CADENCE Module Reuse for QN9020

This document describes how to use the module reuse function of Cadence for QN9020 designing in different application.

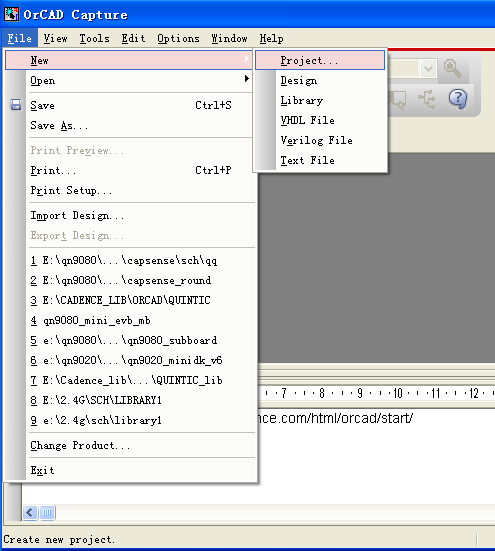
In the following, there is an example to explain how to use this function.

1. Download the qn9020\_module\_reuse.rar file offered by NXP Corporation and extract it into computer’s location of your choosing. E.g. D:\quintic

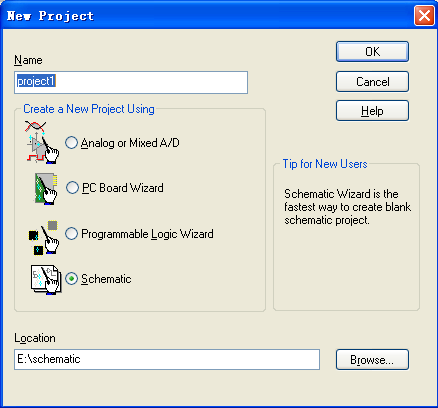


1. Create schematic with Orcad Capture tool

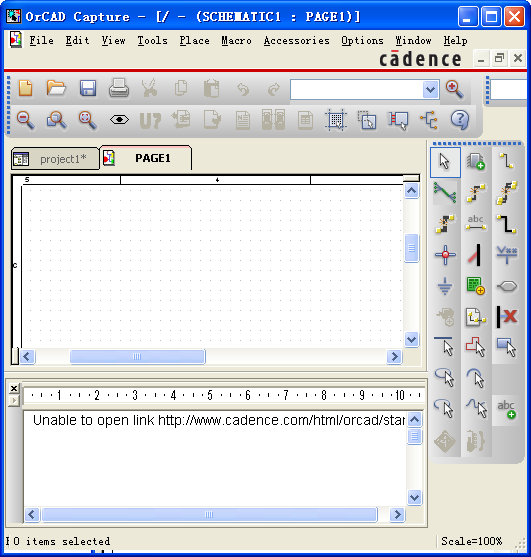
File-New-Project



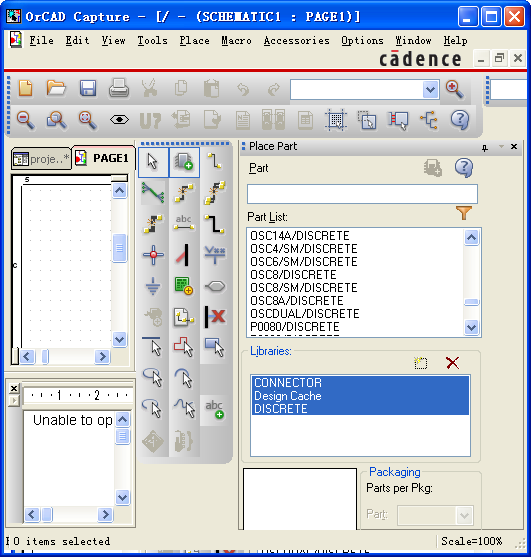
Named project and select location, then press OK



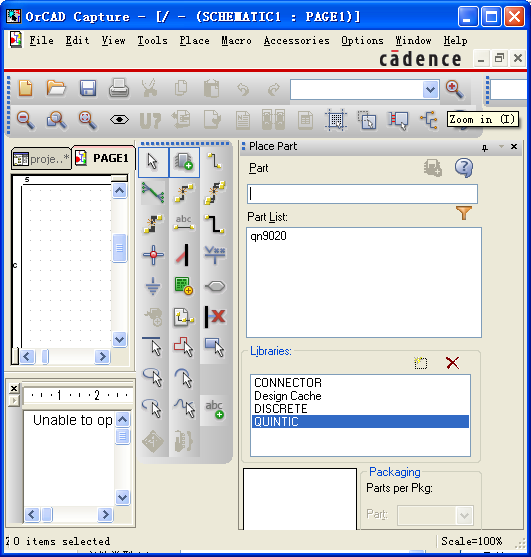
In this screen, press short Key “P” to add the Qn9020 part



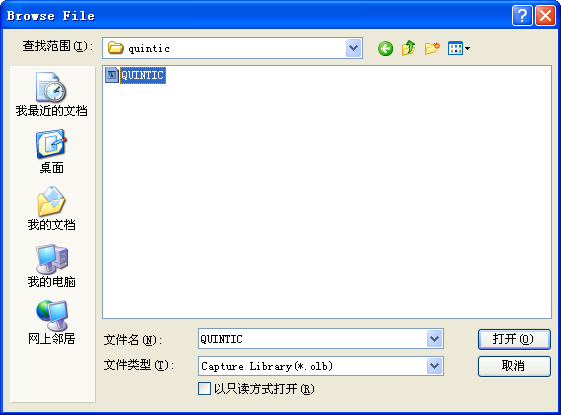
The default library has not contain the QN9020 part, So we need to add the QUINTIC library which contains QN9020 part



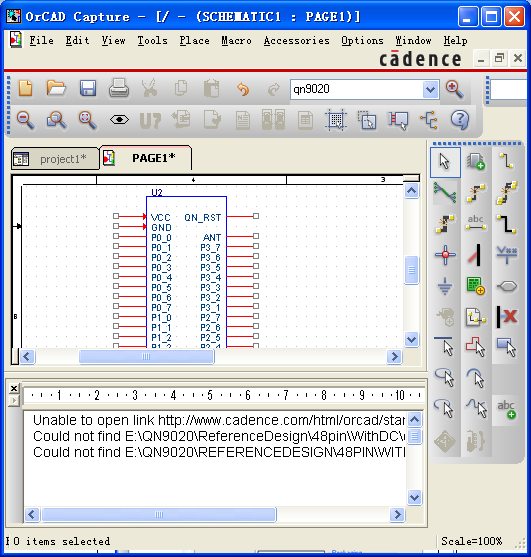
Then the QN9020 part will be appeared in the following screen



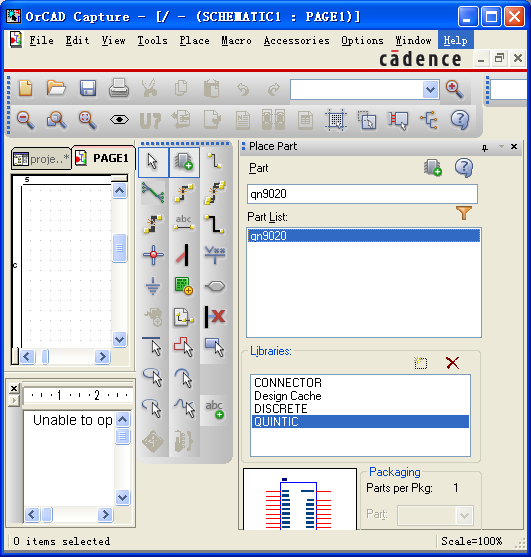
Press short key “Alt+A” to open browse file and select the “QUINTIC.olb”



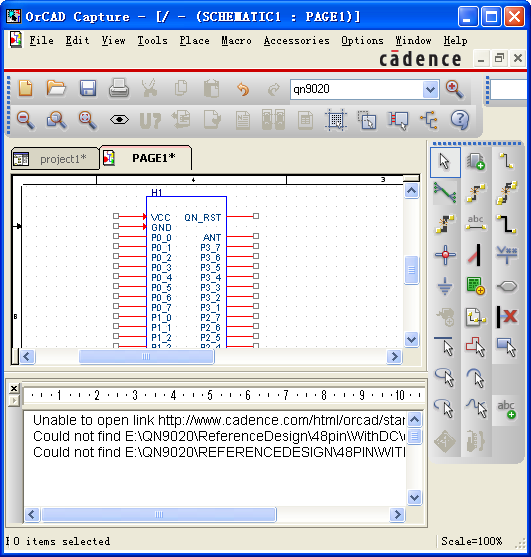
Place QN9020 part on the schematic design window



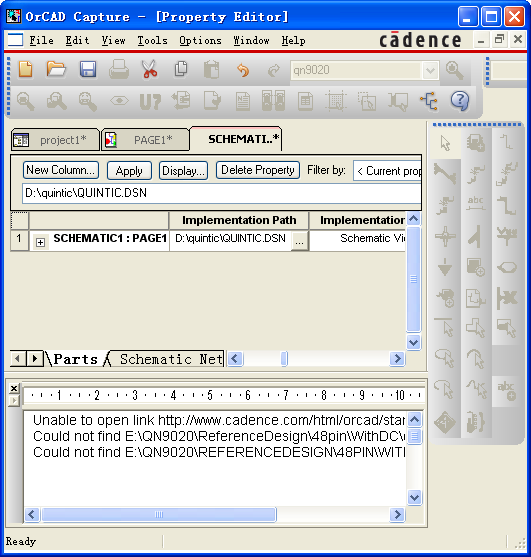
Double click the Qn9020 part



Modify the name U\* to H1

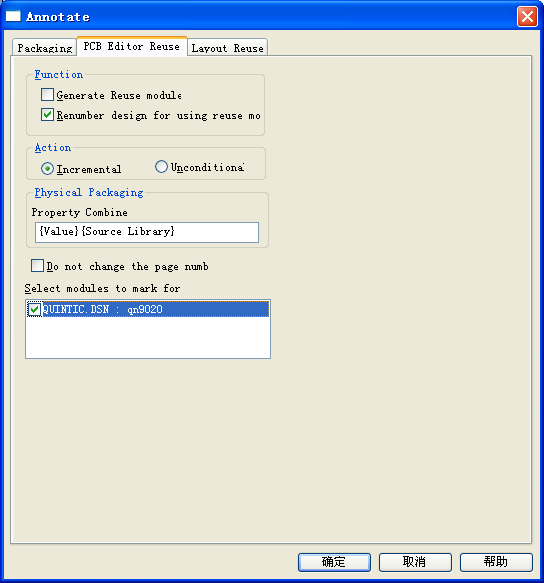


Double click the H1 and assign the implementation path to the above extracted choosing path

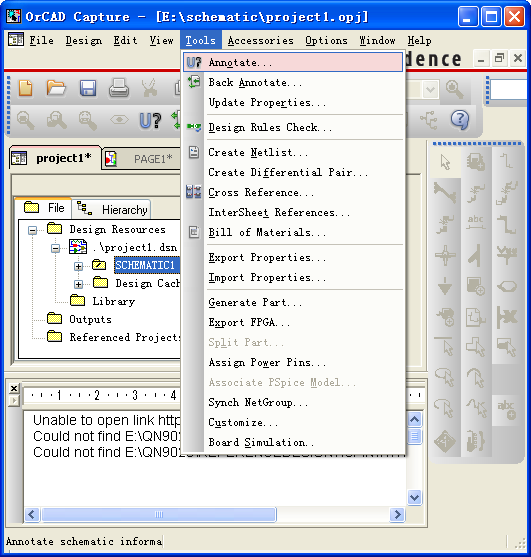


Following the above steps, the part QN9020 module is placed successfully, and you can add the other parts in this design

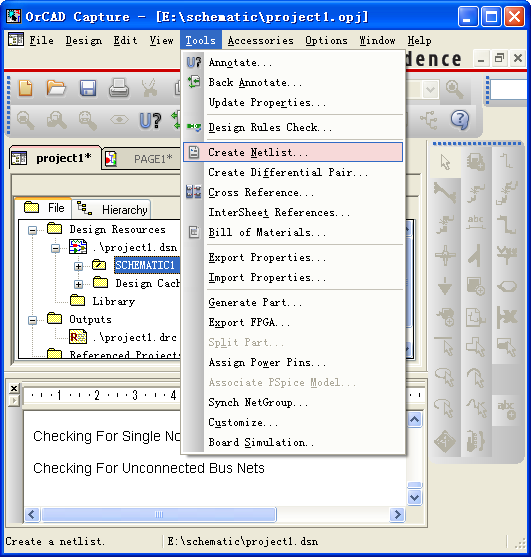
1. Create Netlist



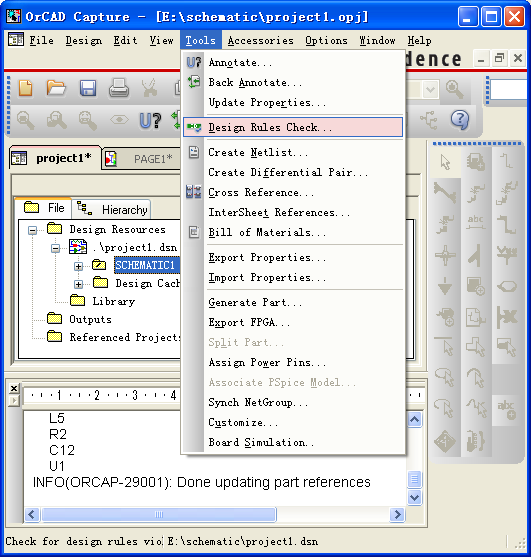
Tool-annotate



Tool-Create Netlist

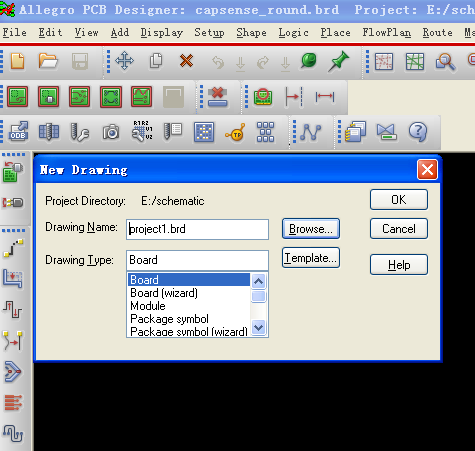


Tool-Design Rules Check

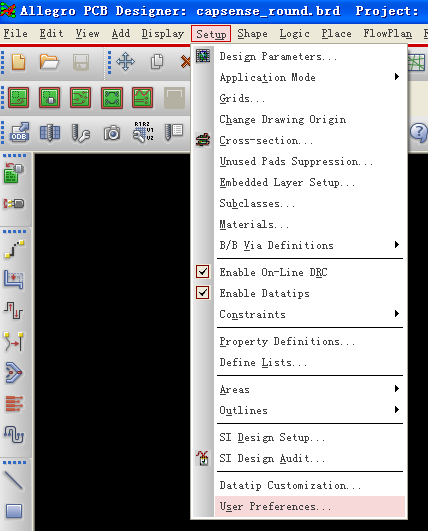


1. Module layout

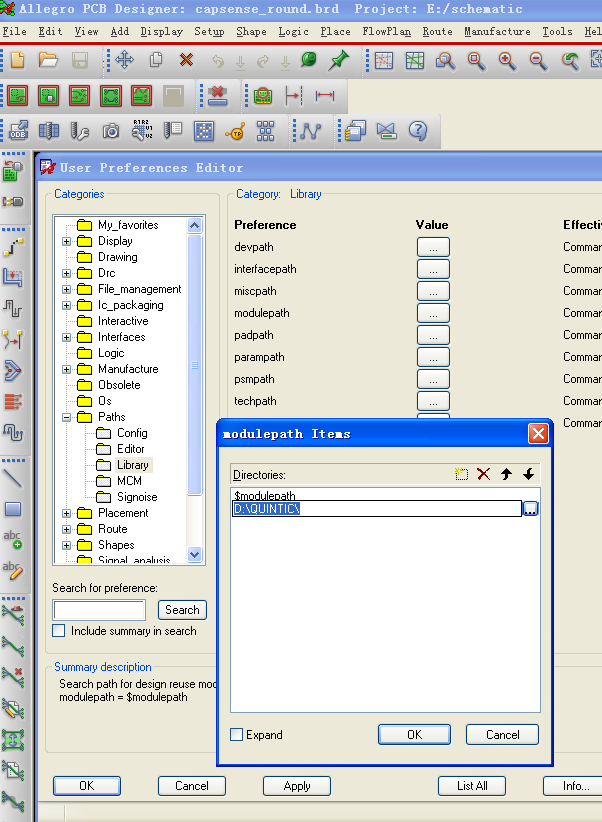
File-New-board and change project directory path



Setup-User Preferences

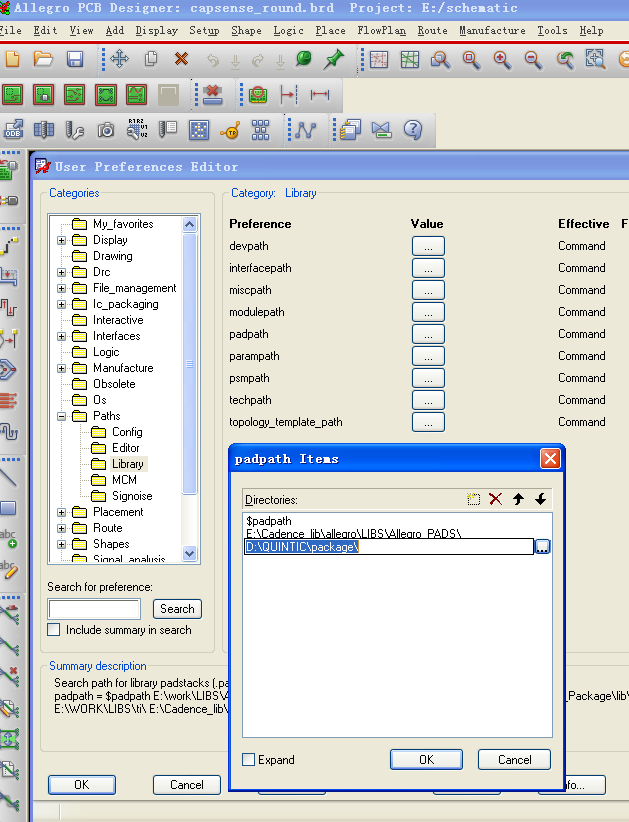


Select Paths-library-module path and add the QN9020 module library directory. e.g. D:\QUINTIC\

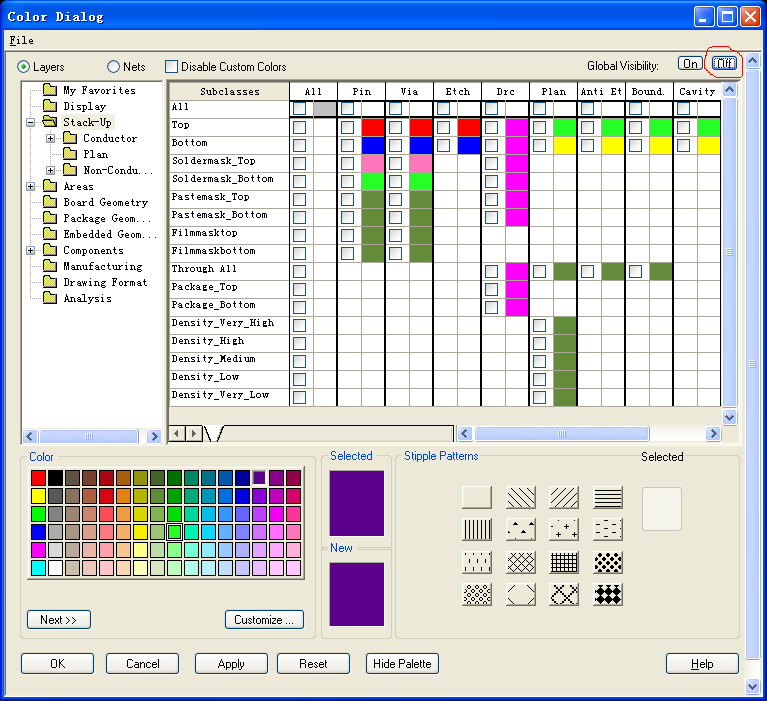


In same way, add the padpath and Psmpath directory.

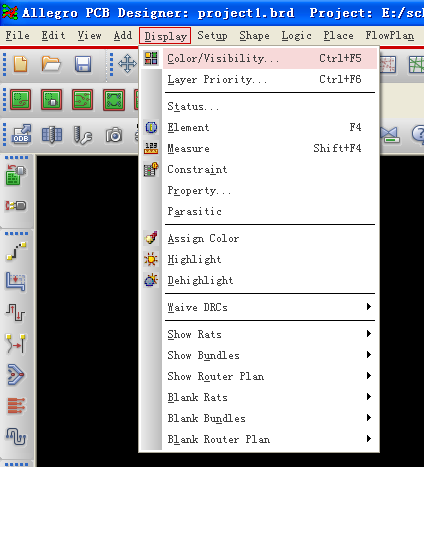
e.g. D:\QUINTIC\package\



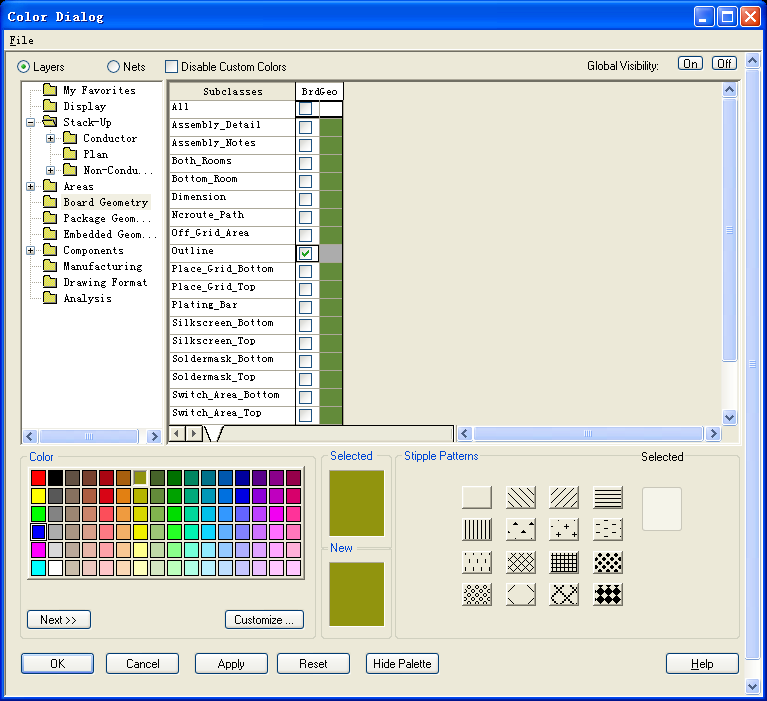
Press “off” marked with red circle to turn off all layer color



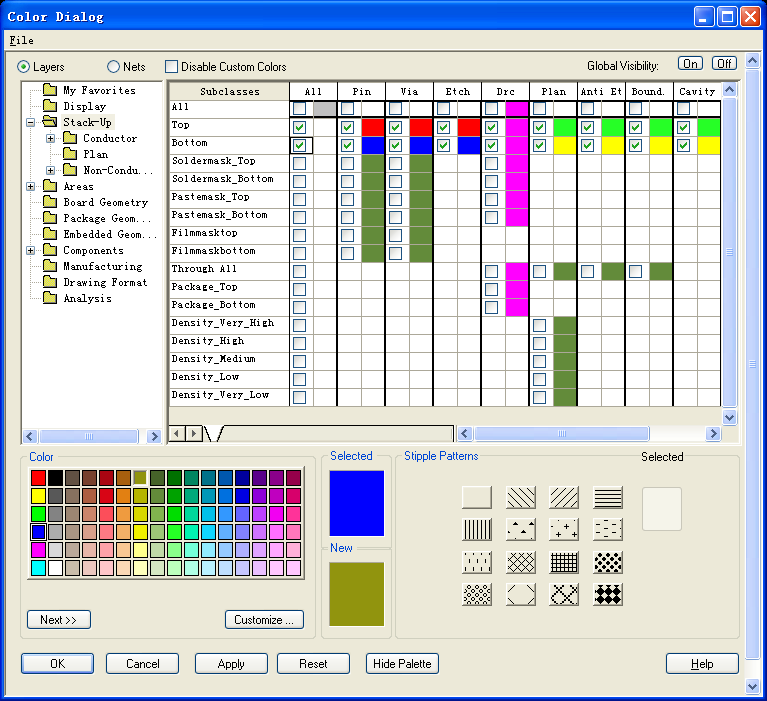
Display-Color/Visibility



Select Board Geometry and assign color to outline

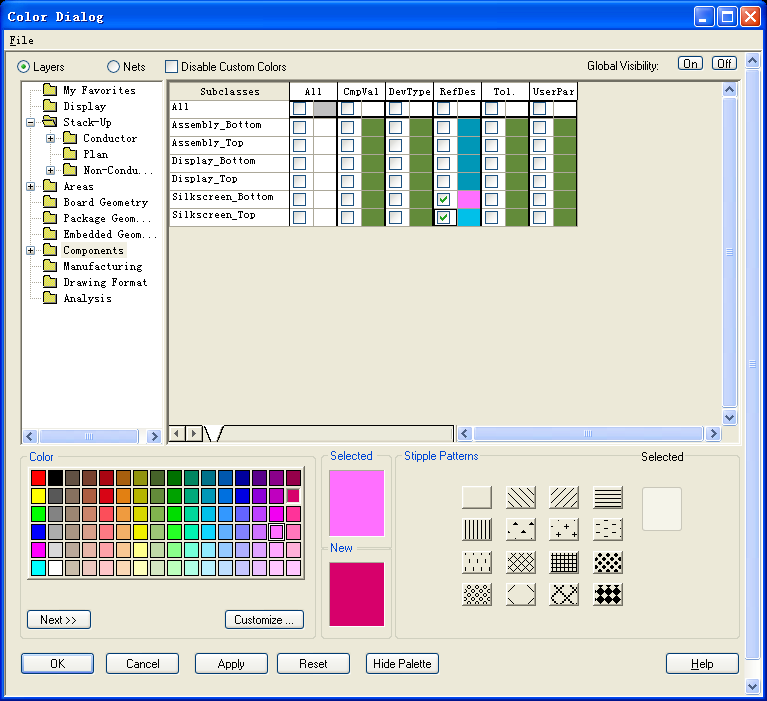


Select Stack-up and assign different color to TOP and Bottom layer

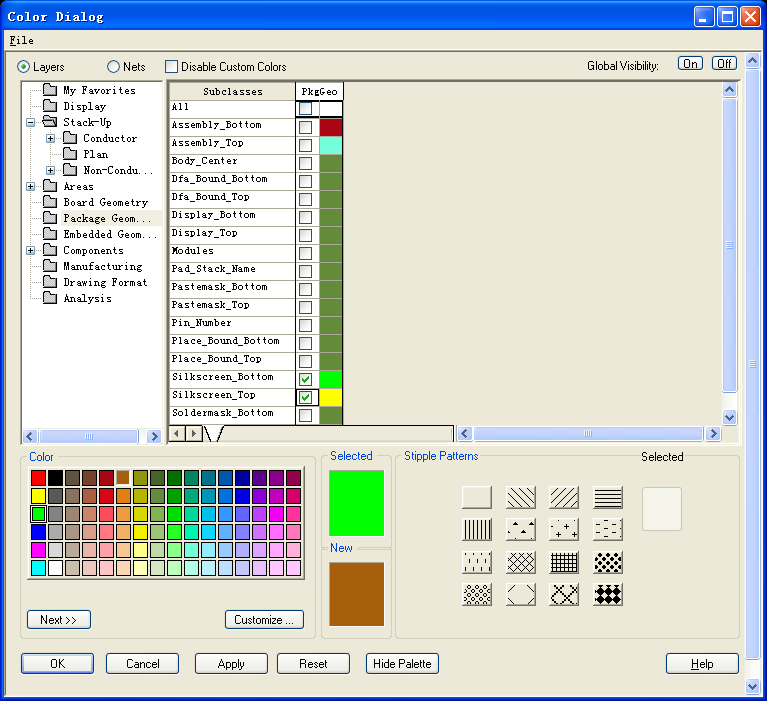


Select Components and assign color to

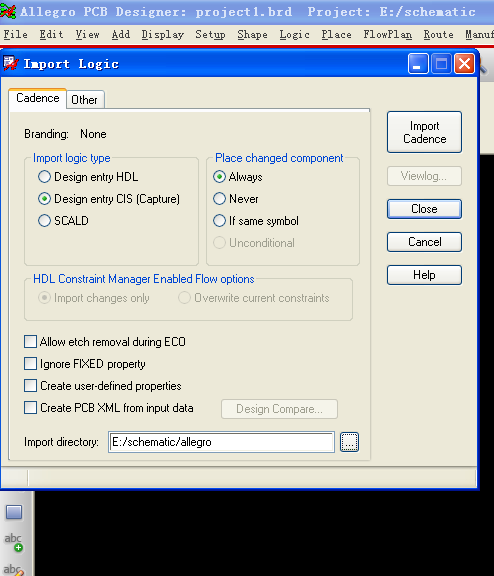
Silkcreen\_top & bottom. Then Click OK



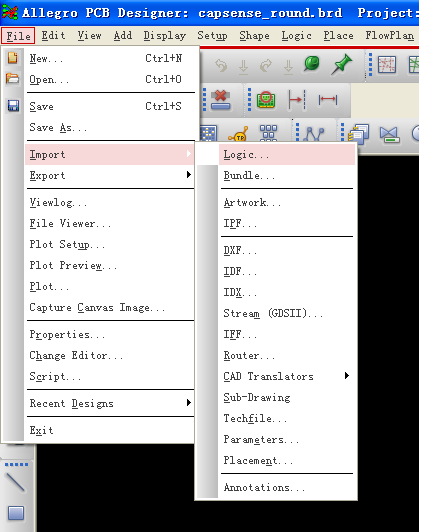
Select Package Geometry and assign color to Silkcreen\_top & bottom



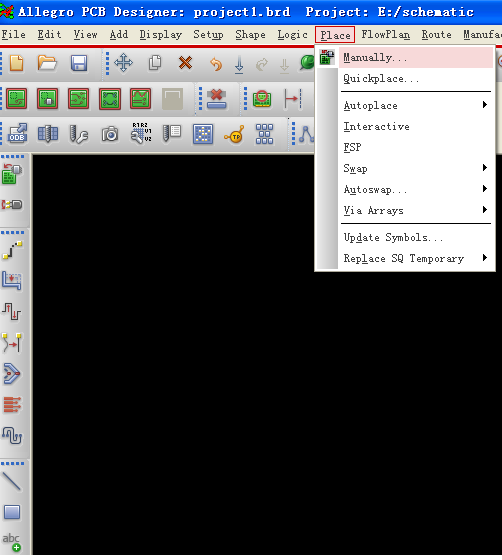
Select Design entry CIS, change the import directory and press “Import Cadence”

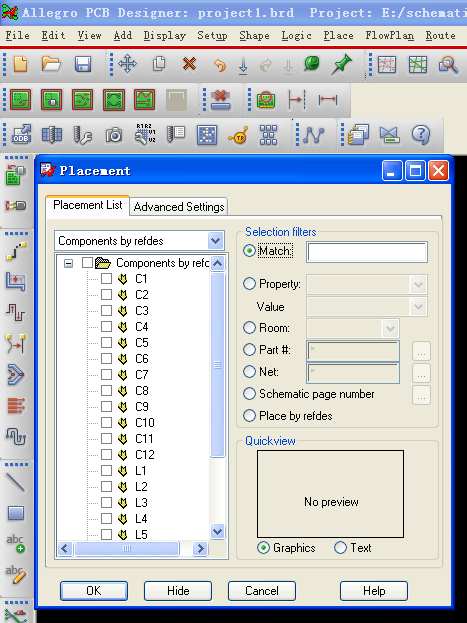


File-Import-Logic

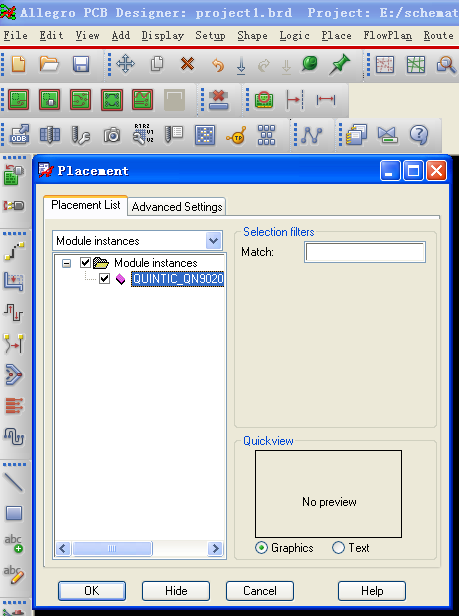


Place-Manually





From the drop down menu to select module instances, the Qn9020 module will be in there



Select the Quitnic\_QN9020 module and Place it on the edit window. Then click OK to close the placement window. The QN9020 module is successful to be reused.

