

# NEW PROTEUS V8.1 RELEASED

We are pleased to announce that the development and testing work on Proteus 8.1 is complete and it is now available in general release. Existing customers can install from Update Manager on the Proteus 8 home page while new customers can download the demo version from our website for evaluation. Version 8.1 is a significant point release, building on the new Version 8 application framework and adding several important features to the Schematic/PCB design modules. These are described in more detail below.

## New Features in Proteus 8.1

### Pads and Footprints

- Draw custom paste/resist on library parts.
- Stitch thermal pads and store in library parts.
- Create fanout patterns for SMT parts and store in library parts.
- Suppress auto-paste and auto-resist on a per pad basis.

### Project Clips / Design Snippets

- Enables re-use of blocks of circuitry inside a project or across multiple projects.
- Can be schematic only or include both schematic and layout information.
- Place full blocks of circuitry on the board in a single click.

### Dynamic Teardropping

- Live addition of teardrops on track-pad / Track-via joins.
- When enabled, is configurable based on both the annular ring size of the connecting pad and required depth into connecting track.
- Individual Pads and Vias can have teardropping enabled, disabled or to match the global setting.

### Arduino AVR Support

- Direct support for Arduino AVR Toolchain inside the VSMStudio IDE.
- New product licensing selected Arduino variants.

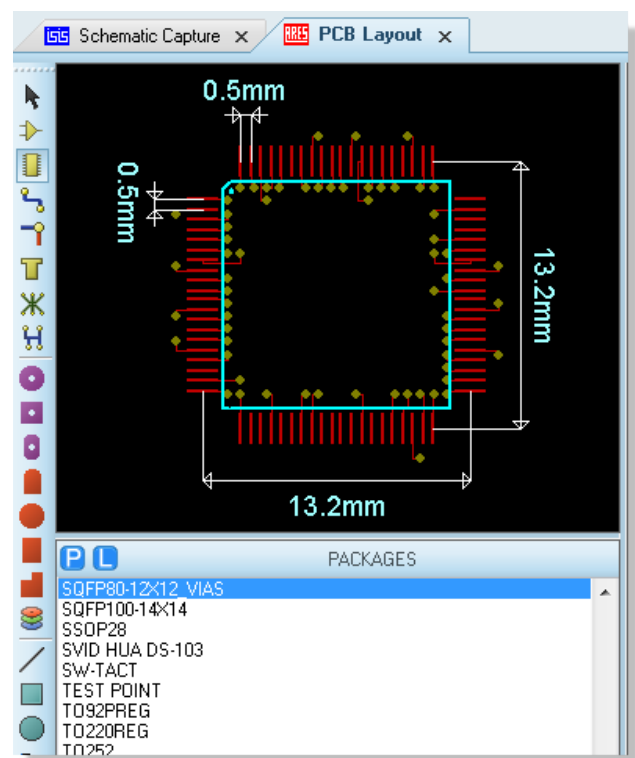
### Overview

The Proteus 8.0 release delivered a new platform as well as host of feature additions. The new application framework also now enables us to bring out many important features that would have been extremely difficult (or impossible) to implement in previous versions. The goal of the Proteus 8.1 release was to start delivering these features and our focus was on four main areas.

### Pads and Footprints

Footprint and packaging requirements for modern packages is a rapidly evolving field. We've looked at our existing capabilities and extended them with a view to flexibility.

The ability to store vias with your library part has been introduced. This enables you both to define a fanout topology for an IC in the library part and also allows you to stitch thermal pads on a footprint (e.g. QFN).



We've added the ability to suppress resist and paste on a per pad basis and then added the ability to draw it for the package itself. This allows you to do things like define a stippled paste pattern on a large SMT pad or to escape a large area of resist around a button pad. All of this information can now be stored in your libraries for re-use in future projects.

Finally, we've enhanced the padstack dialogue form and introduced an isometric preview of what you are creating.

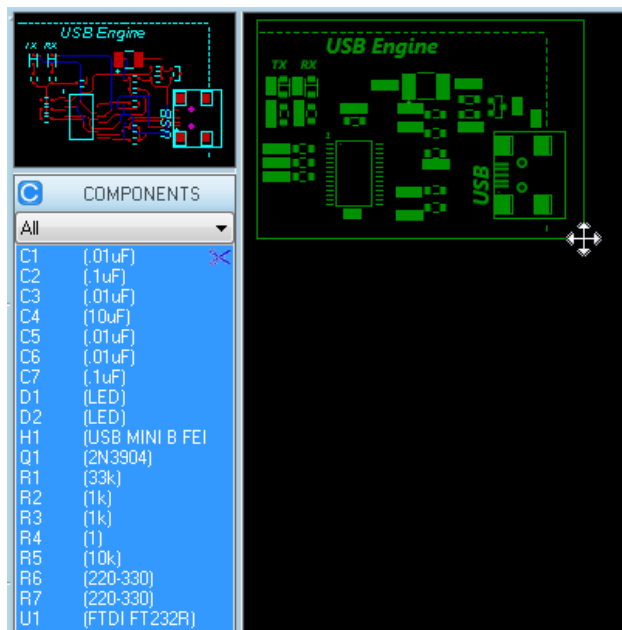
Additional 3D view options are included in the Make Package dialogue form so you can preview the paste and resist configuration of your land pattern before storing it in your libraries.

### Project Clips / Design Snippets

Often, parts of a design are either duplicated inside a project (e.g. different channels of an amp) or across different projects (e.g. power supply). Project clips, also known as design snippets, provides a formal way to store, load and place useful blocks of circuitry.

You create a project clip by tagging a block of schematic circuitry and the corresponding block of layout on the PCB. This is then stored to disk in a PDSCLP file and can be loaded and re-used as required.

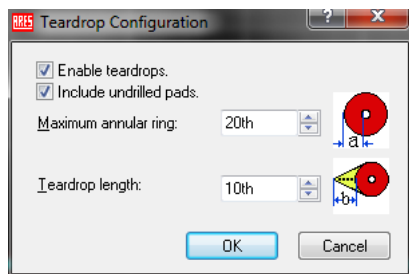
The project clip is placed as a single entity in ARES, after which tracks, footprints and other objects can be selected and edited in the normal way.



### Teardropping

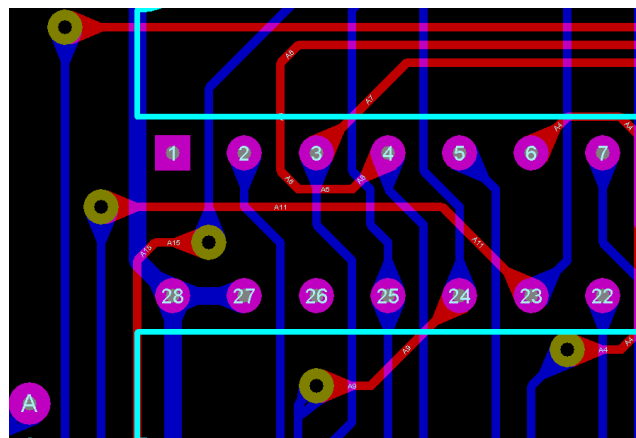
Placing teardrops at the connection point between track and pad is often useful in preventing drill breakout during board manufacture.

Proteus 8.1 includes the ability to automatically teardrop routed tracks.



This is configurable both in terms of annular ring size and also in the depth of track into which to extend the teardrop.

This can be set across the board or on individual pads and vias by simply editing the pad / via itself and changing the settings in the Teardrop drop down box..



### Miscellaneous

In addition to the major feature set summarised above, Proteus 8.1 contains many user-suggested improvements and modifications, including:

- ◆ Support for via-under-smt.
- ◆ Layer set-up added to New Project Wizard.
- ◆ Individually hide/show part references on the layout.
- ◆ Set individual zone clearances on pads (e.g. mounting holes).
- ◆ Added direct support for BASCOM AVR and Sourceboost compilers inside the VSMStudio IDE.
- ◆ Enhanced the fix-up algorithm for connected tracking when a footprint is nudged a small distance.
- ◆ Added models for the PIC10(L)F32x processor variants.

### Arduino AVR Support

Direct support for the Arduino AVR toolchain has been implemented in the VSMStudio IDE. This allows you to develop and prototype Arduino designs directly inside the Proteus application. The new project clips feature is also very useful here as project clips can easily be created for various Arduino shields.



The creation of the schematic for your prototyping environment is therefore greatly simplified as you can simply import project clips to build your design.

## Watch the Movies:

- [❖ Creating Footprints \(QFN\)](#)
- [❖ Project Clips / Design Snippets](#)
- [❖ PCB Teardrops](#)
- [❖ Creating Footprints \(Button Pads\)](#)
- [❖ Proteus VSM for Arduino AVR](#)
- [❖ Miscellaneous Features](#)