

MULTIPACK

Packing Management



What is MULTIPACK?

Multipack uses state-of-the-art optimization algorithms to quickly generate efficient packing plans for a given set of products and containers. Multipack produces packing plans by partitioning a container into a number of blocks where each block is packed with items of a single product type.

Multipack supports:

- **Production of packing plans for rectangular boxes, cylinders and cup shaped products**
- **Presentation of these plans as sectional diagrams and full 3D visualizations**
- **Production of printed reports containing detailed plans and plan metrics**

PSL currently have a limited number of focus group licences available for the MULTIPACK product. If you would like to participate in a short email/telephone discussion on how MULTIPACK could be improved for use by your business in exchange for a free focus group licence please contact PSL at registrations@pslopt.co.uk.

Installation

Unzip the file MULTIPACK-demo.zip and execute the file MULTIPACK.MSI. Once the application has been installed you may execute it by clicking on the desktop icon that is created by the installation process. Alternatively run the file MULTIPACK.EXE from the BIN directory of your installation folder.

Restrictions

This installation is a fully functional system and is licenced free of charge and under no obligation for a period of 30 days.

MULTIPACK

Packing Management



Using the system

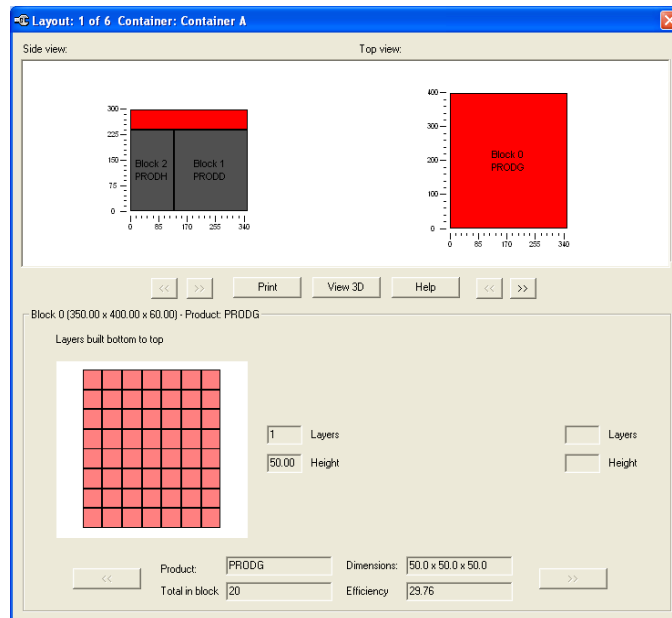
Viewing the sample packing patterns

Open the demo scenario by selecting the *Scenarios/View Scenario* menu option. Next open the layout viewer by selecting the *View patterns* menu option:

	x	Pattern No	Container	Repeat	Blocks	Products	No products	Efficiency
1	<input type="checkbox"/>	0	Container A	1	3	PRODG+PRODD+PRODH	39	60.8
2	<input type="checkbox"/>	1	Container A	1	2	PRODF+PRODG	11	60.0
3	<input type="checkbox"/>	2	Container A	2	1	PRODF	8	56.6
4	<input type="checkbox"/>	3	Container A	10	1	PRODE	2	60.3
5	<input type="checkbox"/>	4	Container A	1	2	PRODD+PRODH	16	49.6
6	<input type="checkbox"/>	5	Container A	1	2	PRODF+PRODG	3	16.8

The grid dialog shows a list of each different packing configuration used within the scenario. A packed container is made up of one or more *blocks* of a single product. Summary information on the number of different blocks, the products packed, and the packing efficiency is shown. Double click on a container in the grid to view its packing information in more detail.

The packing plans are also shown in graphical form:



The layout of blocks of product within the container is shown at the top of the dialog. Use the << and >> arrows to see blocks of product which are currently obscured.

MULTIPACK

Packing Management



The currently selected block is highlighted in red – change this selection by left clicking within the block layout diagrams. Detailed information on the layout of the product within the selected block is shown at the bottom of the dialog along with information on the block and product dimensions, quantity of product packed and the packing efficiency.

View a 3D representation of the packing plan by clicking on the **View 3D** button.

Print the currently selected layout by pressing the **Print** button.

Generating your own packing plans

A Multipack scenario refers to a set of products and a set of containers. The products must be packed into a selection of the containers.

Edit the product list by selecting the menu option *Input data/Edit product list* from the *Scenario* dialog. Each line of the Product List defines a single product type and specifies the quantity of this product that must be packed. Please note that each block (section) of the container is packed with units from a single product line

Multipack supports:

- **Packing of rectangular boxes, cylinders and cup shaped products by default**
- **Tailored versions for other basic shapes including interlocking shapes can be offered**
- **Restricting the stacking orientation of a product (e.g. stack on base only)**
- **Stacking of fragile/heavy products (e.g. must be on top/must be on bottom)**

Change the containers available by selecting the menu option *Input data/Edit container list* All packing containers are rectangular boxes. They may represent cartons or pallets or even trailers.

- **One or more products may be packed into a single container**
- **Weight limits are fully handled**
- **Complexity of the permitted packing (e.g. number of different product types per container) may be specified for each container type.**

Two types of packing may be performed; mixed container packing and single container packing.

Select the menu option *Pack/Mixed* containers to generate a single optimized plan that uses a mixture of the available container types to achieve the most efficient packing plan.

Select the menu option *Pack/Select container* to product a packing plan for the product list for each container type in turn. This resulting family of plans may then be reviewed and the most appropriate container type selected.

Further information

For further information on MULTIPACK please contact PSL either via email at: info@pslopt.co.uk or by phone on +44 (0) 161 905 1665.