PROTEUS LIBRARIES

The Proteus Design Suite provides managed part workflows with integrated Git/SVN control, including versioning, overlays, and local change tracking.

Managed Libraries

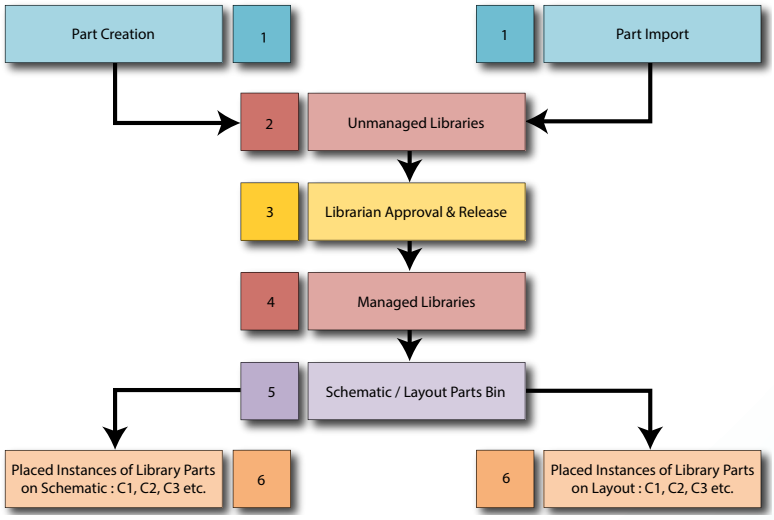
By default in Proteus there is no distinction between a library part supplied by Labcenter, one created by the company, one imported from a web vendor or one you make yourself. You can pick and place library parts from any library and you can edit any property of the part, changing it from one physical part to another in Edit Component by changing property values.

To support customers who require more rigorous control, Proteus offers a managed mode for library workflows. In this mode, a defined set of managed libraries is created and maintained, with part selection limited to only those libraries. Versioning can be handled manually during release, or the libraries can be linked to a GIT or SVN repository. When repo integration is used, the commit hash or version tag is automatically applied to the parts as part of the managed library release process, ensuring traceability and tighter configuration control.

The Library Manager module enables creation of expanded managed libraries and allows approved parts to be moved in from standard libraries. This forms part of the approval workflow, where parts are reviewed and validated for managed use. When changes are made, they can be committed directly to an integrated GIT or Subversion repository from within the Library Manager. Releasing the expanded library then captures the commit hash and log message, embedding this version info into the generated managed library file (.LIB) for use in Proteus designs and layouts.

Auditing tools exist to check both that no unmanaged parts are used in a managed design and to flag if a later version of a managed part is available in the managed libraries. The former might be acceptable in a one off prototype but likely will need attention before the production run of a managed project.

The Manage Changes tool handles the latter case and is useful when a design revision in underway or if supplier conditions change and BOM properties need updating. A per part comparison with the latest version in the managed libraries takes place and any part can be updated with a single mouse click.



"PCB design is our business. We review PCB layout software on an ongoing basis and Labcenter has topped the list for the last 10 years. Certainly the most productive and very, very affordable. We have licences for other very expensive products but they don't get much use."

Donald Kay - Don Alan Pty

MANAGED LIBRARIES

Create and maintain managed libraries of parts with read only properties.

Switch Proteus into managed mode to restrict part usage to the managed library set.

USER ROLE

The user switches Proteus into managed mode via the System Settings. This restricts the part pickers by default to show only those parts in managed libraries. It also makes any managed properties (such as Stockcode, Cost, Supplier, etc.) read only, since the correct values for all of these properties should be set by the librarian in the managed library. Users can override this and temporarily use an unmanaged part (e.g. by turning on web import) while submitting it for approval and the pre-production check will warn if it has not been replaced with a managed part before manufacturing output is generated.

LIBRARIAN ROLE

The librarian is responsible for creating and maintaining the managed libraries and distributing them to users. This includes ensuring all parts are company-approved, have correct managed properties for BOM generation, and are paired with suitable footprints. Repository integration is built directly into the Library Manager, allowing changes to be committed to a GIT or SVN repo without leaving Proteus. Overlays can be used to track local changes before committing, and full version control commands are available inside the application. During release, either the repo commit hash is embedded automatically, or the librarian can manually assign a version number.

REVIEWER ROLE

The reviewer is responsible for auditing the managed project after engineering changes and checking for correct library part usage. Proteus includes two tools to help with this. The pre-production check will identify and warn of any unmanaged components or footprints used in the managed project. This shouldn't really happen outside of perhaps prototype work and the reviewer should find a managed library replacement. Meanwhile, the Manage Changes tool will identify managed parts on the schematic/layout which have an updated version in the managed library. It will also enable a one-click replace of any part with the latest version of the part from the libraries.

MANAGED WORKFLOW

All three roles may be fulfilled by the same person on a single copy of Proteus or by three different people in the organisation on multiple machines The key to success is in the library discipline in creating the managed property set for the parts and then distributing updated managed libraries when changes or additions take place. The managed libraries themselves are just special .LIB files and simply drop into the users Library path. So all users have to do is turn on managed mode, keep their library folder updated and then focus on engineering work. Then, at the end of a revision or development phase the reviewer can double check all the libraries are up to date and then easily verify correct usage on the schematic and layout.

Integrated version control with repo overlays or manual library versioning on release.

Audit designs for managed parts and quickly update to latest library versions.

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