**PackStak Pro**

PackStak Pro, a smaller module of TOPS® Pro software, provides users the ability to design new ship cases or cartons around fixed-sized primary packages. It also designs pallet pattern based on the dimensions of a master carton and pallet restrictions, as well as to calculate stacking strength and truck configuration. Cartons can be loaded into truck as floor loads or pallet loads.

**Benefits**

- **Savings**... With PackStak Pro, users can improve the bottom line by reducing packaging, transportation and storage costs by **5-20%**.
  - Optimize pallet patterns to allow more products to be stacked and improve load stability.
  - Optimize shipping case sizes for less corrugated usage.
  - Calculate stacking strength to determine the best board grade, cut corrugated cost and minimize damage during transit and storage.
  - Reduce transportation costs with optimized cargo loads.
  - Improve productivity by decreasing the time and errors in the packaging and loading process.
  - Improve communication among all functional groups.

**Why TOPS®?**

TOPS® has been offering packaging design and palletization software since the mid-1980’s. It currently has over 7,500 installation base worldwide, including corporate-wide licenses for major players in the corrugated, food & beverage, technology and pharmaceutical sectors.

TOPS® offers the best customer service and support in the industry. Its financial stability assures support for your software purchase for years to come.

TOPS® owns all of its products source code and allows full custom integration of TOPS® applications into your existing enterprise solutions.

**User Friendly Software**

- **Ease of Use** – Pop-up tool tips and menus provide online help and quick access to commonly-used functions.
- **Rich Graphics** – A real-time 3D graphics engine provides quick and realistic renderings for primary packages, shipcases, pallets and cargo loads. Rotate 3D graphics to get different views of package designs and pallet solutions. Paste-on graphics provide realistic views of the solutions.
- **Email and Export options** – Easily share packaging and load solutions via e-mail. Directly export reports in PDF, JPG and pre-defined Word templates. Easily integrate solutions and data with other systems via XML format.
- **Multiple Language Support** – Support over 10 different languages including Simplified and Traditional Chinese, Japanese, Spanish, French, Italian, Portuguese, German, Dutch and more.
PackStak Pro Functions

Primary Pack Sizing
- Determine the best size and arrangement to package a product.
- Support bottles, milk cartons, bags, tubs, stand-up pouches and blister packs.
- Apply graphics to create realistic packages.
- Simply enter the dimensions and apply graphics - a 3D rendering of the product will come right on the screen within seconds.

Pallet Building
- Automatically generate different pallet patterns for straight loads.
- Specify overhang and underhang.
- Use a slave pallet or add a raised platform for shipcases on the pallet.
- Restrict unitloads to certain pattern styles.
- Add labels, caps, pads, slip sheets, straps, corner posts and more.

Combining Pallet Patterns
PackStak Pro automatically generates different pallet patterns for straight loads. Users can pick the one that best meets their needs, be it for cubic efficiency, for store displays, for load stability or for inventory keeping. Simply point and click on the pallet pattern editor and the software will automatically change the pattern. Users can also combine two pallet patterns in the same unit load to meet their specific needs.

Compression and Stacking Strength Analysis
PackStak Pro offers a host of mechanical and environment analyses to ensure savings in corrugated costs and minimize damage during transit and storage. It uses the McKee formula along with other factors to calculate stacking strength results based on Edge Crush, Ring Crush, or Kellicut results. Users can enter their own paper and board values as well as to filter out values for quick reference. Stacking strength is also available for non-RSC boxes as a relative percentage of RSC strength.

Vehicle Loading
- Load a single product directly as floor loads or as pallet loads.
- Allow pallet loads and loose-filled items at the same time to maximize cube yield.
- Quickly visualize the best way to maximize floor space and cubic efficiency.
- Choose from an extensive database of trucks, railcars and sea containers or define your own transit vehicle.

RFID Analysis
The RFID location optimizer helps users find the best shipcase location for RFID tag placement for maximum readability. Users can also specify the shipcase face and position to place tags. (Feature to be released in third quarter 2007.)

Versatile Reports
- Create reports with different layouts.
- Realistic 3D views of primary pack, shipper, unitload and vehicle.
- Statistics for unitloads and vehicle loads.
- Comparison reports between load solutions or analyses.
- Save reports in XML, JPG, PDF, ASCII formats and more.
- Send reports via e-mail or share over a network.

Share Specifications over Company Network or World Wide Web
PackStak Pro’s web publisher allows users to convert packaging specifications into web pages for the Internet or a company’s Intranet to share among colleagues and customers.
The PackStak Pro Design Process

1. Control Panel:
   - Specify the design sequence for the analysis
   - Click on the graphic icon to add respective step
   - Choose from sequence to include primary pack, shipcase, pallet and transit vehicle

2. Define Parameters for each Specified Step:

   Primary Pack: Select the primary package and enter the dimensions, weight and other parameters, if available for that shape. Users can specify the unit measure as well as the orientation of the package when placed inside the shipcase.

   Shipcase Parameters:
   PackStak will determine the dimension of the shipcase for the selected primary package. Users can specify primary pack quantity, unit of measure, orientation of the shipcase when loading onto pallets by checking the corresponding boxes under “Vert”, that is, to check off the dimensions that are allowed vertical during loading.

   UnitLoad: Select the pallet to be used from the PackStak database or create a custom pallet as desired. With unit load, users can:
   - Specify its maximum height in actual value or by limiting the number of stacked layers
   - Set the maximum weight for the unit load
   - Specify the amount of overhang or underhang allowed
   - Use of slave pallet or a raised platform
   - Add labels, straps, corner posts and more

   Vehicle Parameters: Select the vehicle to be used from the PackStak database or create a custom sea container or trailer as needed. Users can:
   - Load loose items to fill the void space not used by the unit loads
   - Allow PackStak to use different unit load heights to cube out the vehicle
   - Limit the style of loading patterns
   - Specify how the loads will align inside the vehicle

3. Solutions:
   PackStak provides different solutions on primary pack arrangement which determines the shipcase size. Users can also pick the pallet pattern and how the unitloads will be loaded into the transit vehicles for the analysis.

4. Reports:
   PackStak provides a versatile report format where users can define what graphics and statistics to be included.

PackStak Pro Saves Packaging and Freight Costs 8-15%
How to Save Money with PackStak Pro

Reduces Corrugated Use by Optimizing Shipcase Sizes

By picking an alternate shipcase for the primary pack, board area is cut down by 17.15% while retaining the same cubic efficiency.

Ships More Products by Optimizing Pallet Pattern

Improvements made by using a different pallet pattern include:
- One more shipper per layer
- Five more shippers per pallet
- Area efficiency up by 10.45%
- Cubic efficiency up by 10.34%

Saves Shipping Costs with Container Optimization

Provides up to 50 different plans for straight loads. An optimal plan can load more shippers with the same resources.

System Requirements

- **Platform**: Windows 95, 98, NT, 2000, XP and 2003
- **Network**: Any (Need only a file server)
- **Processor**: Pentium 400 MHz or faster
- **Hard Drive Space**: 40 MB minimum
- **RAM Required**: 128 MB, 256MB recommended
- **Code**: 32-bit
- **Compiler**: Microsoft Visual C++ 6.0
- **Framework**: 32-bit XVT 5.0 and Microsoft Foundation Classes
- **Database Format**: 32-bit C-Tree
- **Import/Export**: Uses ASCII comma delimited text files
  - Compatible with most document management systems, spreadsheets, databases and mainframes. Include Excel, Access, Paradox, AS400 and Unix platforms

Software Maintenance and Support

TOPS® has an expert team to provide outstanding technical support and services including:
- Unlimited technical assistance.
- Free software upgrades for the one year subscription.
- Toll-free access (USA only) during TOPS office hours
- One full day of free training set at customer’s convenience*
- Unlimited technical assistance.

For more details, call 972-739-8677 or visit our web site at www.topseng.com