

PartSync

Low Cost "Personal Sized" MRP System for Engineers, PCB Designers and Startup Organizations.

Index Designs

Advantages:

- Easy to learn and use. Extensive "Starter" library with many common components. Includes sample datasheets and 1000s of PCB Footprints.
- Tracks components in Lists, Engineering Stock, Reel Stock, Kits and Shelving.
- Includes search engines for fast location of parts and lists. Supports remote Repository re-sync.
- Provides label and bar code printing / reading for various component functions.

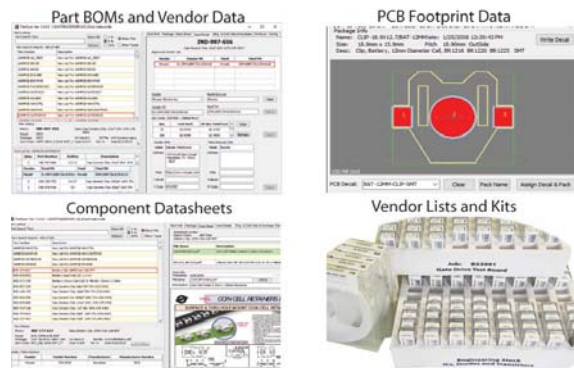
General Description:

PartSync is a desktop database tool for engineers, PCB designers and purchasers where users work as an individuals or in small groups. PartSync manages the parts, part lists, purchase lists, kits, part labeling and bar coding tasks associated with the design and engineering of electronic assemblies. Unlike large expensive corporate wide MRP and ERP systems PartSync focuses on the engineering tasks associate with PCB modules and their assemblies. PartSync is the perfectly size system for consultants, PCB designers and startup organizations.

PartSync avoids the complexities of larger client server systems and instead uses the simple JET/ACE database tools now included with Windows OS. These tools operate with a single .mdb or .accdb files hosted on either the client PC or on a file share on the local LAN. LAN hosted files support multi-user access while additional logic provides off line operation and synchronization with remote "Repository" databases.

The database design uses surrogated keys and linked lists to support simple lists and full hieratical lists of lists. User part numbers can be changed without breaking internal lists. Additional logic supports 3 stocking types (engineering, reel and shelving) as well as assembly kits. Each user part number includes a multi-source Approved Vendor List (APL) with each sourcing entry including manufacturer information, part number and multi-level pricing.

Additional logic provides for a shared datasheet library based on .pdf files where datasheet files are sorted and indexed to individual part numbers. A special page 1 caching system allows instant review of a datasheet first page. A large set of component footprints is included to assist with PCB design.



CAD Tool Interfaces:

Part list inputs from CAD tools are accepted in .txt, .csv or .xls format. Extracted CAD data is used to select existing parts from the PartSync local database using text, Vendor PNs or Manufacturer PNs. A hierarchical directory structure (rooted locally or via a file share) is used to organize design projects by Customer and Job Name. The various working files and reports for a job are stored in these CustomerName\JobName directories.

Once a schematic BOM is collected PartSync generates a list of component footprints used for PCB design setup. This technique greatly simplifies the CAD libraries in both schematic and PCB tools. Instead of libraries loaded with attributes ("Heavy") libraries are simplified and now "Light". Schematics are simplified, contain fewer errors and can be worked on by different designers using different symbol libraries.

Part Lists, Kits and Vendors:

The goal of a design process is to generate and define all the data required to build a working product. While connectivity in schematics and PCB routing is crucial, so is the list of materials required for purchase. Lists must include vendor, part numbers (vendor and/or manufacturer) and quantities. This data must be organized and maintained, but such tasks are outside the scope of schematic and PCB CAD tools. Part lists from the PartSync database are used to form purchase lists. Received materials form kits which, when complete, go to locations for assembly.

Corporate MRP Integration:

As organizations grow integration with accounting, MRP and ERP systems is required. PartSync includes logic to support remote Repository databases similar Version Control systems used in software development. Contact us for details.