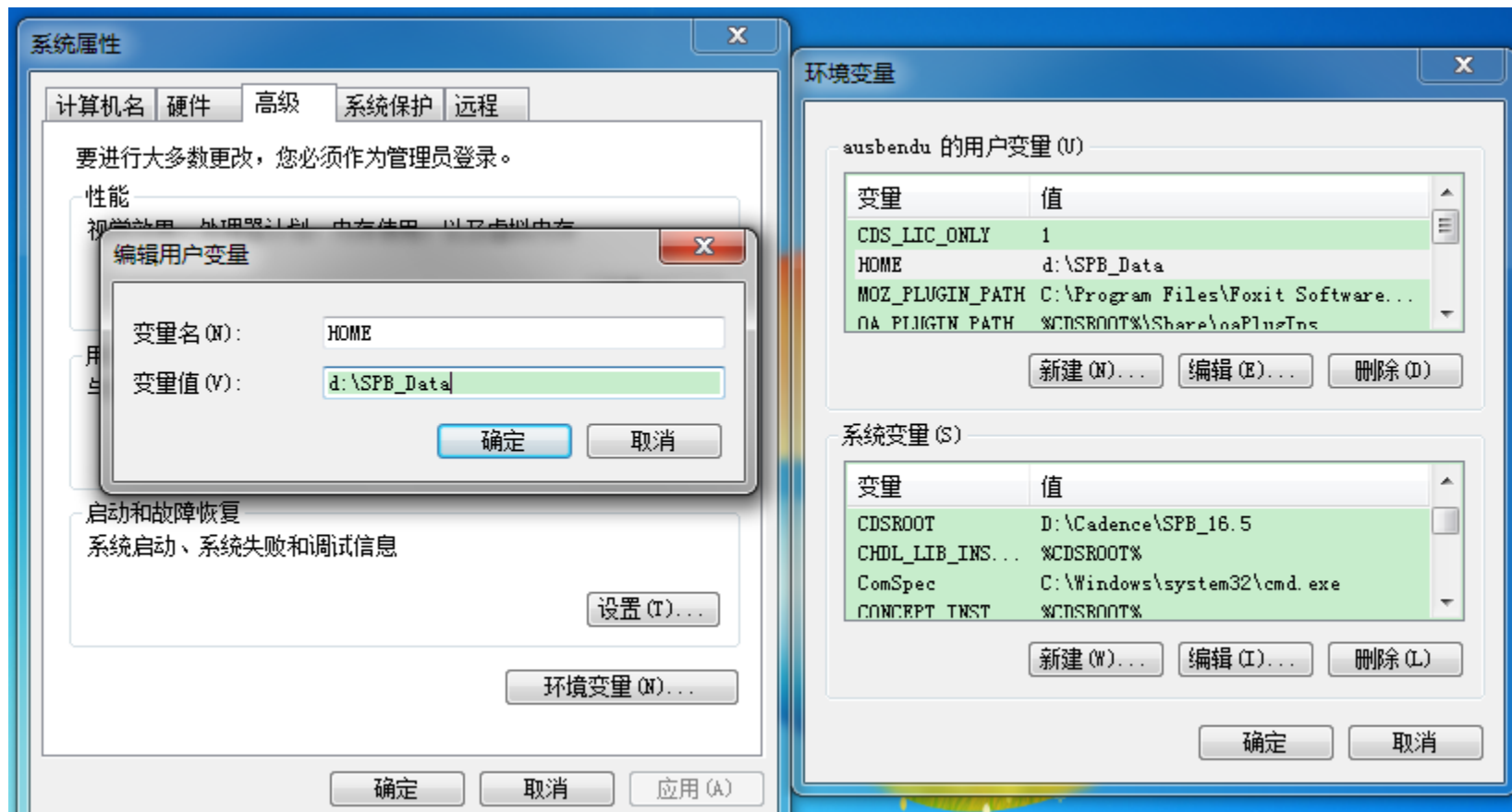
PCB Editor 设计环境和设置——环境设置

- 用户环境设置界面



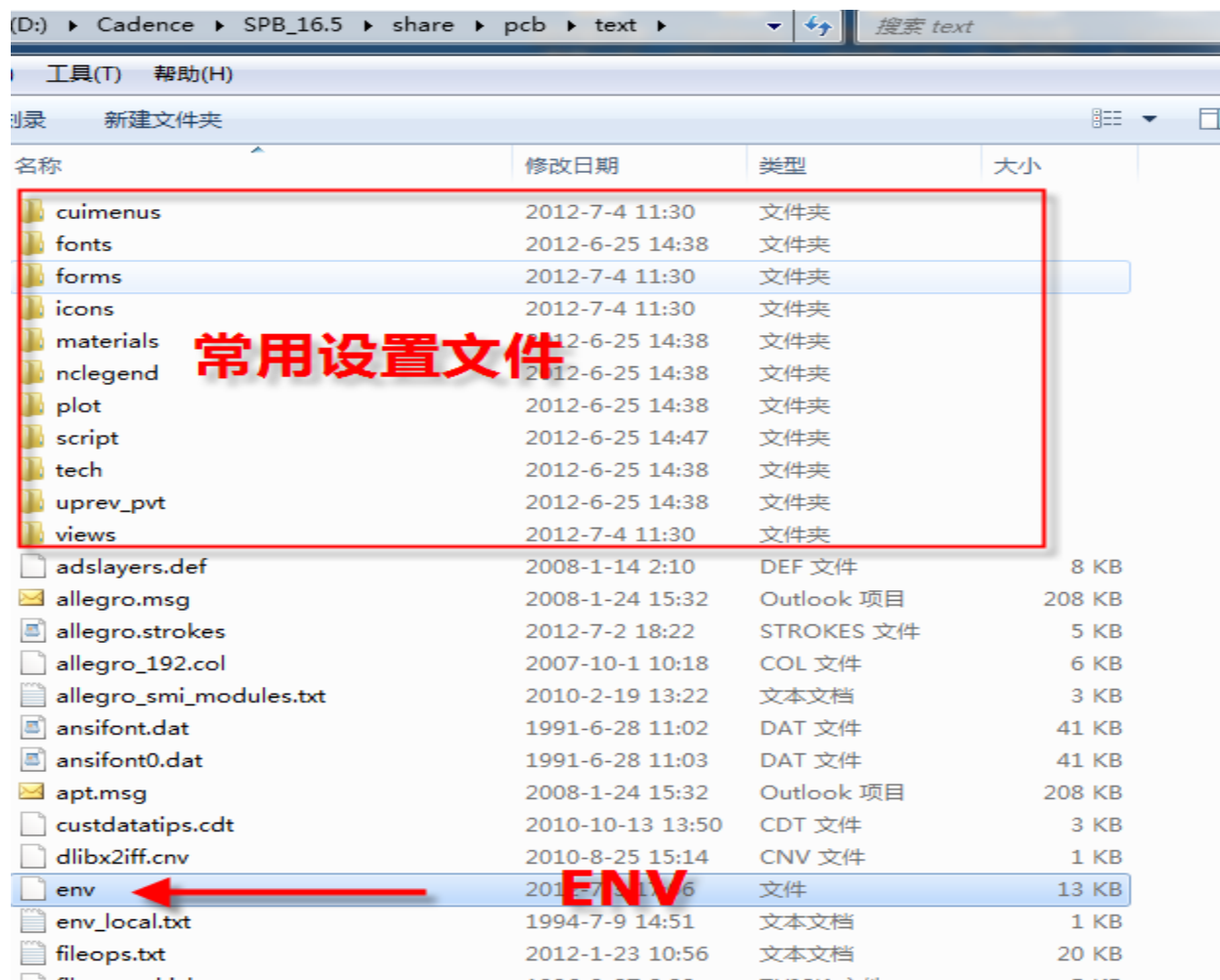
PCB Editor 设计环境和设置——参数设置

- 环境变量和Home路径



PCB Editor 设计环境和设置——参数设置

– 安装目录下的文件结构和ENV文件



PCB Editor 设计环境和设置——参数设置

• ENV内容及快捷键定义

```
# SigNoise model variables.
set SI_MODEL_PATH = . $ALLEGRO_SITE/signal $signal_install_dir
set SI_MODEL_FILE_EXT = Generic_IBIS(ibs) IBIS_Buffer(buf) IBIS_EBD(ebd)
IBIS_ICM(icm) IBIS_Pin_List(pin) IBIS_Package(pkg) Quad(mod) Generic_SPICE
(spc) HSpice_Input(sp) HSpice_Output(lis) Spectre(spc) Touchstone(S?p, s??, snp)
DML(ndx, dml) Interconnect(iml) ABIML(abiml)
```

```
#-----
# Non-HDL Supported Design Search Path Variables
set MISC_PATH = . $ALLEGRO_SITE/misc
set ART_PATH = . . . $ALLEGRO_SITE
set APT_PATH = . . . $ALLEGRO_SITE
set CLIP_PATH = .
set DCL_PATH = . . . $ALIB_PATH $COMPLIB_PATH
set DEV_PATH = . devices . . . /devices $ALLEGRO_SITE/devices $ALIB_PATH/devices
$COMPLIB_PATH/devices
set DFA_AUDIT_PATH = . $ALLEGRO_SITE/assembly $ALLEGRO_INSTALL_DIR/assembly
set DFA_CNS_PATH = . dfa . . . /dfa $ALLEGRO_SITE/dfa
set NCD_PATH = . . . $ALLEGRO_SITE/nclegend $GLOBAL/nclegend
set SCRIPT_PATH = . $ALLEGRO_SITE/scripts $GLOBAL/script
set TEXT_PATH = . $ALLEGRO_SITE/extracta $GLOBAL/views
set VIEW_PATH = . $ALLEGRO_SITE/views
set XTALK_TABLE_PATH = . xtalk_tables . . . /xtalk_tables $ALLEGRO_SITE/xtalk
$ALIB_PATH/xtalk_tables
set WIZARD_TEMPLATE_PATH = . $ALLEGRO_SITE/new_templates
$ALLEGRO_INSTALL_DIR/pcb_lib/symbols/template
set LDFF_PATH = .
```

```
# System Configuration .scf file search path
set SCF_PATH = . scfs . . . /scfs
```

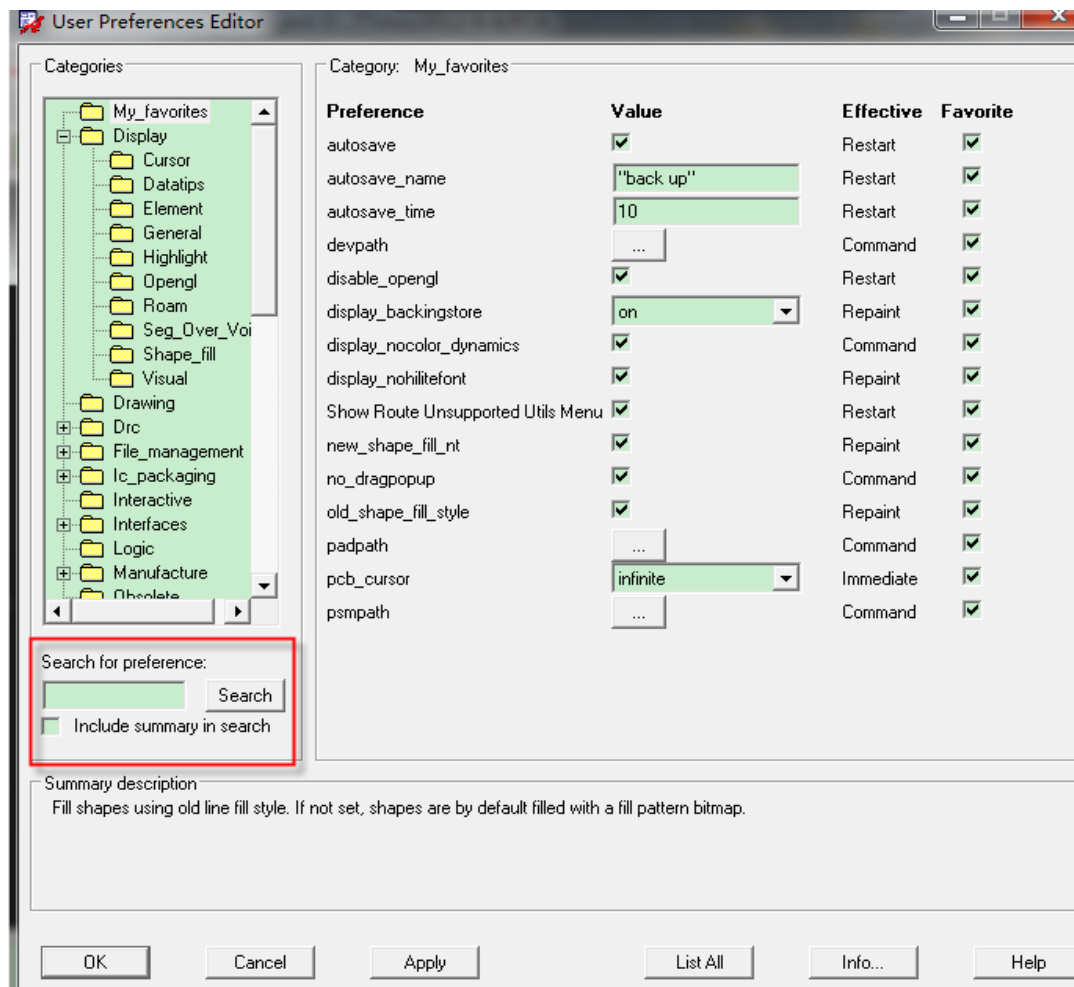
```
alias F2 toggle
alias F3 grid toggle
alias F4 show element
alias F5 redraw
alias F6 done
alias F7 next
alias F8 oops
alias F9 cancel
alias F10
alias F11 zoom in
alias F12 zoom out
alias SF2 property edit
alias SF3 slide
alias SF4 show measure
alias SF5 copy
alias SF6 move
alias SF7 dehighlight all
alias SF8 highlight pick
alias SF9 vertex
alias SF10 save_as temp
alias SF11 zoom previous
alias SF12 zoom world
alias CF2 next
alias CF5 color192
alias CF6 layer priority
alias CSF5 status|
```

```
funkey a slide
funkey A
funkey b custom smooth
funkey B dbdoctor
funkey c copy
funkey C shape void copy
funkey d done
funkey D diff pairs
funkey e move
funkey E cmgr
funkey f shape add
funkey F create fanout
funkey g shape edit boundary
funkey G
funkey h assign color
funkey H x_eq_cline
funkey I island_delete

funkey j dehighlight all
funkey J x_cmd_align_text
funkey k color192
funkey K
funkey l
funkey L
funkey m show measure
```

PCB Editor 设计环境和设置——参数设置

- 搜索及My_favorites的使用



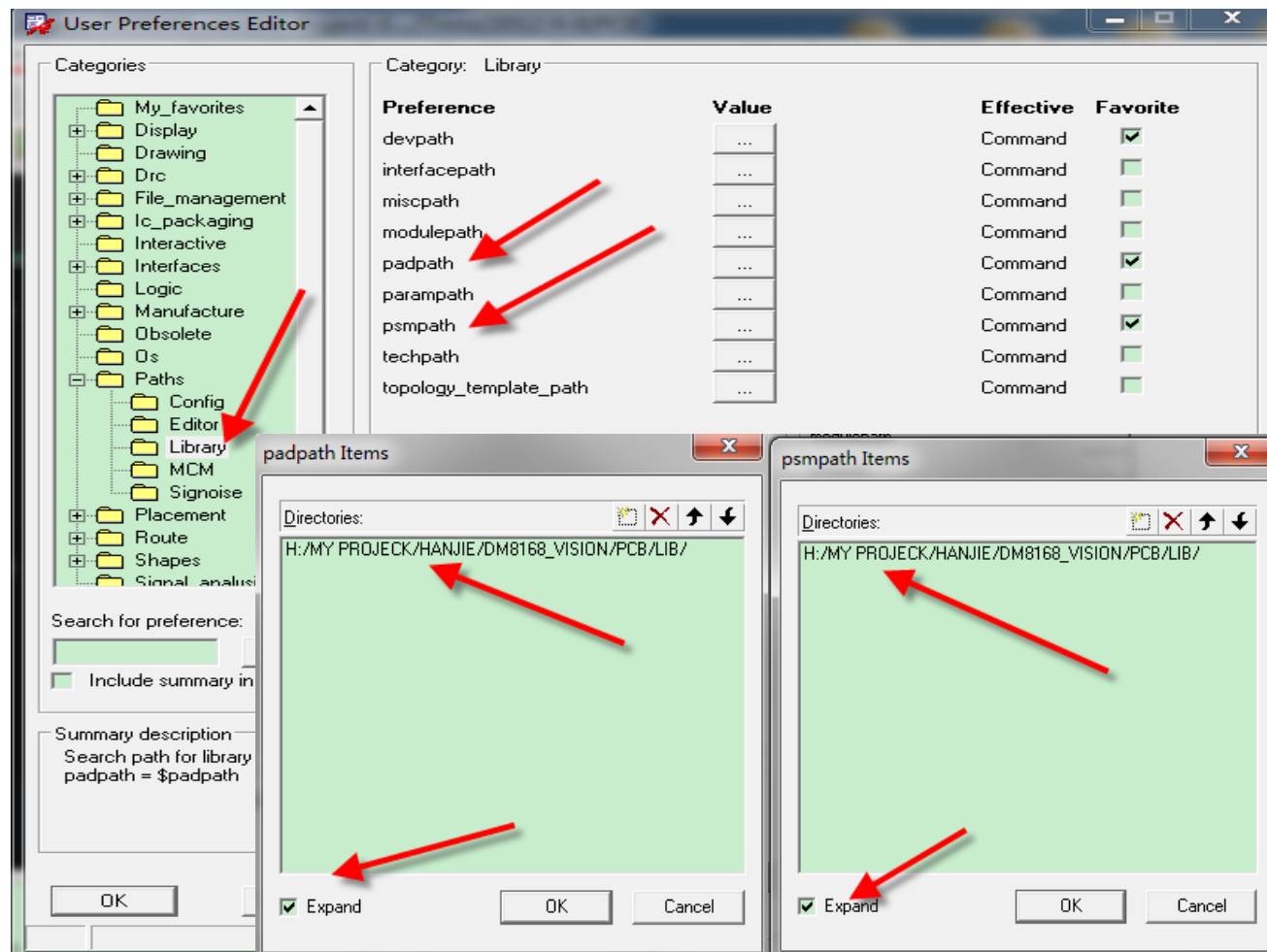
PCB Editor 设计环境和设置——参数设置

• 常用项目设置

Preference	Value	Effective	Favorite
autosave	<input checked="" type="checkbox"/>	Restart	<input checked="" type="checkbox"/>
autosave_name	""back up""	Restart	<input checked="" type="checkbox"/>
autosave_time	10	Restart	<input checked="" type="checkbox"/>
devpath	...	Command	<input checked="" type="checkbox"/>
disable_opengl	<input checked="" type="checkbox"/>	Restart	<input checked="" type="checkbox"/>
display_backingstore	on	Repaint	<input checked="" type="checkbox"/>
display_nocolor_dynamics	<input checked="" type="checkbox"/>	Command	<input checked="" type="checkbox"/>
display_nohilitefont	<input checked="" type="checkbox"/>	Repaint	<input checked="" type="checkbox"/>
Show Route Unsupported Utils Menu	<input checked="" type="checkbox"/>	Restart	<input checked="" type="checkbox"/>
new_shape_fill_nt	<input checked="" type="checkbox"/>	Repaint	<input checked="" type="checkbox"/>
no_dragpopup	<input checked="" type="checkbox"/>	Command	<input checked="" type="checkbox"/>
old_shape_fill_style	<input checked="" type="checkbox"/>	Repaint	<input checked="" type="checkbox"/>
padpath	...	Command	<input checked="" type="checkbox"/>
pcb_cursor	infinite	Immediate	<input checked="" type="checkbox"/>
psmpath	...	Command	<input checked="" type="checkbox"/>

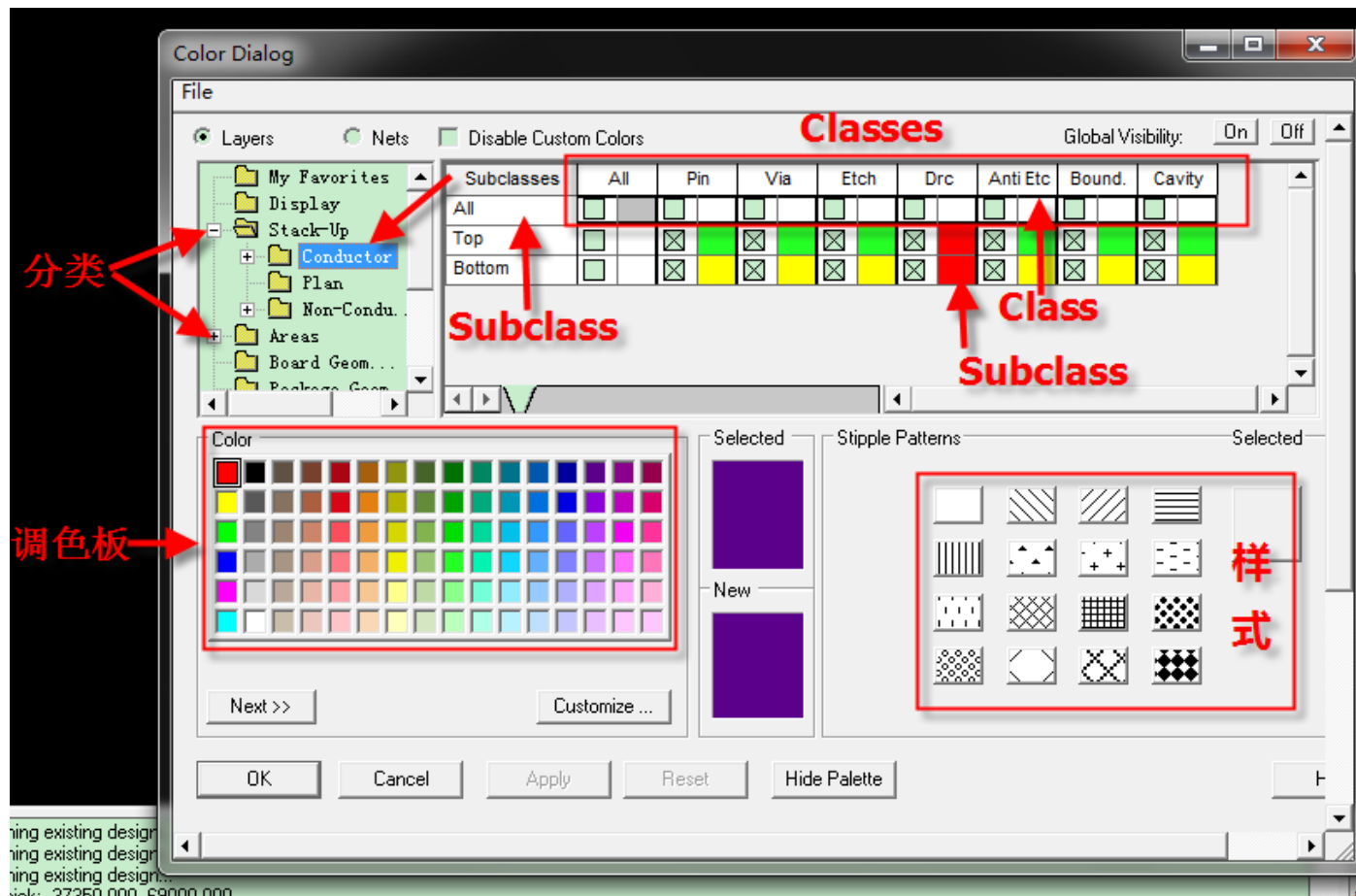
PCB Editor 设计环境和设置——参数设置

- 库路径设置



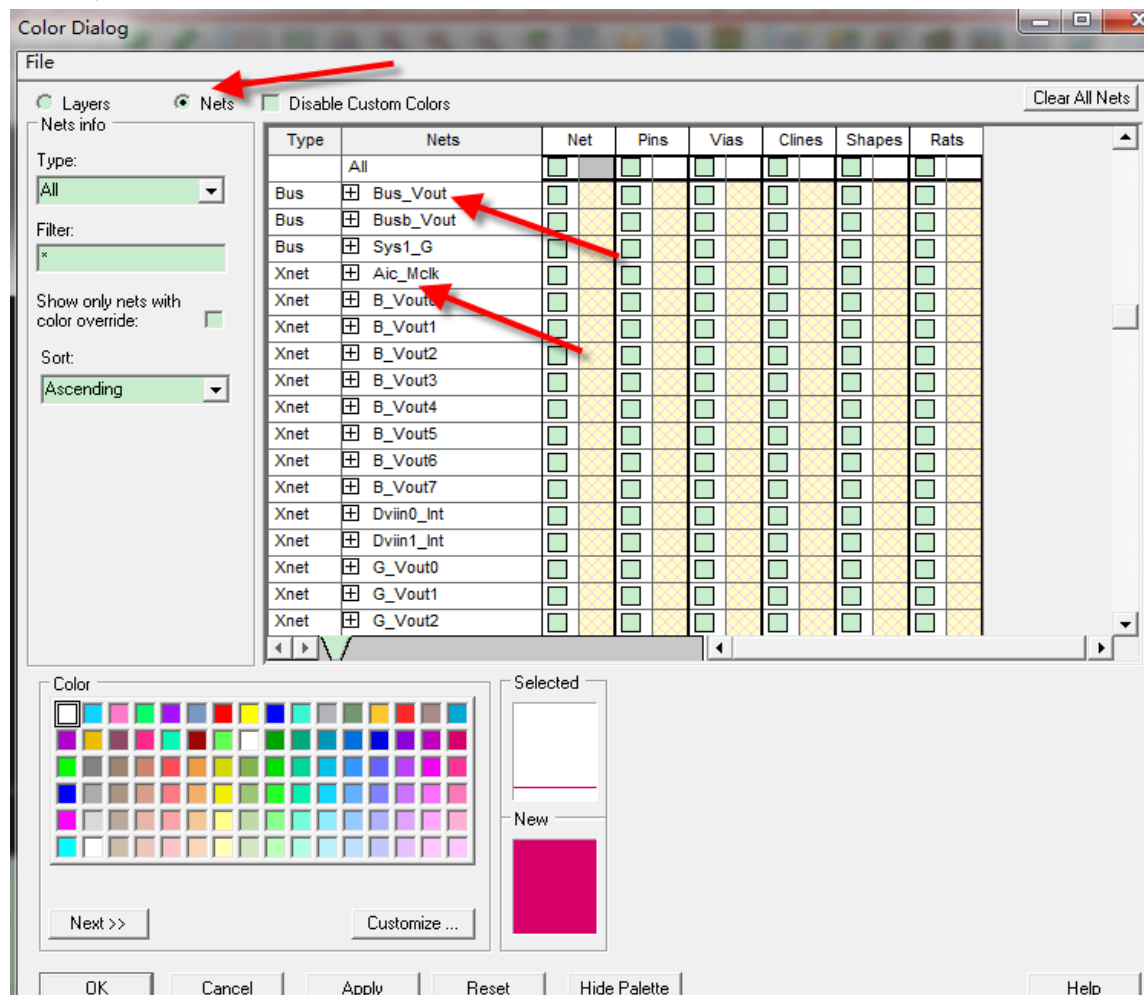
PCB Editor 设计环境和设置——参数设置

• 颜色设置（Class和Subclass）



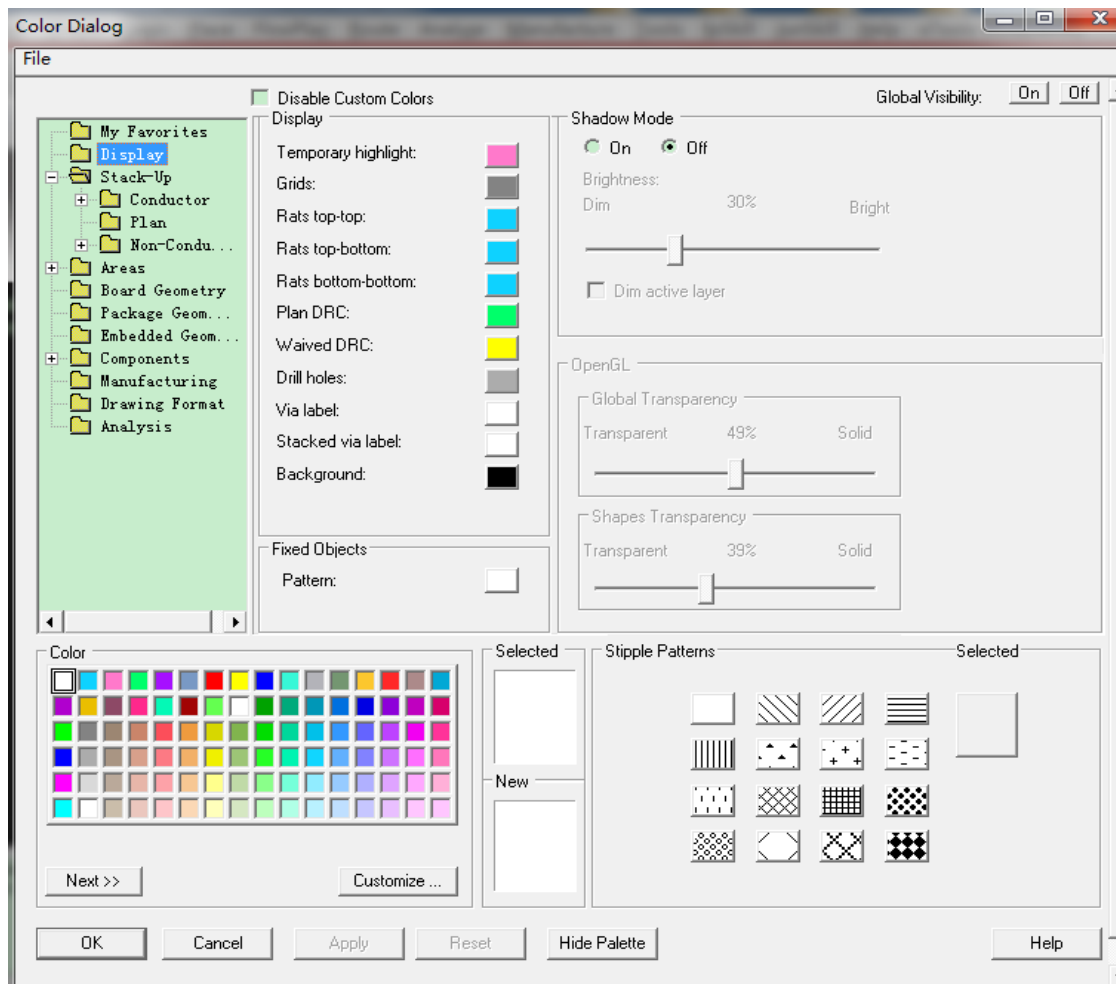
PCB Editor 设计环境和设置——参数设置

- 按照Net进行颜色设置



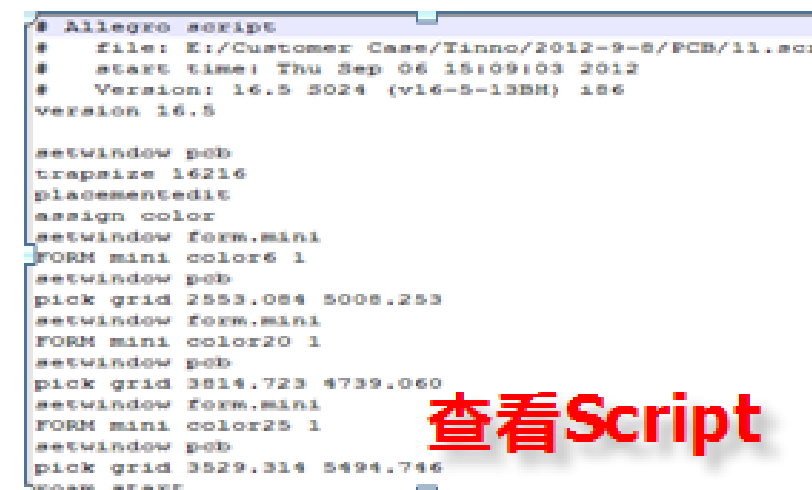
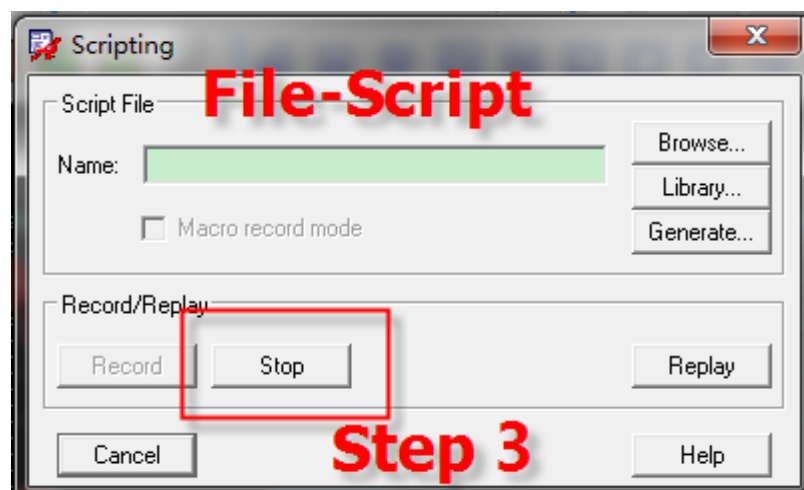
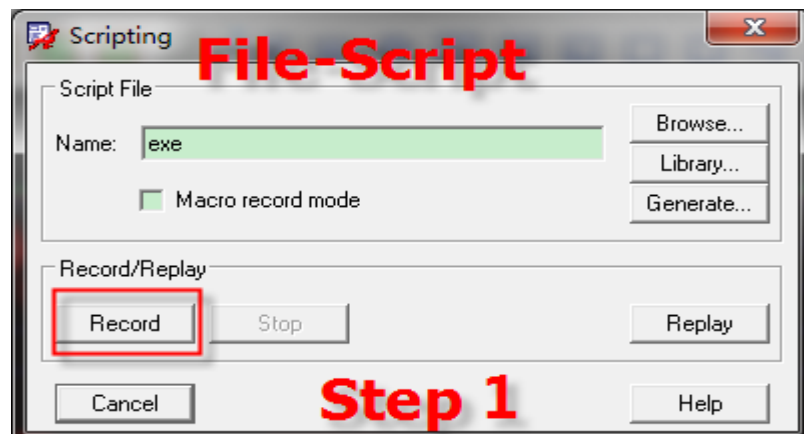
PCB Editor 设计环境和设置——参数设置

- Display选项卡



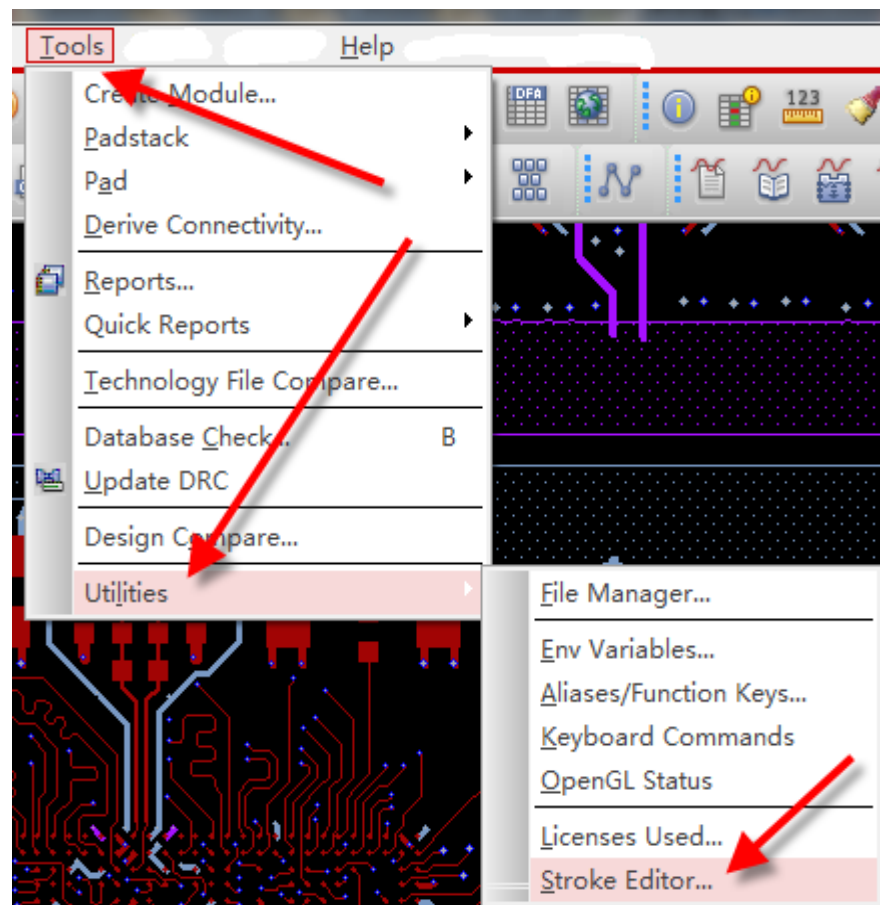
PCB Editor 设计环境和设置——参数设置

• Script功能应用



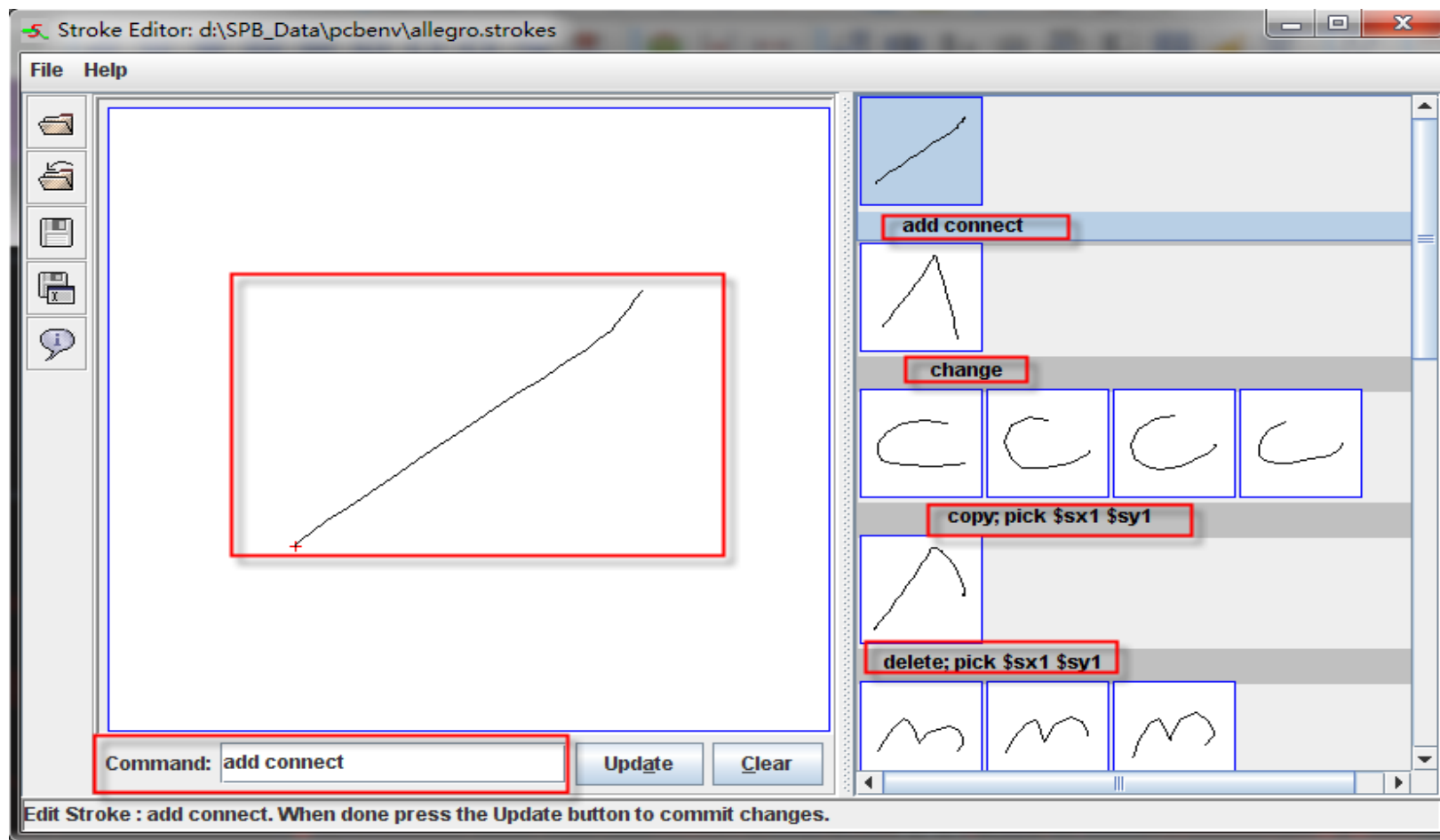
PCB Editor 设计环境和设置——参数设置

• Stroke功能应用



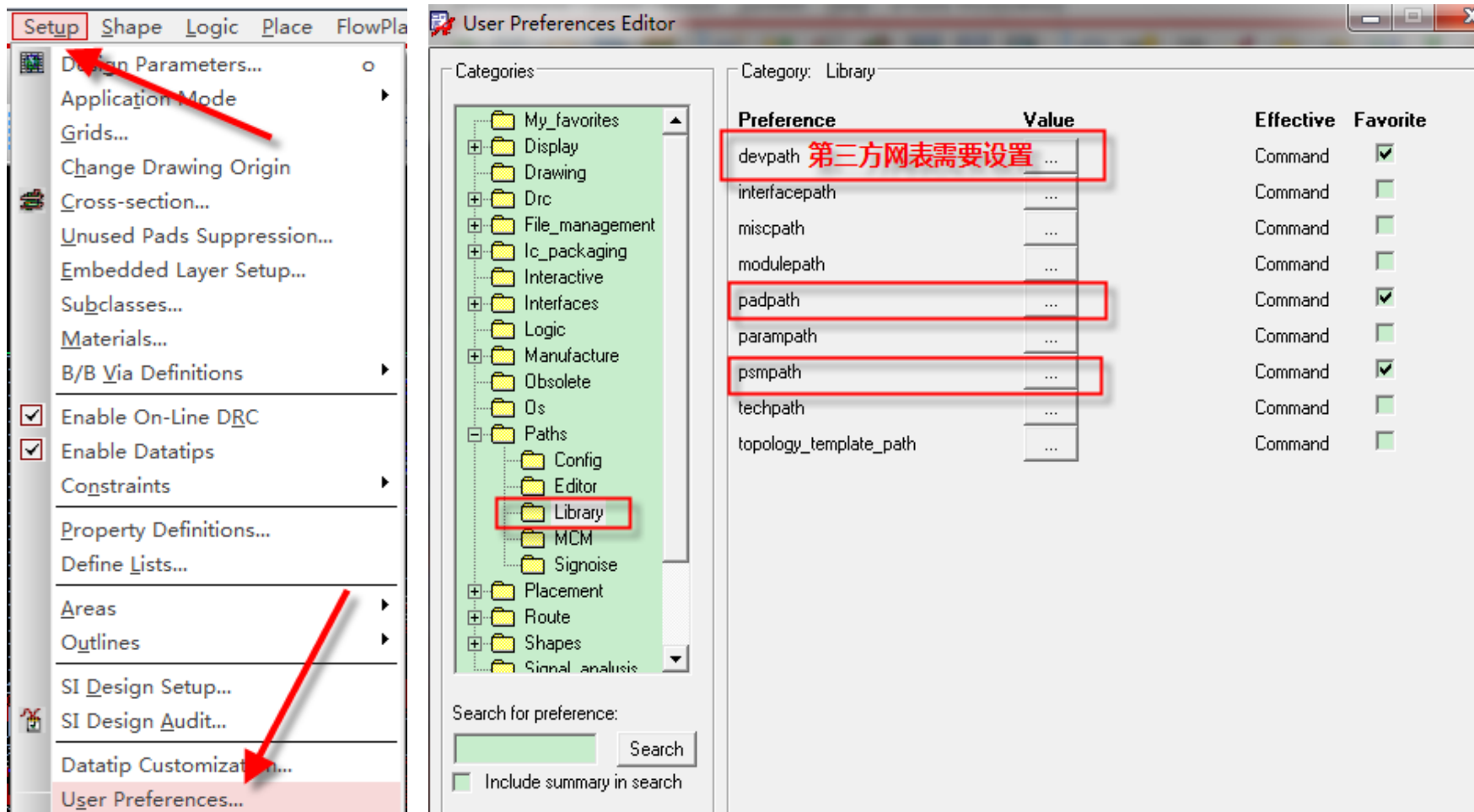
PCB Editor 设计环境和设置——参数设置

- Stroke功能应用



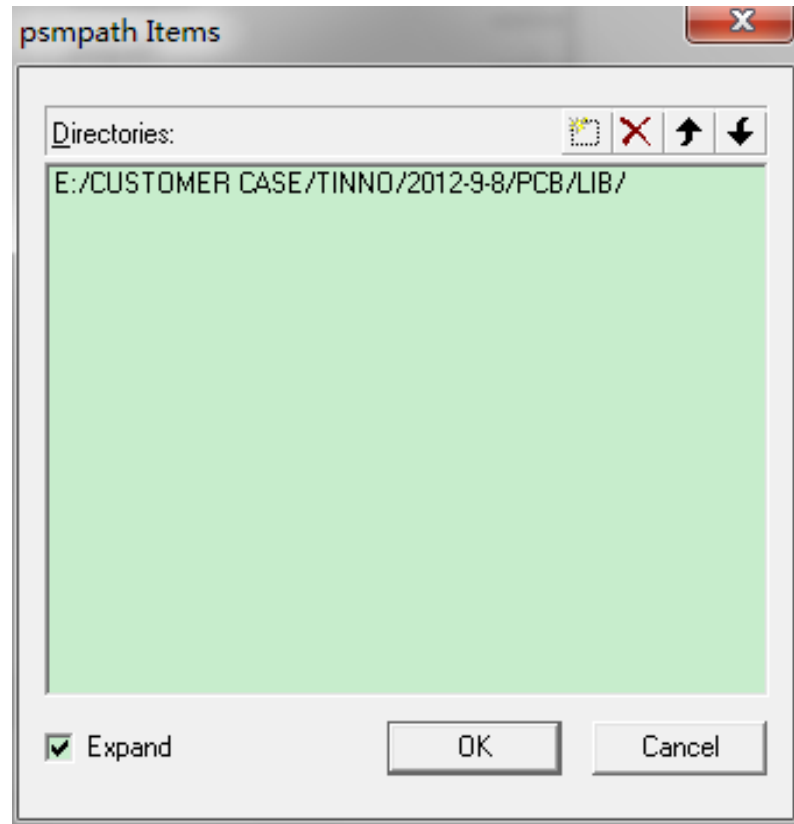
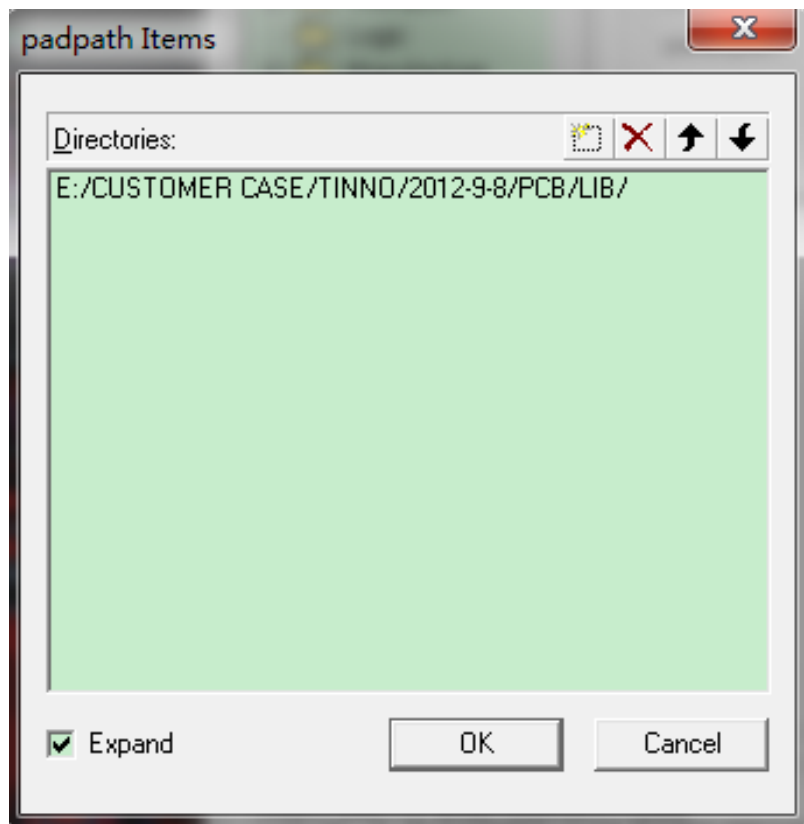
PCB 设计前处理——导网表

封装库路径设置



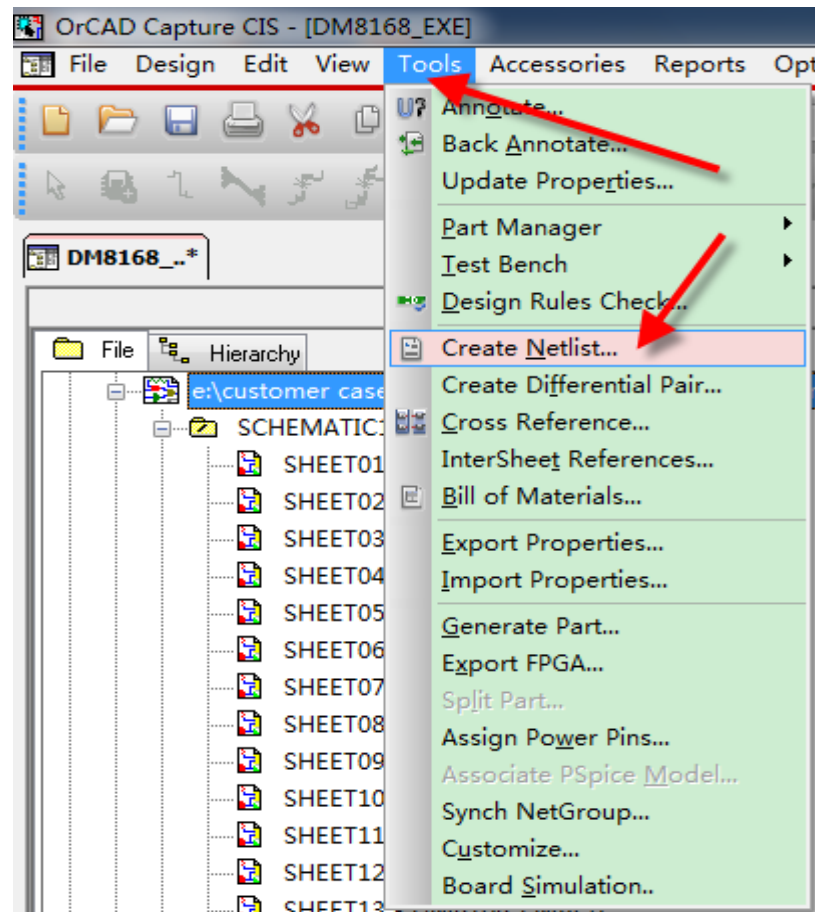
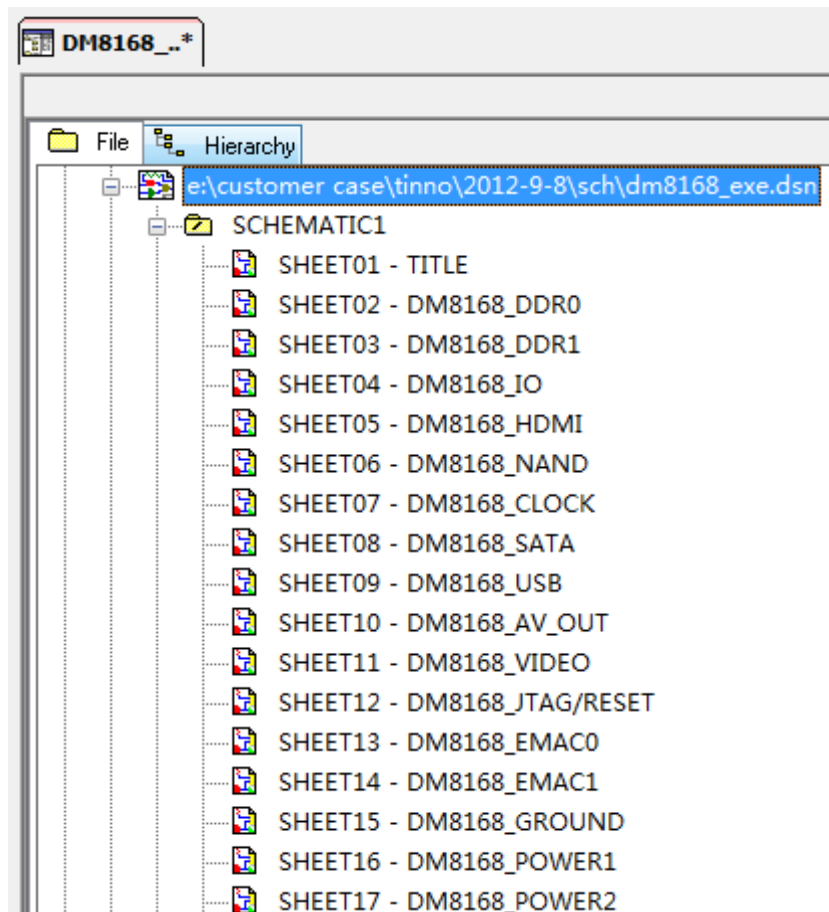
PCB 设计前处理——导网表

- 封装库路径设置



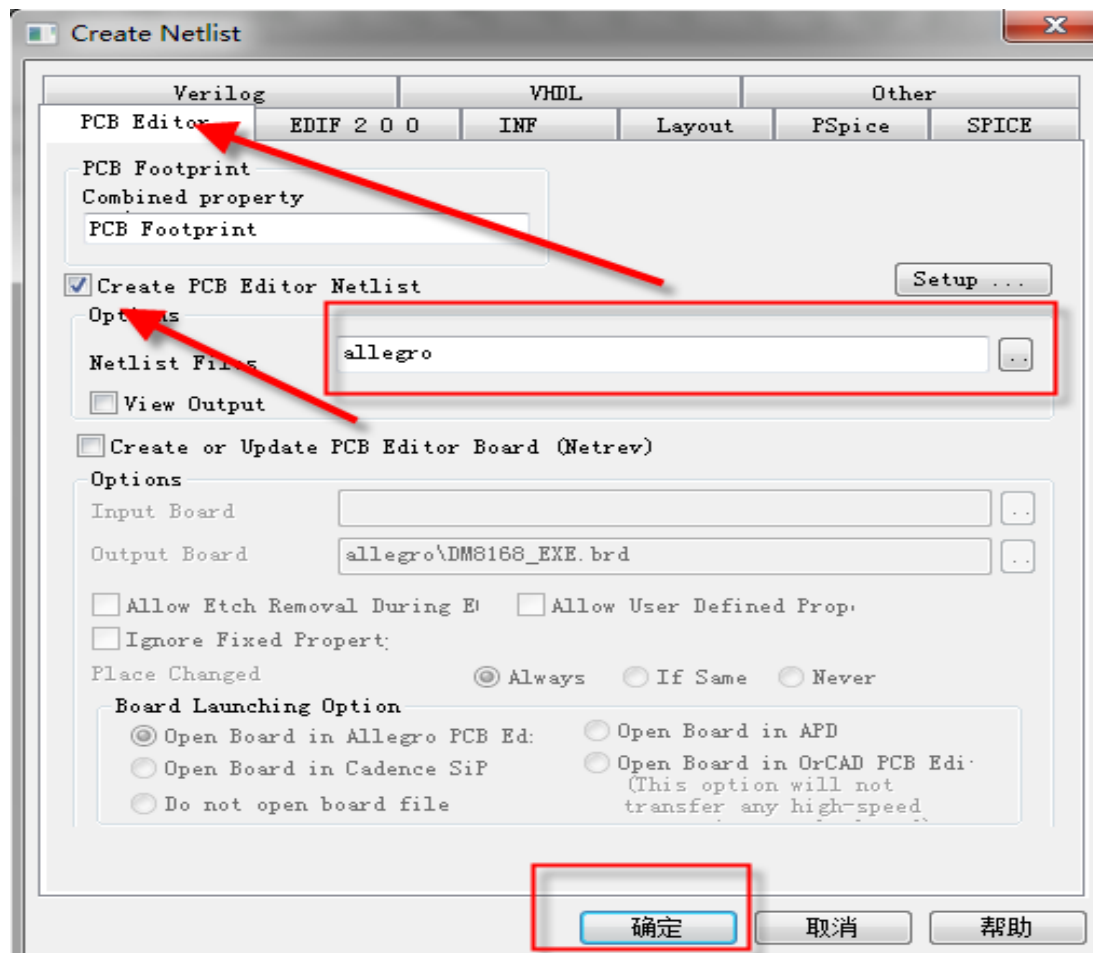
PCB 设计前处理——导网表

- Capture CIS 第一方网表导出/导入



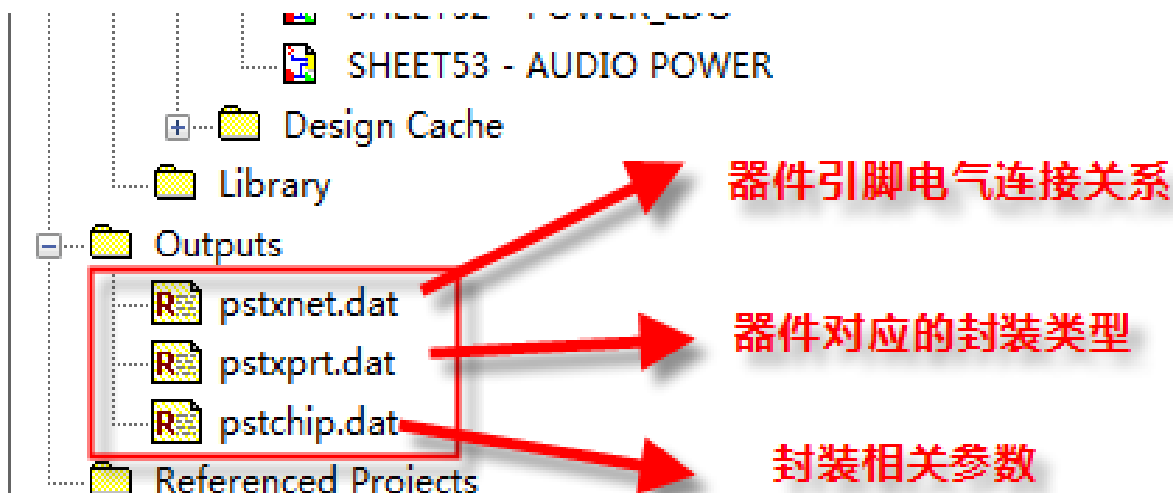
PCB 设计前处理——导网表

- Capture CIS 第一方网表导出/导入



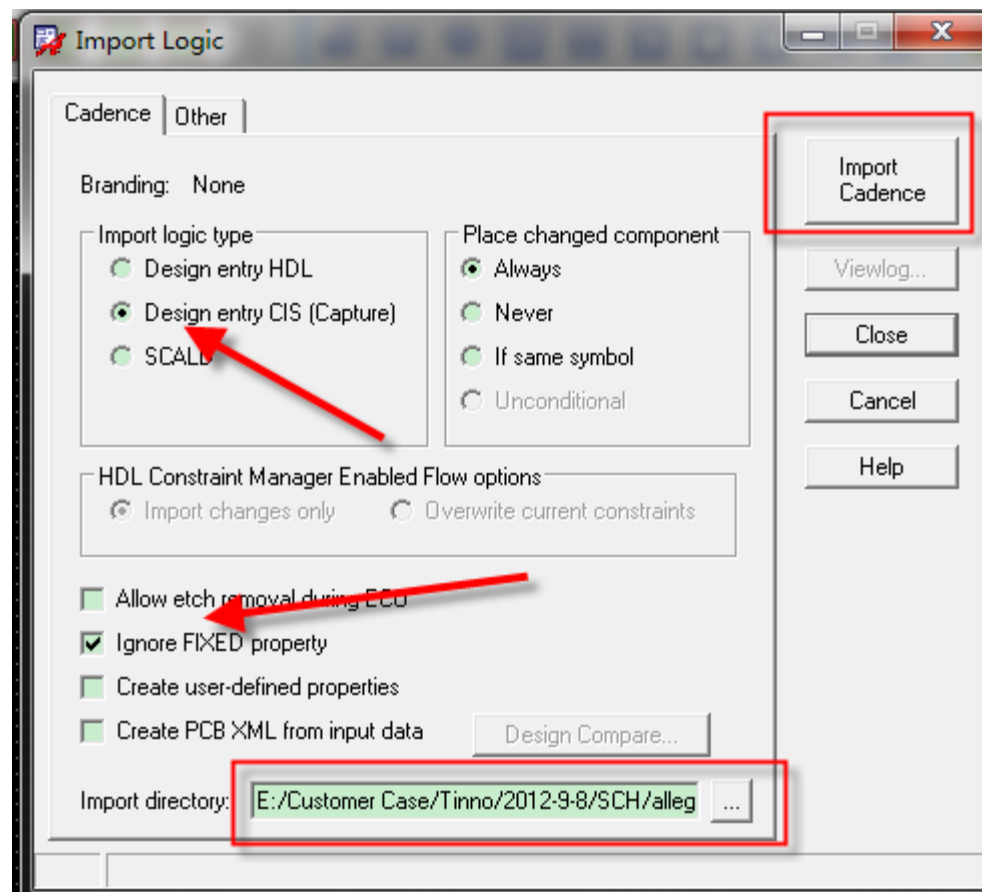
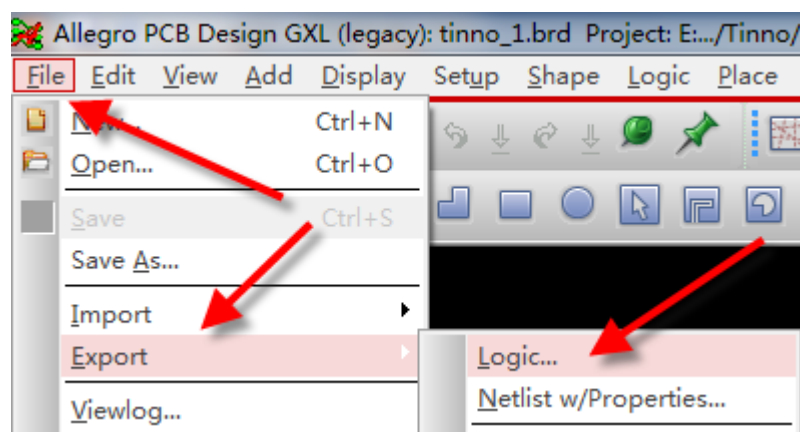
PCB 设计前处理——导网表

- Capture CIS 第一方网表导出/导入



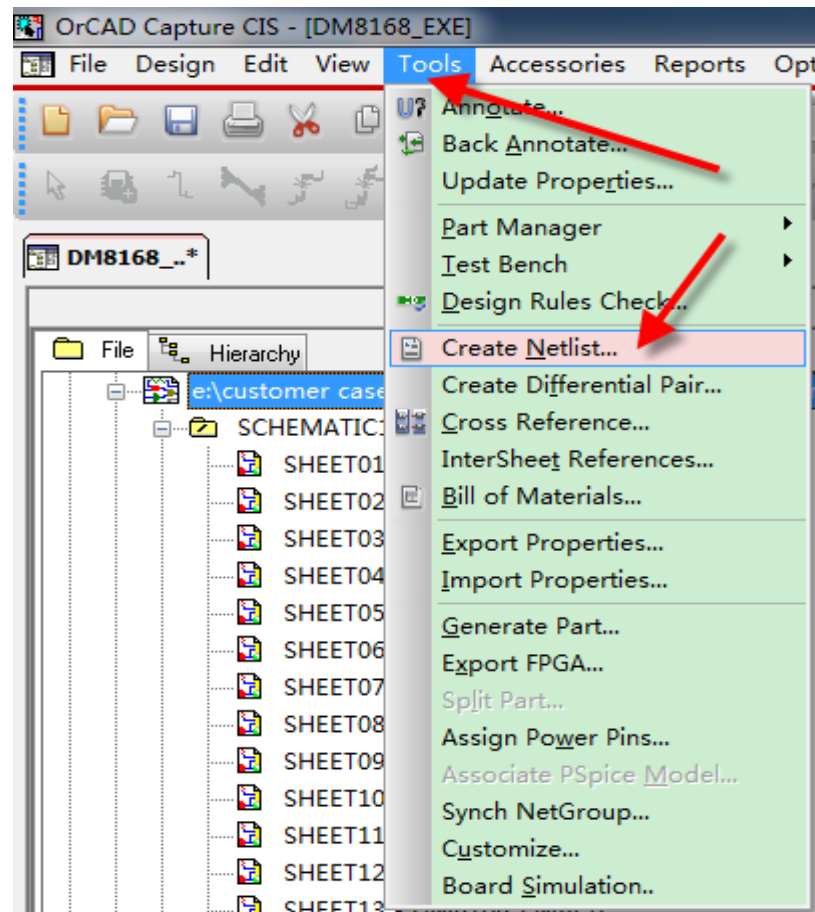
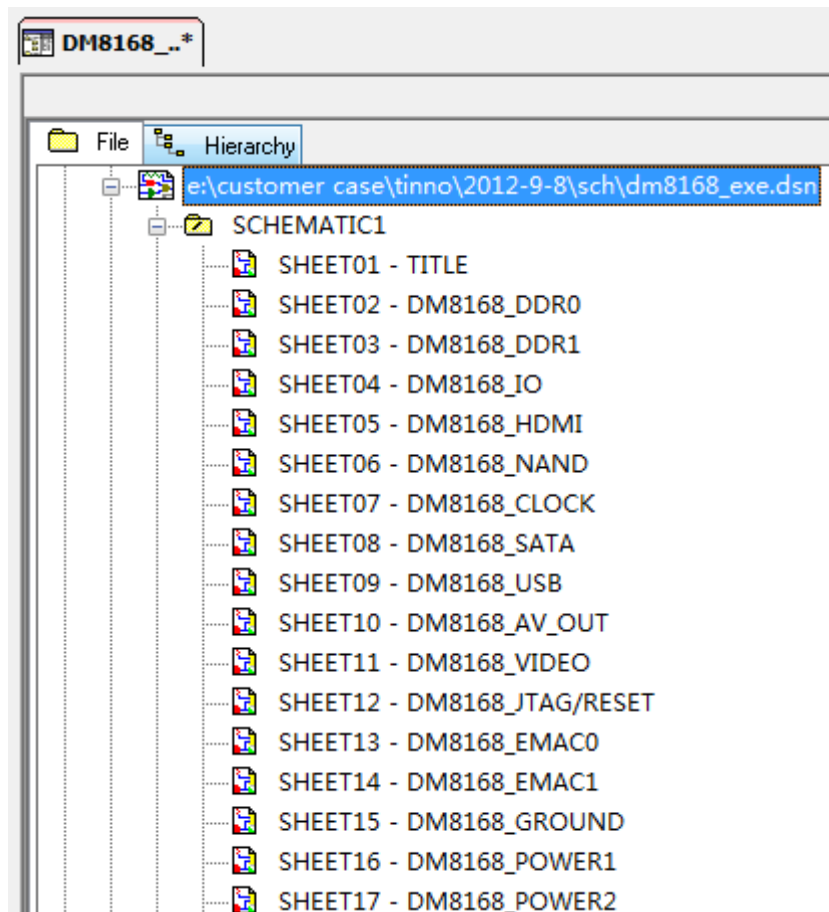
PCB 设计前处理——导网表

- **Capture CIS** 第一方网表导出/导入



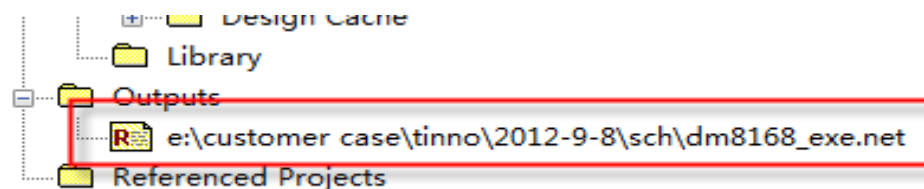
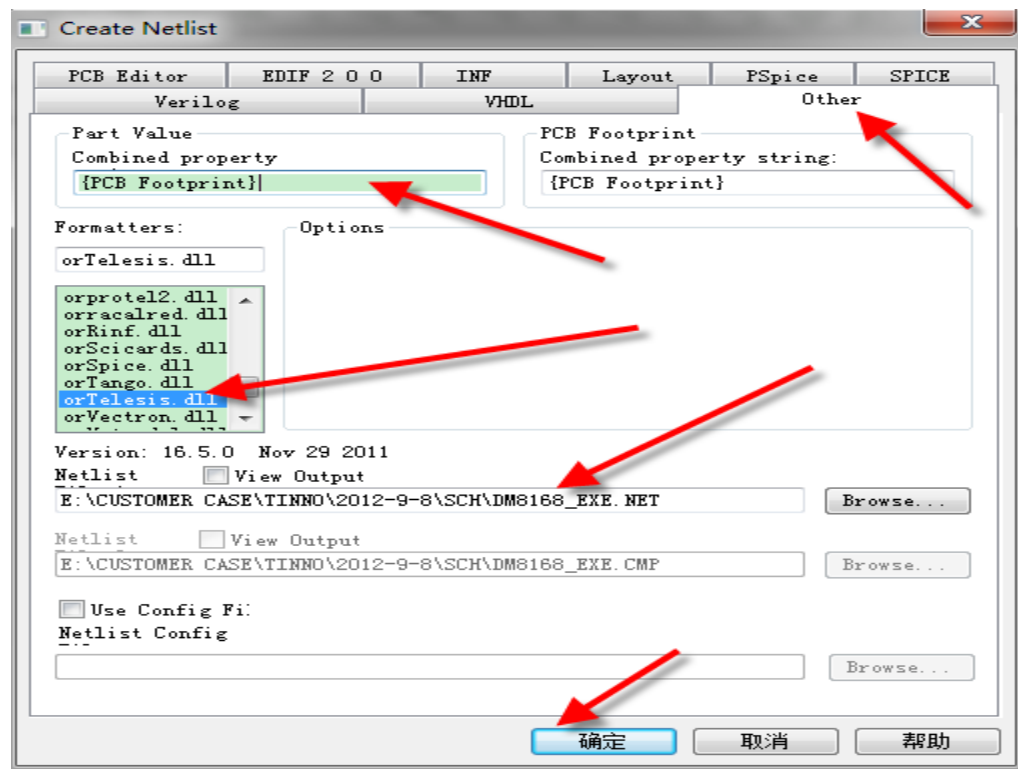
PCB 设计前处理——导网表

- **Capture CIS**第三方网表导出/导入



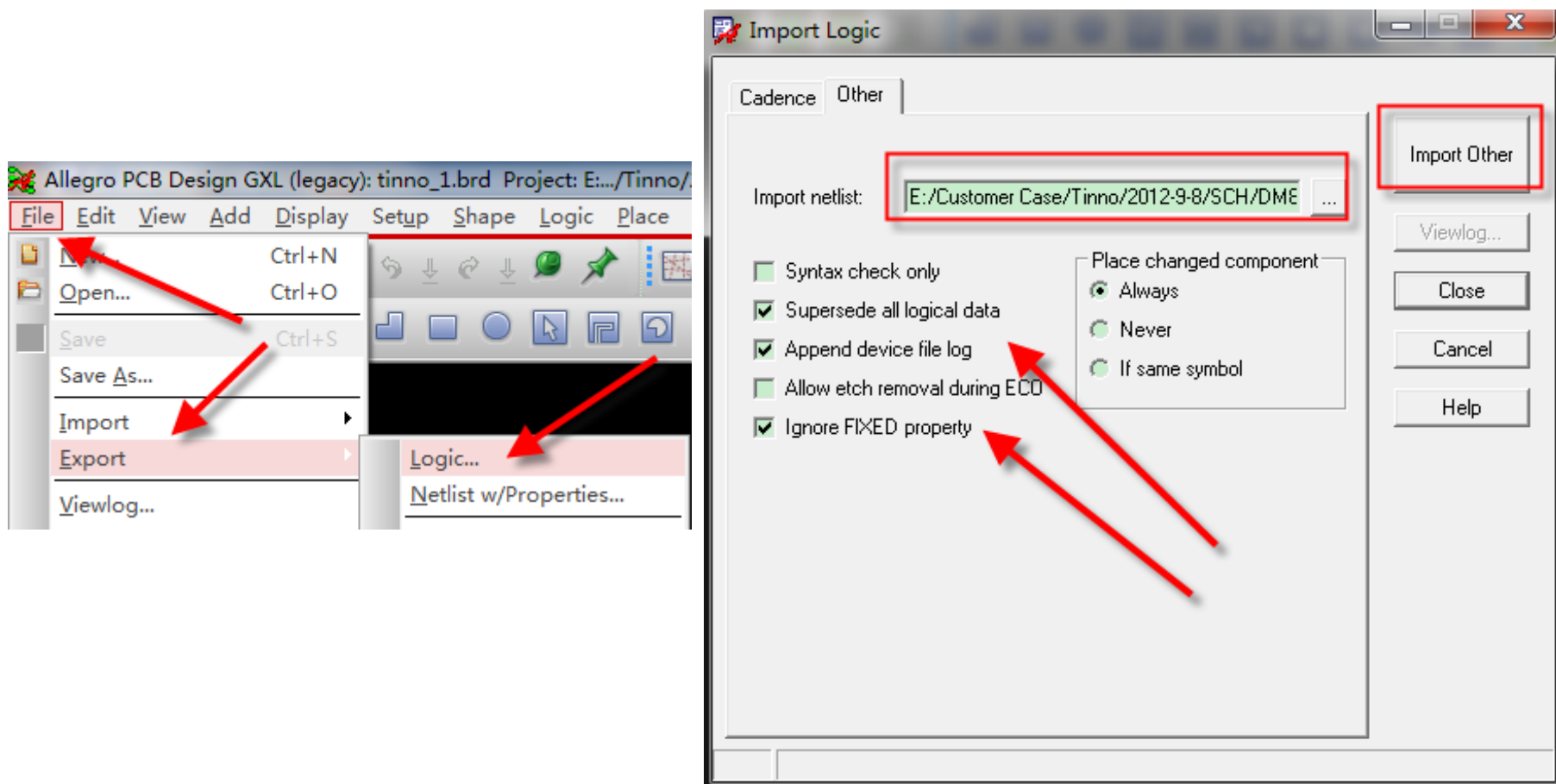
PCB 设计前处理——导网表

- Capture CIS第三方网表导出/导入



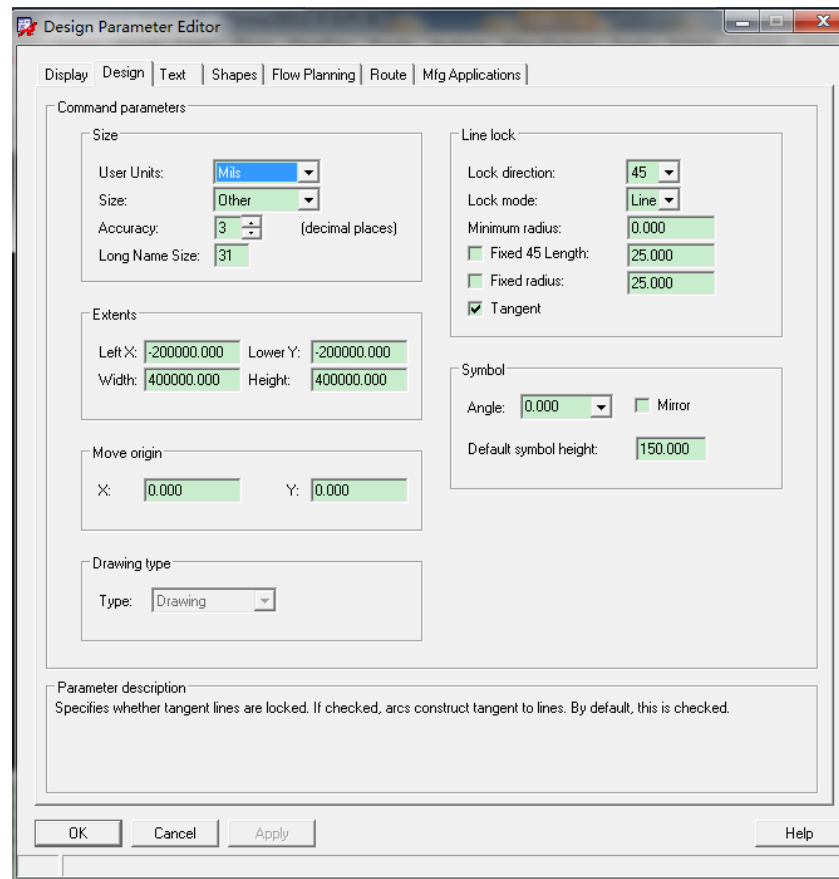
PCB 设计前处理——导网表

- **Capture CIS**第三方网表导出/导入



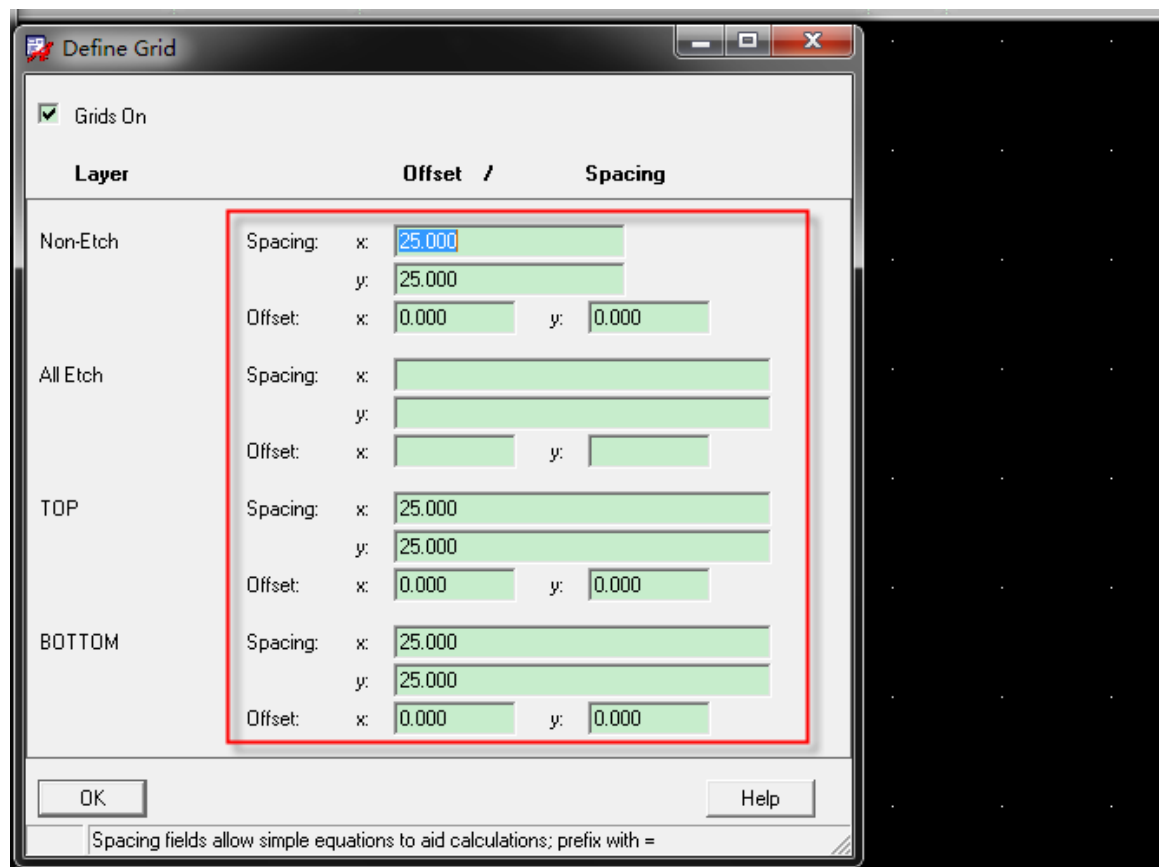
PCB 设计前处理——建立板框

- 手动绘制
 - Setup Design Parameter Editor



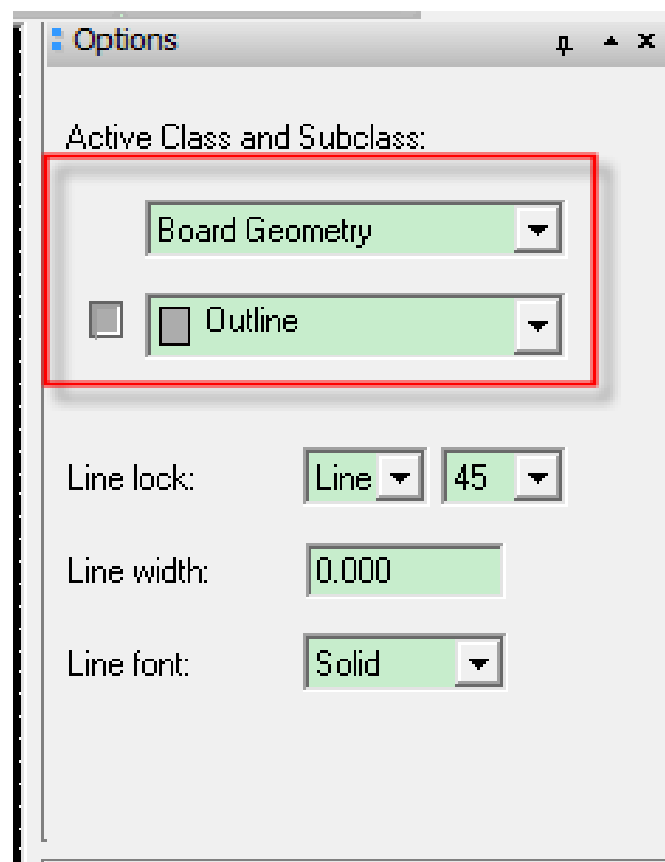
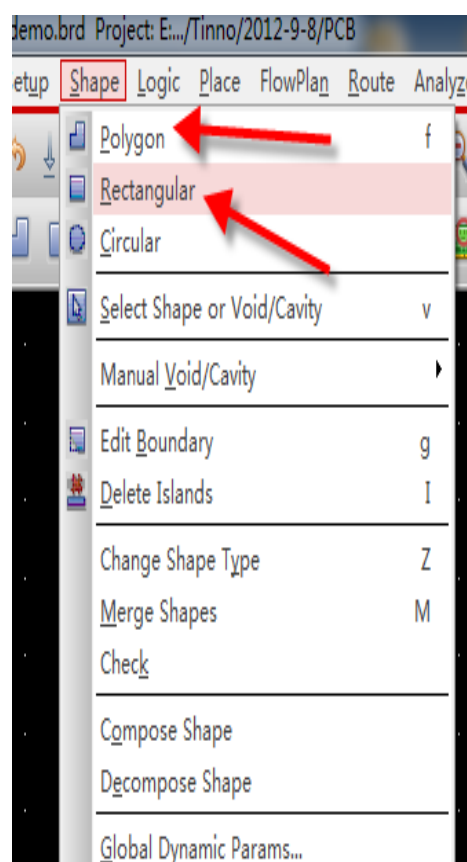
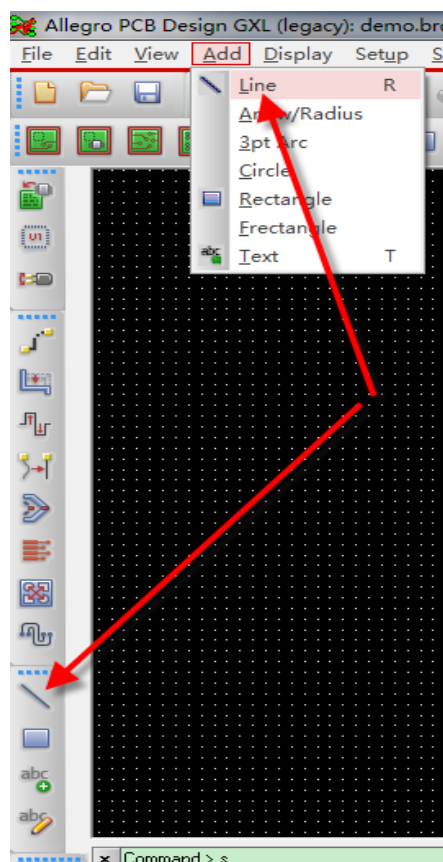
PCB 设计前处理——建立板框

- 手动绘制
 - 设置格点



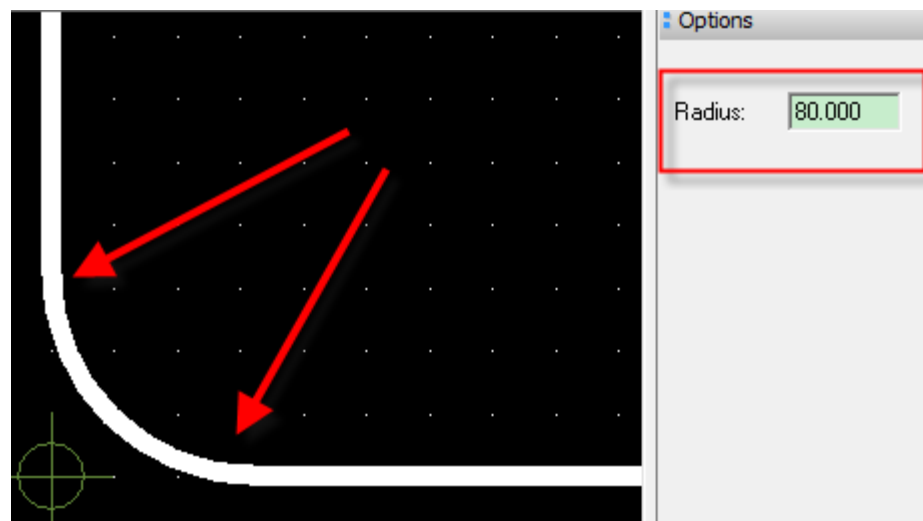
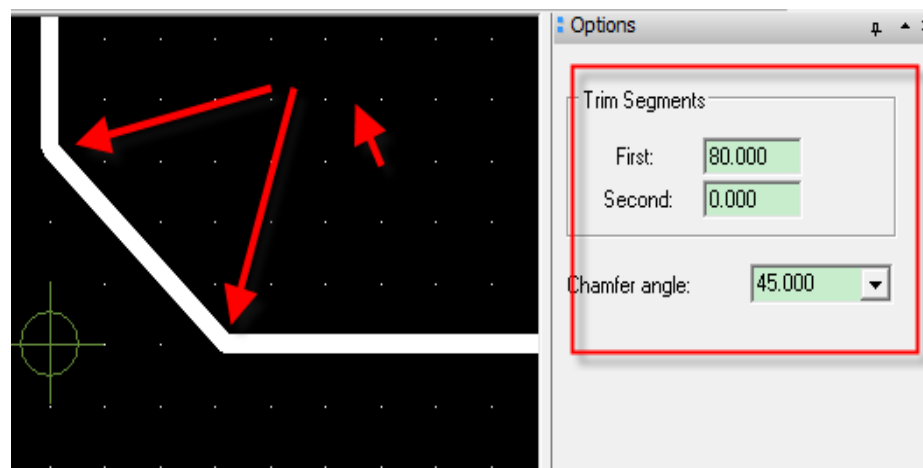
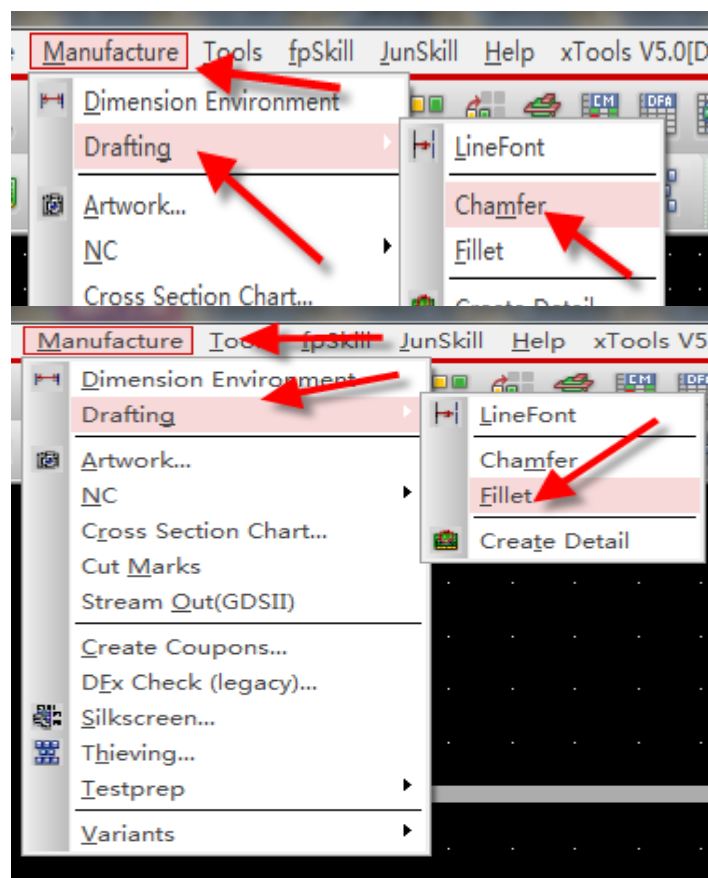
PCB 设计前处理——建立板框

- 手动绘制
 - 创建板框



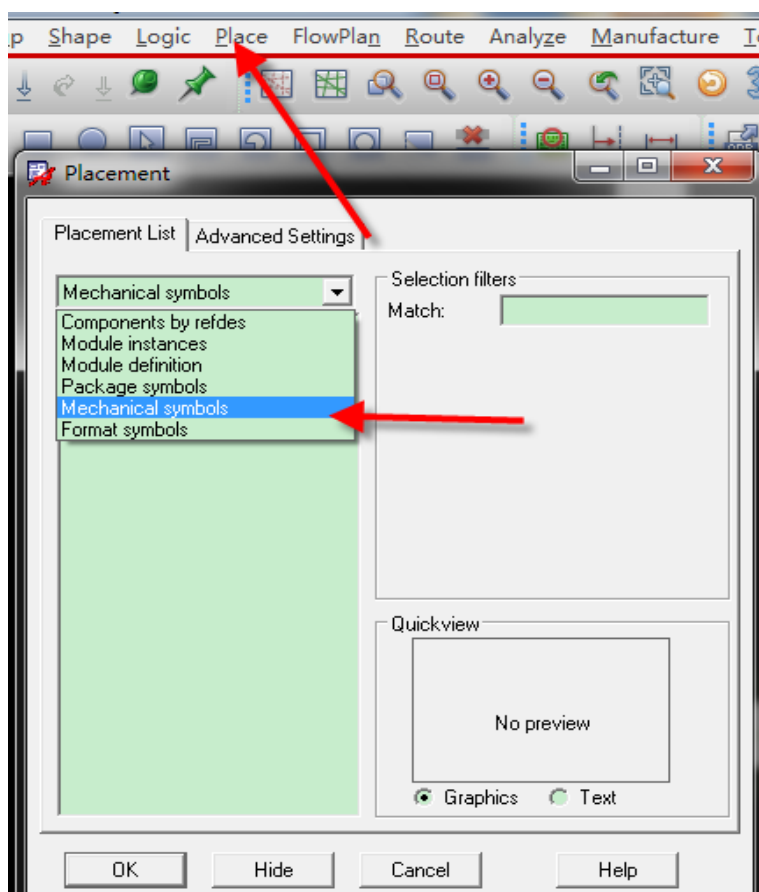
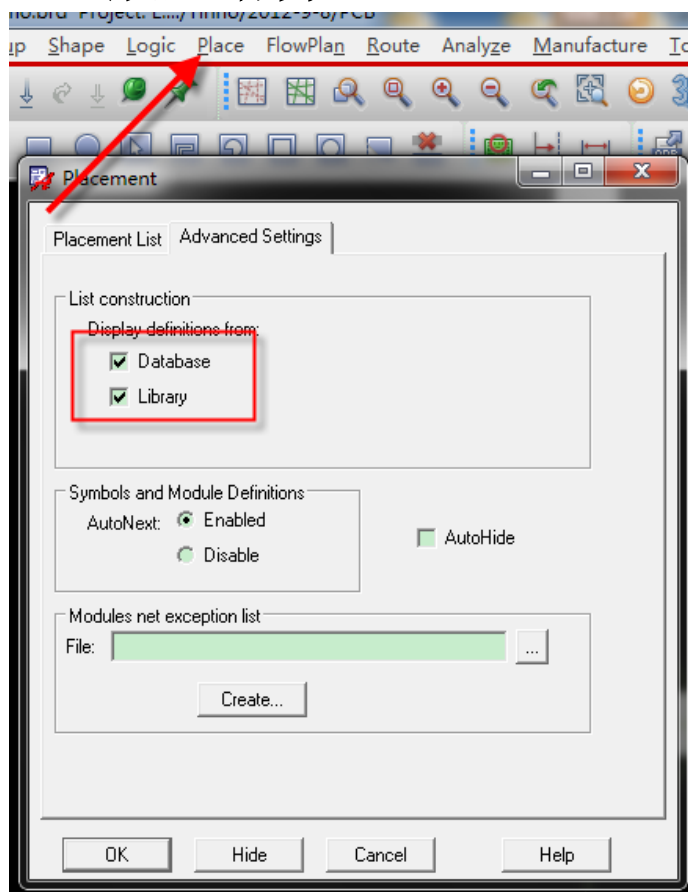
PCB 设计前处理——建立板框

- 手动绘制
 - 板框倒角



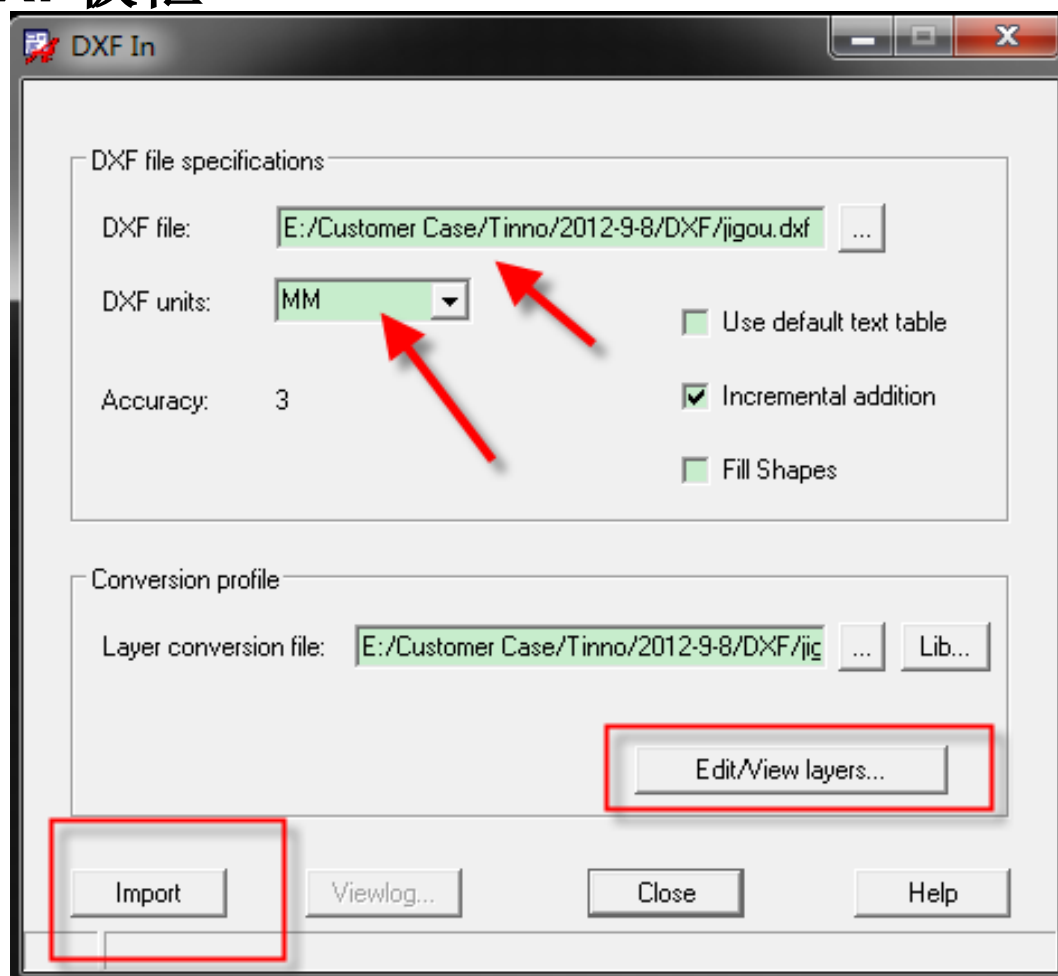
PCB 设计前处理——建立板框

- 手动绘制
 - 放置结构



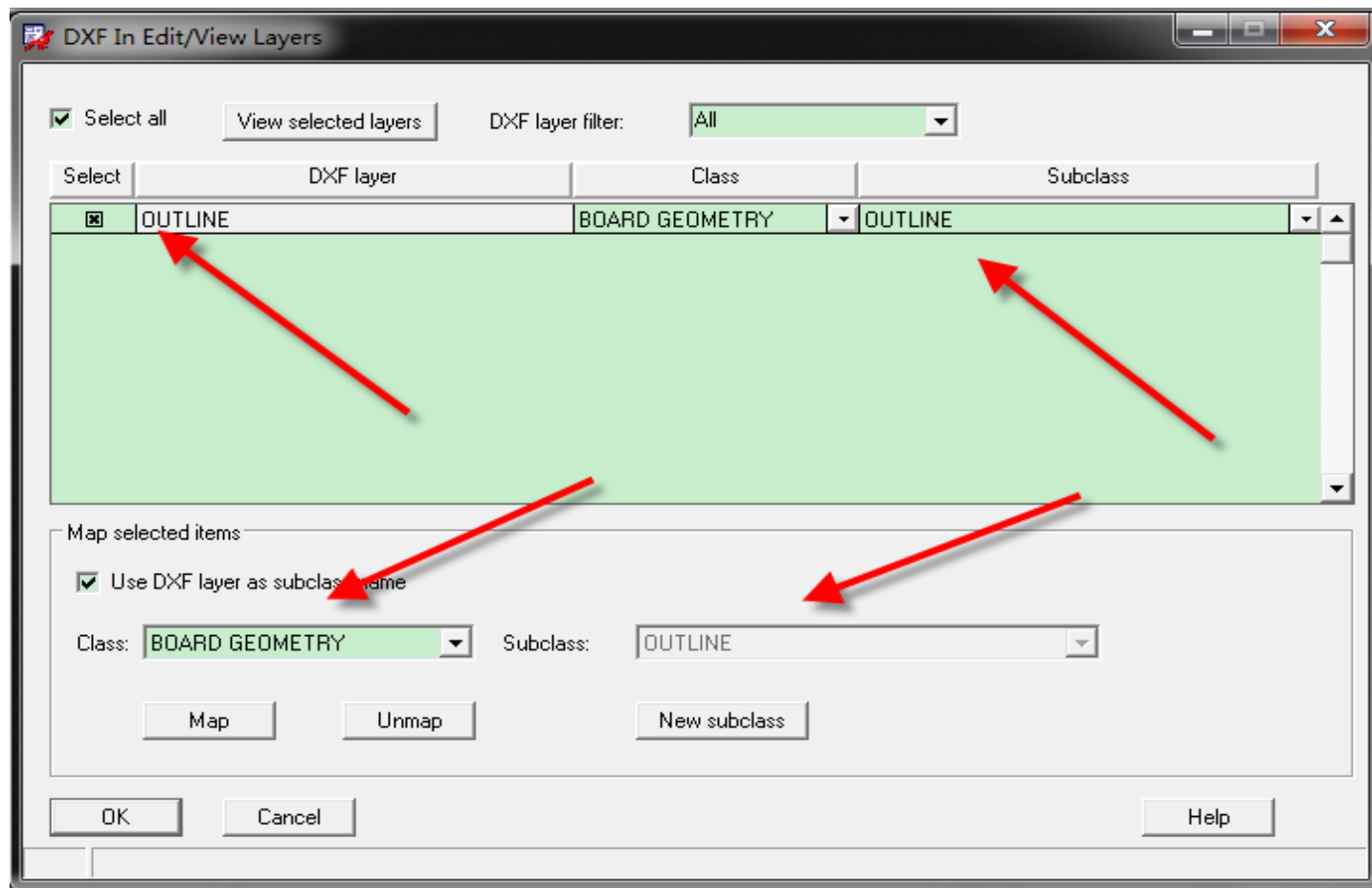
PCB 设计前处理——建立板框

- 导入DXF板框



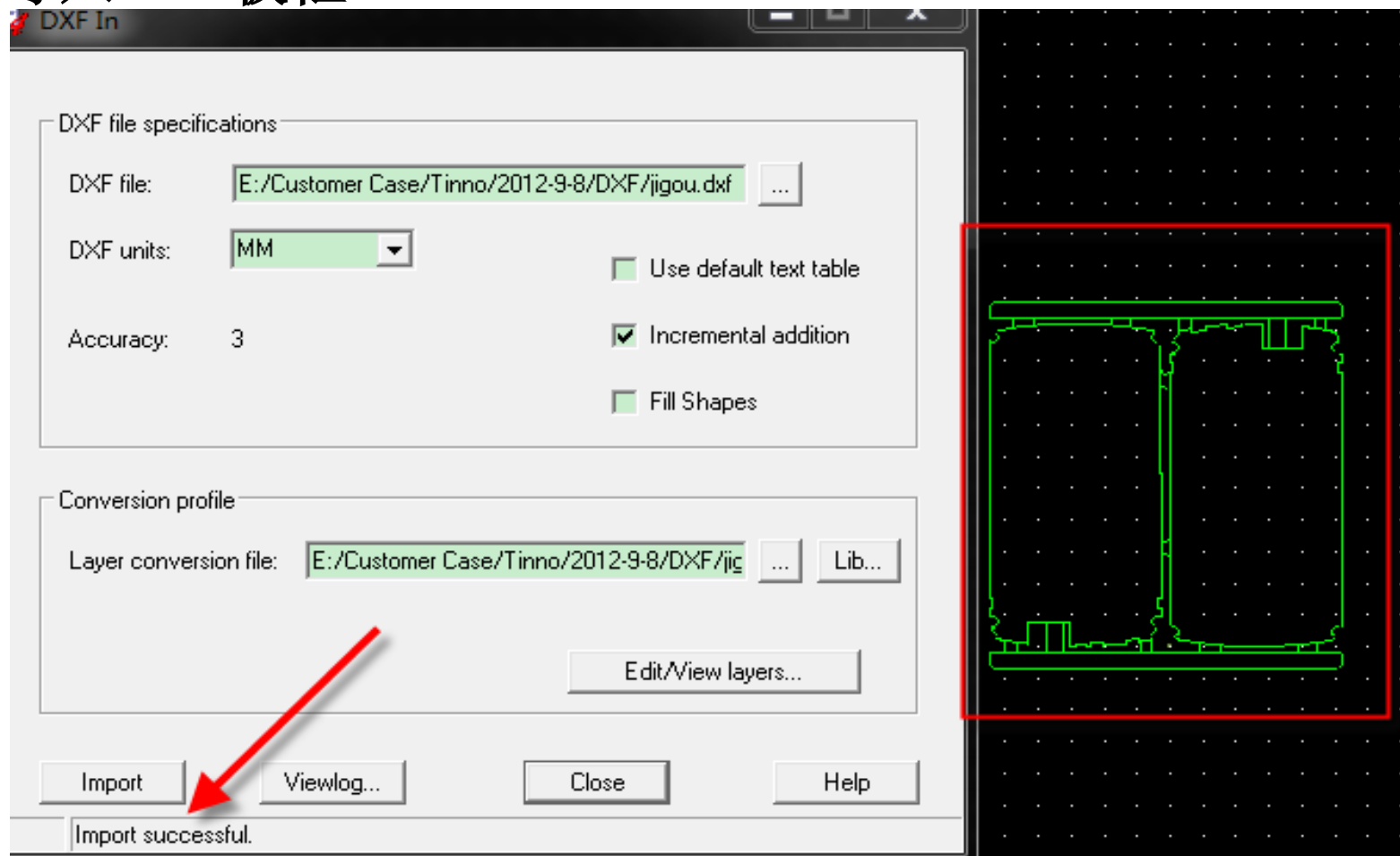
PCB 设计前处理——建立板框

- 导入DXF板框



PCB 设计前处理——建立板框

- 导入DXF板框



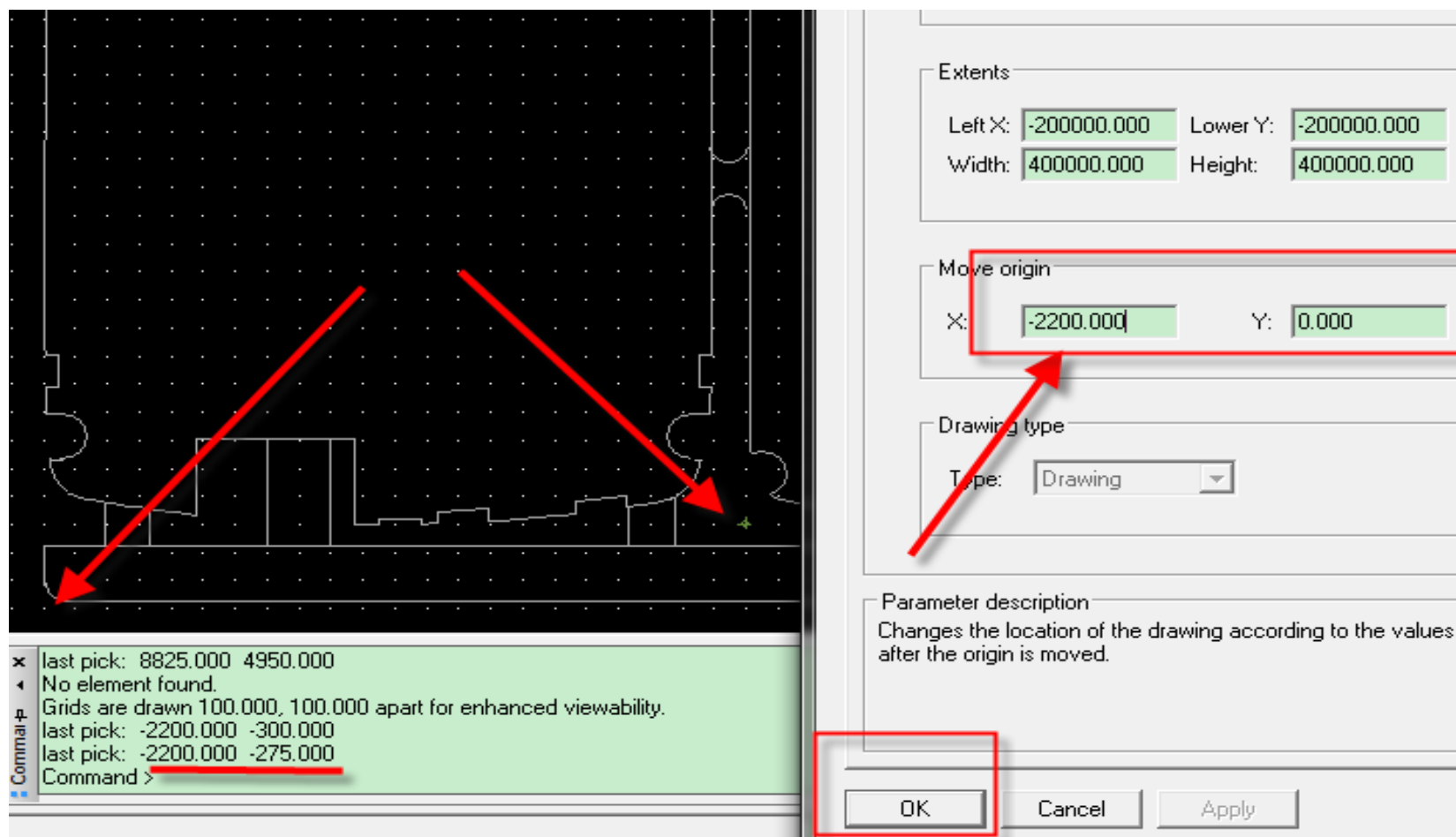
PCB 设计前处理——建立板框

- 设置原点



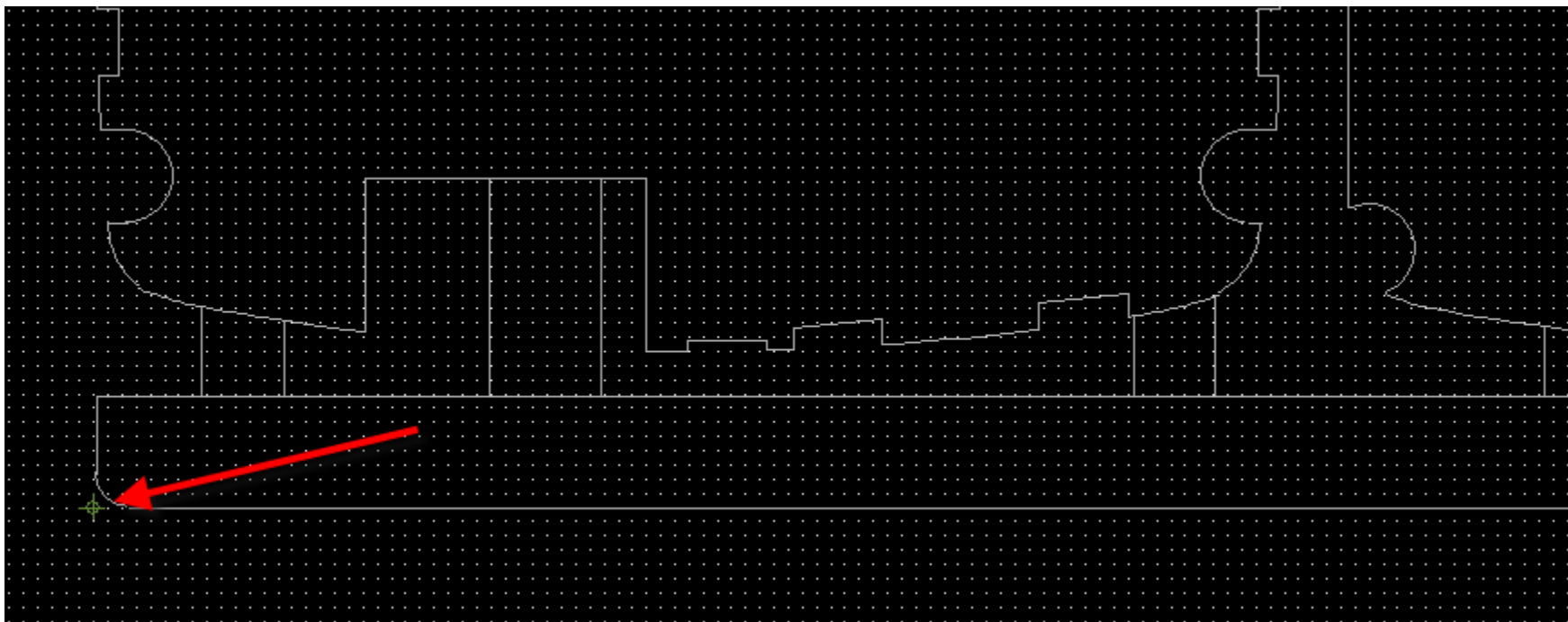
PCB 设计前处理——建立板框

- 设置原点



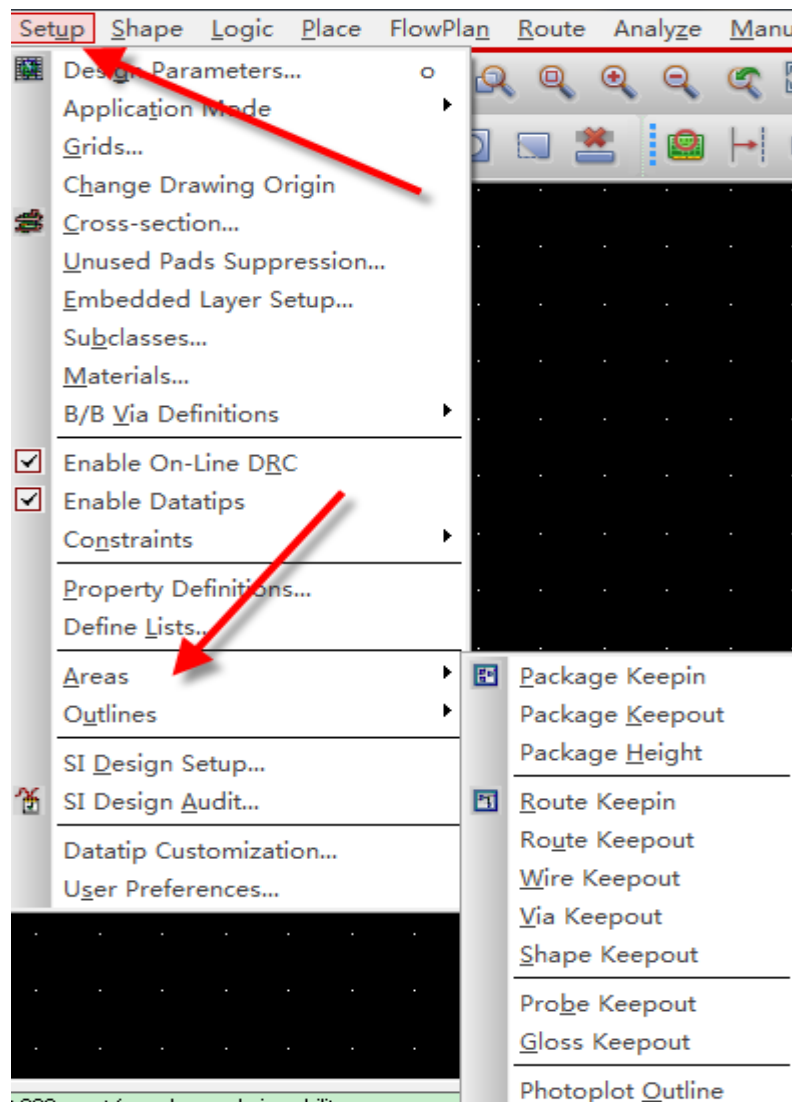
PCB 设计前处理——建立板框

- 设置原点



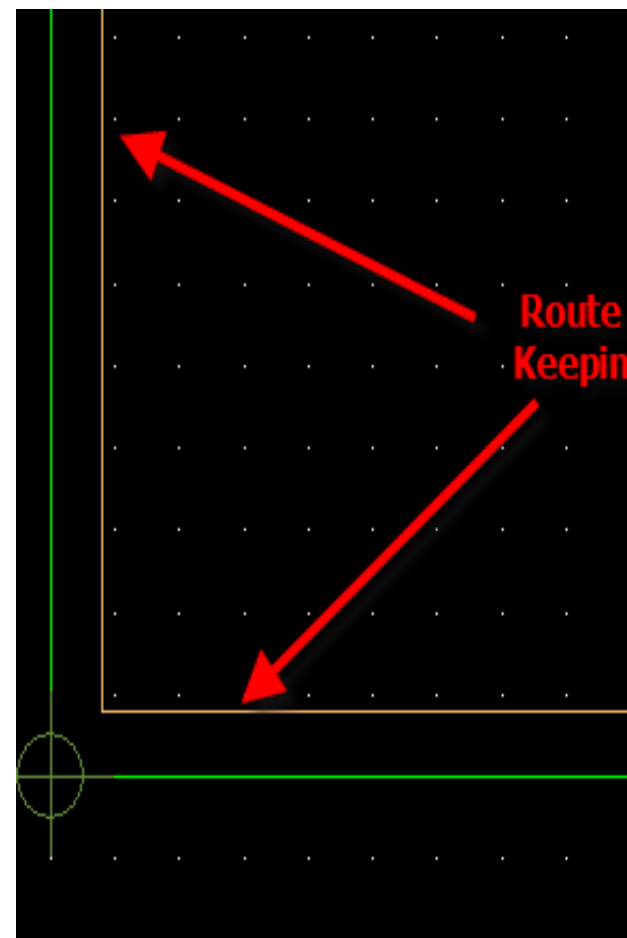
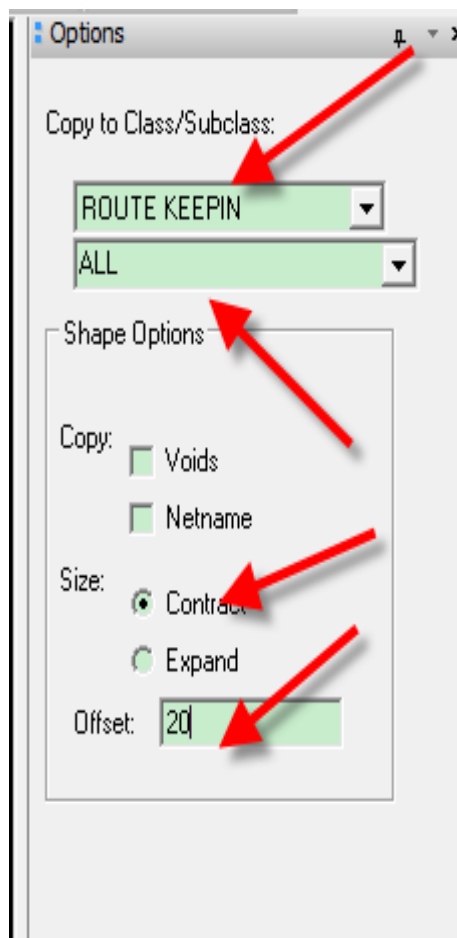
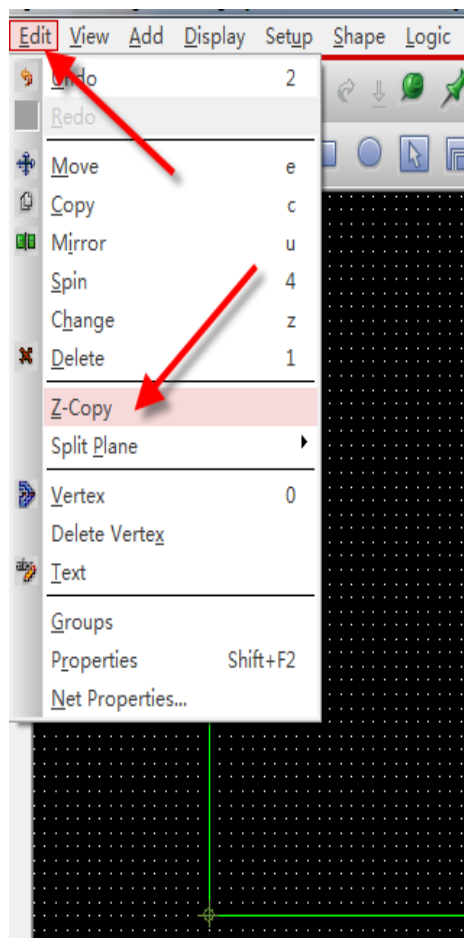
PCB 设计前处理——添加禁布区

- 添加禁布区



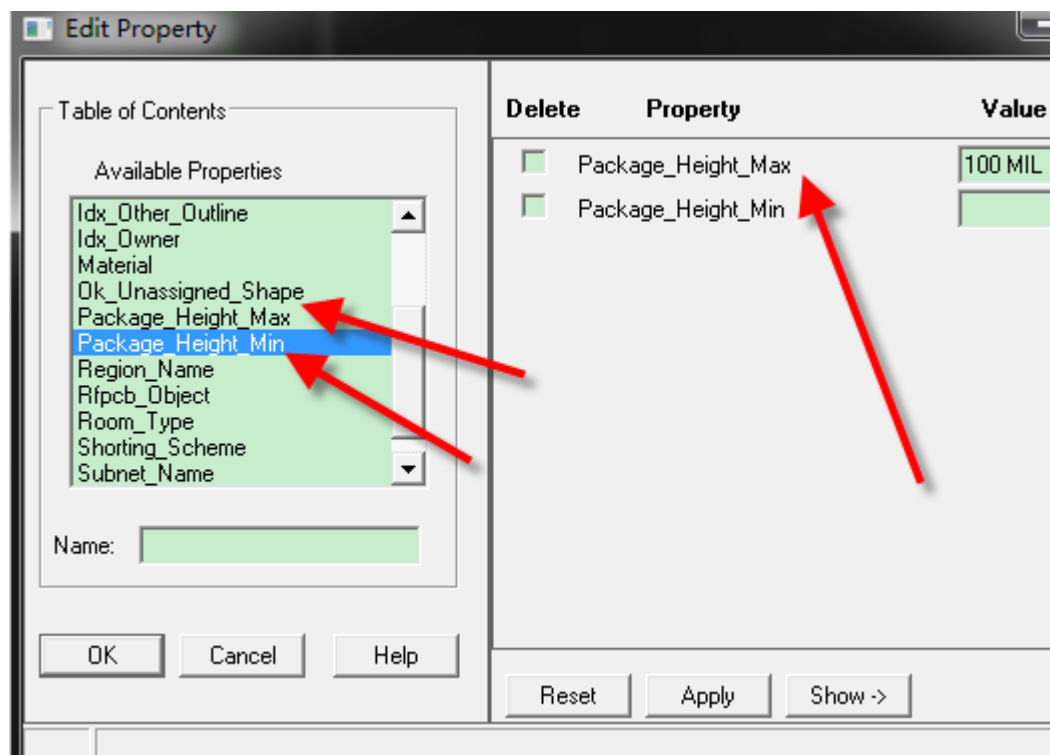
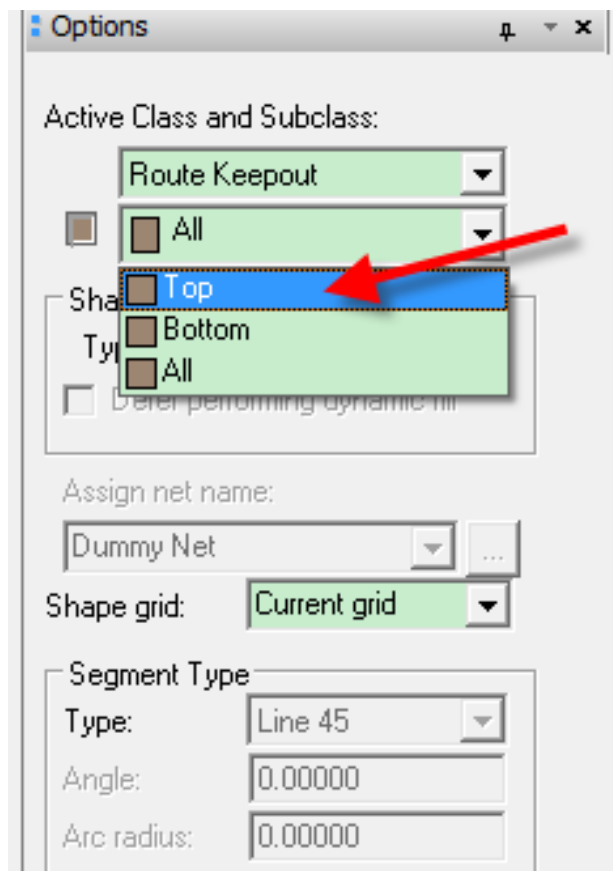
PCB 设计前处理——添加禁布区

• Z-COPY命令使用



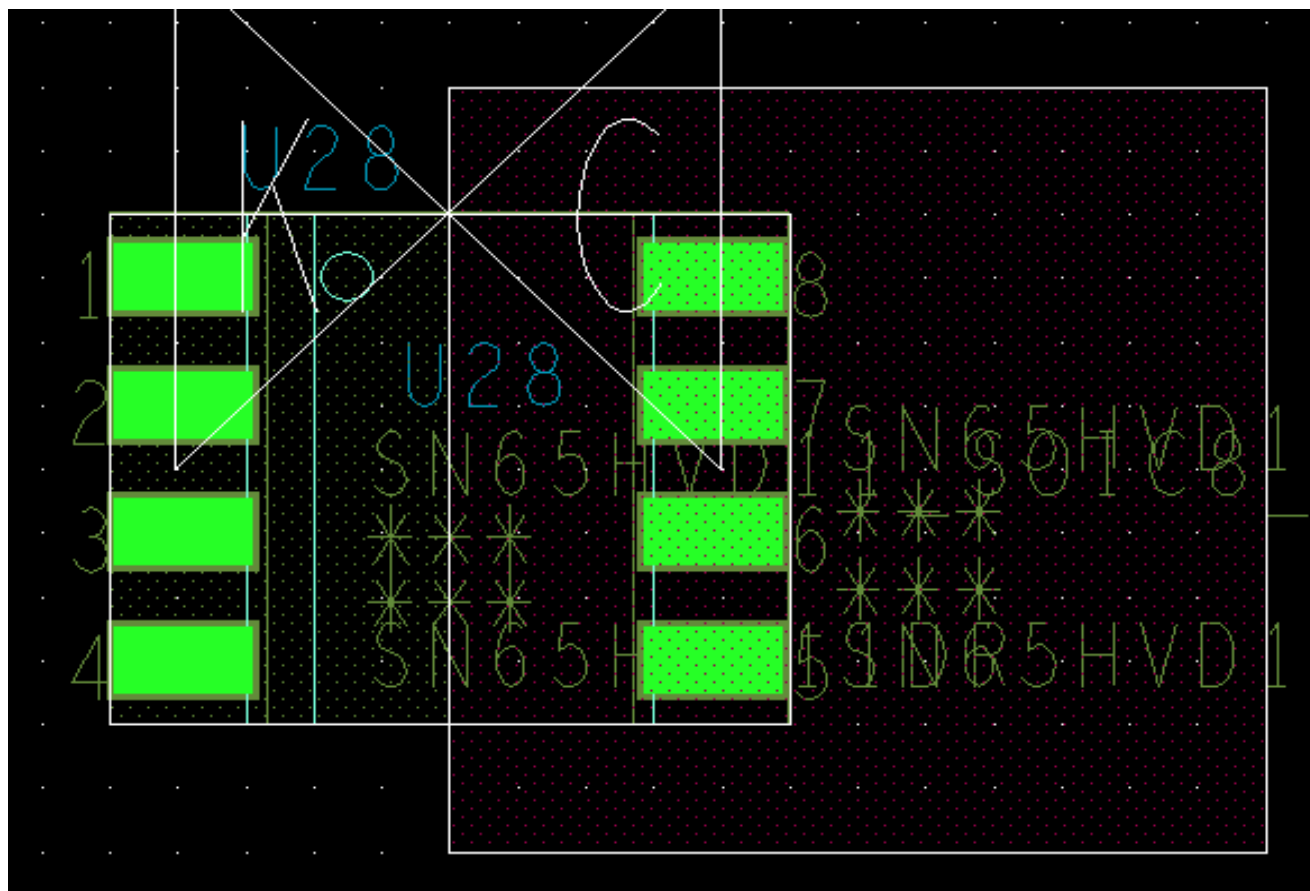
PCB 设计前处理——添加禁布区

- 禁布区分层添加、限高区域添加



PCB 设计前处理——添加禁布区

- 禁布DRC检查



Q&A

- Q&A
- Summary

Thank you!

SEP 8, 2012

By: Ausben Du

ausbendu@comtech.com.cn