

# Quick Pallet Maker v5.6

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# User manual

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# Welcome to Quick Pallet Maker

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Quick Pallet Maker helps the package designer create optimal box and pallet arrangements to fit more products into a pallet or container load, thus minimizing shipping costs.

Quick Pallet Maker facilitates handling and cargo security, by adhering to plant guidelines such as: practical box proportions, maximum box weight, vertical compression, slack, etc.

Quick Pallet Maker offers three easy ways to begin the optimization process according to the data and the desired outcome:

- From the primary package, for building and filling the boxes
- From the box dimensions
- From the fill container

Resulting pallets can be modified to add or remove boxes, combine different boxes, and move layers to give more stability to the pallet. It is possible to fill containers with pallets or boxes directly on the container floor.

## What does Quick Pallet Maker do?

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The goal of Quick Pallet Maker is to help you place your products in a quick and easy way into pallets or containers and design the boxes properly.

If you start from the primary package dimensions:

1. Quick Pallet Maker takes the input data,
2. It builds boxes for primary packaging or uses the loaded boxes,
3. Fills the boxes with the number of packages you need, and
4. Calculates pallets with those filled boxes, stacking as many boxes as possible

Quick Pallet Maker gives you the ability to modify the resulting arrangements, move the boxes to include more or add slack to increase stability. Once you choose a solution, it can be used to fill a container or exported to a variety of formats, including a palletizing movie.

If you want to fill a shipping container using boxes and/or pallets, Quick Pallet Maker provides the means to do so directly.

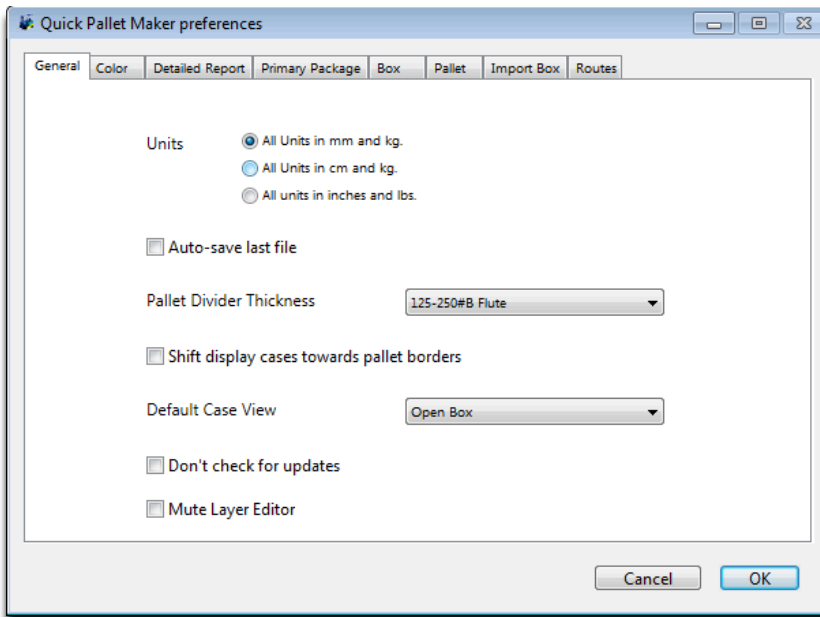
You can also choose to start from known box dimensions and calculate a new pallet arrangement. This saves time and allows the inclusion of different box sizes within the same shipping pallet.



# Preferences

If this is your first time using Quick Pallet Maker, we recommend reviewing the preferences. Go to **Tools** and click **Settings** (on Windows) or select **Preferences** from the **Quick Pallet Maker** menu (on OSX).

**Quick Pallet Maker Preferences** window has eight tabs: General, Color, Detailed Report, Primary Package, Box, Pallet, Import Box and Routes.



## General

### Units

It allows user to select the default units between mm/kg, cm/kg y inches/lbs.

### Auto-save last file

If selected it will save the last input file and open an identical file each time you call for a new document. This option is useful when working with similar data and customized case widths.

### Pallet Divider Thickness

It refers to the thickness of the pallet supports and is applied to: top cap, corner posts and layer dividers.

### **Shift display cases towards pallet borders**

The boxes will be shifted to the pallet borders in display pallets. In this case, there will be some slack between boxes to make sure that the load dimensions are equal to the shipping pallet dimensions, adding stability to the load.

### **Default Case View**

Selecting which case view would you like to see first when recalculating data. It is always possible to switch between views without accessing preferences.

Views:

- Internal box view
- External box view
- Open box

### **Don't check for updates**

When checked, Quick Pallet Maker will not attempt an Internet connection to see if there is a newer version available.

### **Mute Layer Editor**

When checked, the Layer Editor will be silenced and will not make a sound to alert that the box is not moving.

## **Color**

Change the default color of these drawing:

- Primary Package Color: one color per side
- Corrugated Container Color
- Internal Box Divider Color
- Layer pads, top caps and corners color
- Pallet Color

Click on the colored square and a dialog box will open to select a new color.

## Detailed Report

Quick Pallet Maker allows choosing the language of the detailed report between the default language (English, in this case) and a local language. You can also use a special terminology.

To edit or add a translation:

1. Select the appropriate row and the translation (if there is any) will appear in the text box at the bottom
2. Type the text in the box and change to another row to update the text

## Primary Package

Quick Pallet Maker saves calculation time by leaving out unlikely box sizes, based on the relations between their dimensions and weight.

- Maximum Primary Package Length
- Maximum Primary Package Width
- Maximum Primary Package Height
- Maximum Primary Package Weight

## Box

Here you can change the defaults for the box constraints.

- Maximum Case Weight
- Length/Width Ratio (Minimum and Maximum), prevents from designing very narrow or wider than long boxes
- Length/Height Ratio (Minimum and Maximum), prevents from designing a too tall or too short box
- Height/Width Ratio (Minimum and Maximum), similar than above
- Maximum slack in case (Length x Width x Height)
- Max. Int. Compression (Length x Width x Height)

## Pallet

Here you can change the defaults for the pallet constraints.

- Maximum Pallet Length
- Maximum Pallet Width
- Maximum Pallet Height
- Maximum Pallet Weight

## Import Box

Here you can manage the fields to keep when importing boxes.

- Units
- Type
- Length
- Width
- Height
- Weight
- Color
- Amount
- Code
- Description
- Class 1
- Class 2

## Routes

These are the fields when importing routes

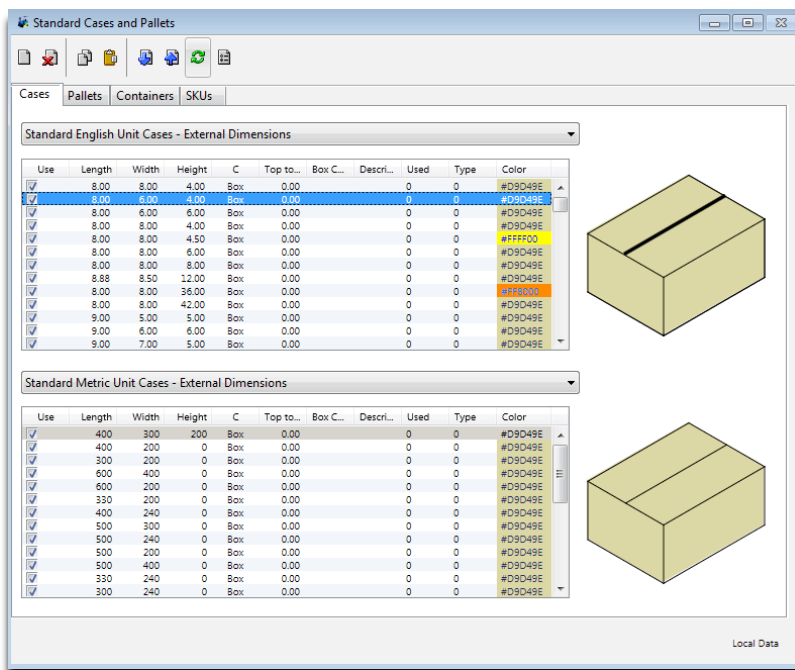
- **warehouse** this field refers to the warehouse.
- **driver\_id** this field refers to the driver identification.
- **driver\_name** this field refers to the driver name.
- **truck\_name** this field refers to the truck name.
- **comment** this field refers to a comment.
- **po** this field refers to the Purchase Order.
- **client\_id** this field refers to the client identification.
- **client\_name** this field refers to the client name.
- **prod\_seq** this field refers to the product sequence.
- **trip** this field refers to the trip.

# Standard Cases and Pallets

It is very easy to manage boxes, pallets and containers from the **Standard Cases and Pallets** window.

You can access this window from any input method: go to the **File** menu, select **New Data Sheet** and click the input method you prefer. The **Standard Cases and Pallets** window will appear in the background.

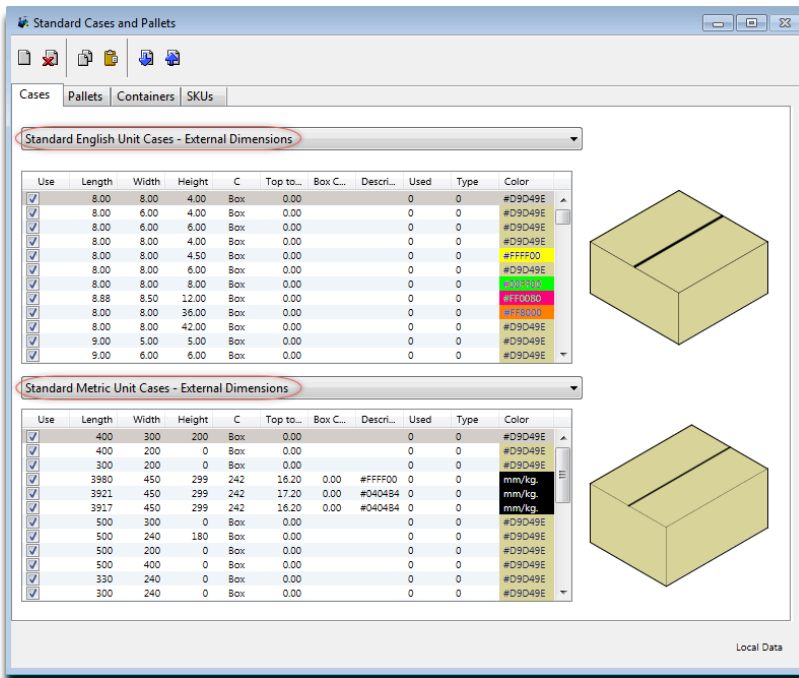
Or in **Window** menu choose **Standard Cases and Pallets** and then click on **Cases** tab.



## Standard Cases

Quick Pallet Maker provides the user with two lists of standard cases to be filled with primary packages:

- **Standard English Unit Cases** (inches)
- **Standard Metric Unit Cases** (millimeters)



The purpose of this classification is to use a reduced number of sizes of boxes to pack your goods.

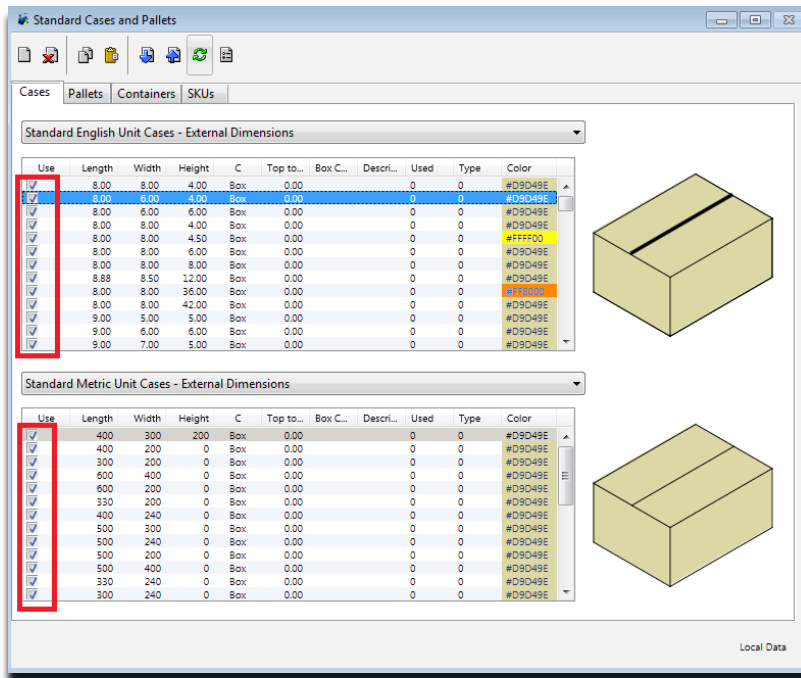
The menu on top of each table allows you to select whether the standard case dimensions in the table will be used as internal or external.

Quick Pallet Maker uses the unit you selected on the preferences; if you selected units in inches and pounds, the boxes will be taken from the table of **Standard English Units Cases**.

## Enable, add and edit boxes

### Enable or disable boxes

All boxes can be enabled or disabled by clicking the checkbox in the first column of the table.



The disabled boxes are ignored in all calculations.

## Add or delete boxes

Select the box you want to delete and press the DEL key or the BKSP key on the keyboard.

To add a box, please follow this procedure:

1. Click on a box
2. Then, on the **Edit** menu, click **Duplicate** or press CTRL + D (Command + D on OSX), another box will appear and you can edit the dimensions

## Edit boxes

You can group boxes using the **Category (C)** column of the table and perform calculations on specific types of cases.



Use	Length	Width	Height	C	Top to...	Box C...
<input checked="" type="checkbox"/>	8.00	8.00	4.00	Tray	0.00	
<input checked="" type="checkbox"/>	8.00	6.00	4.00	Tray	0.00	
<input checked="" type="checkbox"/>	8.00	6.00	6.00	Box	0.00	
<input checked="" type="checkbox"/>	8.00	8.00	4.00	Box	0.00	
<input checked="" type="checkbox"/>	8.00	8.00	4.50	Box	0.00	
<input checked="" type="checkbox"/>	8.00	8.00	6.00	Box	0.00	
<input checked="" type="checkbox"/>	8.00	8.00	8.00	Box	0.00	
<input checked="" type="checkbox"/>	8.88	8.50	12.00	Box	0.00	
<input checked="" type="checkbox"/>	8.00	8.00	36.00	Box	0.00	
<input checked="" type="checkbox"/>	8.00	8.00	42.00	Box	0.00	
<input checked="" type="checkbox"/>	9.00	5.00	5.00	Box	0.00	
<input checked="" type="checkbox"/>	9.00	6.00	6.00	Box	0.00	

To edit boxes follow this procedure:

1. Select a box and double-click on it
2. Edit the dimensions and then click another row or press the ENTER key on the keyboard to finish

## Use standard boxes in centimeters

To use standard boxes in centimeters, multiply the dimensions by 10, and then write them on the **Standard Metric Unit Cases** table.

## Allow Quick Pallet Maker to assign the height of the standard boxes

If you wish to fix only standard lengths and widths, leaving the height value to be calculated by QPM, please assign a case height value of zero to the listed box.

If the standard case height is greater than zero, then Quick Pallet Maker will assume that you want to define an exact box (length, width and height).

## Add vertical compression

Height	C	Top to...	Box C...	Descri...
4.00	Tray	100.00		
4.00	Tray	120.00		
6.00	Box	0.00		
4.00	Box	50.00		
4.50	Box	50.00		
6.00	Box	0.00		
8.00	Box	0.00		
12.00	Box	0.00		
36.00	Box	0.00		
42.00	Box	0.00		

To add vertical compression, please follow this procedure:

1. Select the box and double-click on it

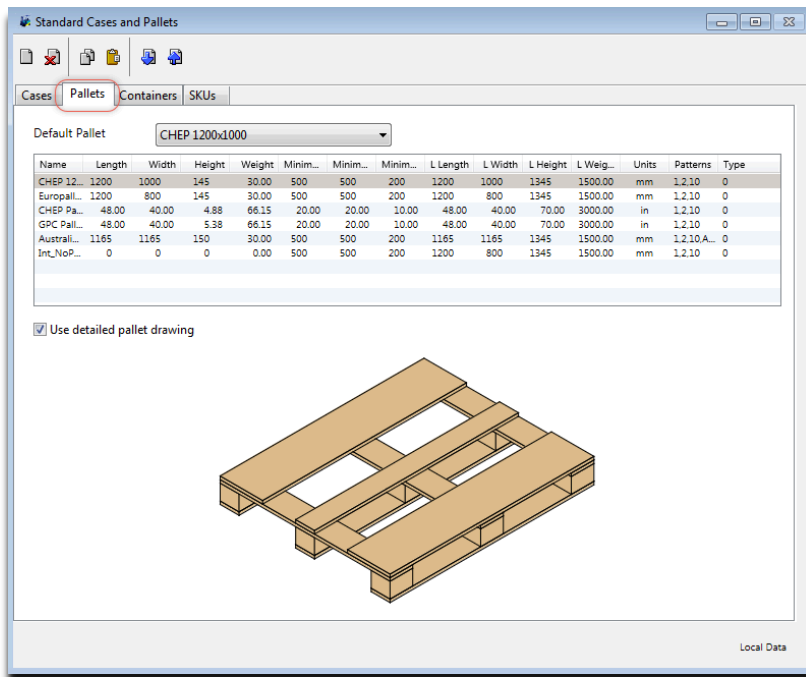
- Set the desired value and then click another row or press the ENTER key on the keyboard to finish

Quick Pallet Maker will calculate pallet loads that do not stress the lower boxes more than the allowed value.

If the compression value is zero, Quick Pallet Maker will not use this variable when placing the boxes.

## Standard Pallets

Quick Pallet Maker provides a list of four commonly-used pallet sizes that can be modified or expanded to include different pallets.



## Edit, add or delete standard pallets

### Edit pallets

- Select the pallet and double-click on it
- Edit the dimensions and then click another row or press the ENTER key on the keyboard to finish

## Add or delete pallets

Select the pallet you want to delete and press the DEL key or the BKSP key on the keyboard.

To add a pallet, please follow this procedure:

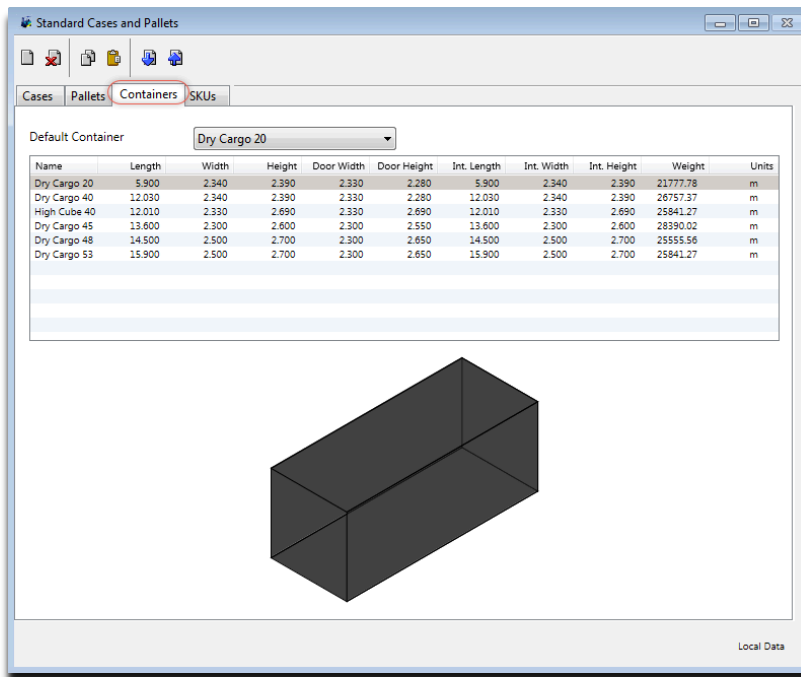
1. Click on a pallet
2. Then, on the **Edit** menu, click **Duplicate** or press CTRL + D, another pallet will appear and you can edit the dimensions

## Set a default pallet

If you want to set a pallet as default, choose one from the drop-down menu and Quick Pallet Maker will use that pallet every time a new document window (primary package or box) is opened. Please note that you can always change the pallet.

## Containers

Quick Pallet Maker offers the possibility of working with standard shipping containers and storing their properties in the third tab of the **Standard Cases and Pallets** window. We provide a list of containers that can be modified or expanded to include more.



## Edit, add or delete containers

### Edit containers

1. Select the container and double-click on it
2. Edit the dimensions and then click another row or press the ENTER key on the keyboard to finish

### Add or delete containers

Select the container you want to delete and press the DEL key or the BKSP key on the keyboard.

To add a container follows this procedure:

1. Click on a container
2. Then, on the **Edit** menu, click **Duplicate** or press CTRL + D, another container will appear and you can edit the dimensions

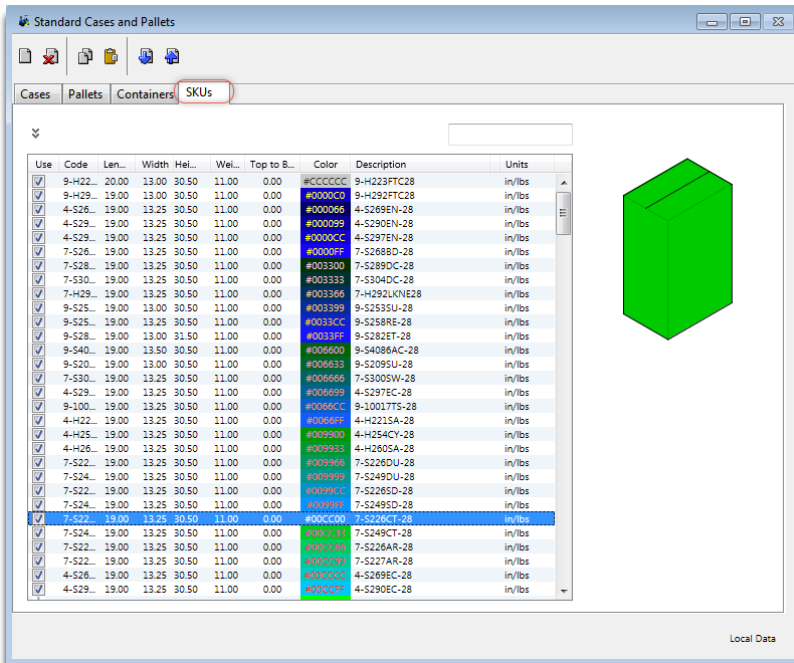
### Set a default container

If you want to set a container as default, choose one from the drop-down menu and Quick Pallet Maker will display its dimensions first when opening a new **Fill Container** window. Please note that you can always change the container.

## SKUs

You can access this option from any input method: go to the **File** menu, select **New Data Sheet** and click the input method you prefer, the **Standard Cases and Pallets** window will appear in the background, then click on **SKUs** tab.

Or go to **Window** menu, select **Standard Cases and Pallets**, then click on tab **SKUs** (Stock Keeping Units or delivering units for every product).



## SKUs Basic Actions

The Quick Pallet Maker Provides an easy way to keep updated your Stock Keeping Units table.

### Edit SKUs

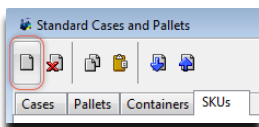
To edit the data follow this procedure:

1. Select a box and double-click on it
2. Edit the dimensions and then click another row or press the ENTER key on the keyboard to finish

### Add SKUs

To add an item, please follow this procedure:

1. On the toolbar, click on icon **New**.
2. A new line is added at the bottom of the list with zeroed values so you can edit the dimensions.



## Paste SKUs

To add an item, please follow this procedure:

1. From a Worksheet with the SKUs info copy the selected data.
2. On the SKUs window right click and then paste.

## Delete SKUs

1. Select the item you want to delete and go to the **Edit** menu
2. Then:
  - Click **Delete**
  - or press the DEL key or the BKSP key on the keyboard
  - or, on the toolbar, click on the **Delete** icon

## Enable or disable SKUs

All SKUs can be enabled or disabled by clicking the checkbox in the first column of the table. The disabled SKUs are ignored in all calculations.

# Optimize from primary package

To begin from the primary package, go to the **File** menu, select **New Data Sheet**, and then click **Start from PP**.

You will find preloaded data on this window; those default values are based on real-life data and can be used to view the program's features. To calculate, go to **Tools** menu and click **Recalculate**.

**Input Data - Untitled 1**

**Primary Package Information**

Package Shape: Rectangular

Dimensions Allowed Vertical to Pallet:  Length,  Width,  Height

Description: [ ] Length: 128 X Width: 113 X Height: 175 mm Weight: 1 kg.

**Case Information**

Construction: RSC - Regular Slotted Container, 125-250#B Flute

Board Thickness (LengthxWidthxHeight): 6.35 X 6.35 X 12.7 mm

Case Count: 6

Case Constraints:

	Minimum	Maximum	Minimum	Maximum
External Case Length	50	600	Length/Width Ratio	1 3
External Case Width	50	600	Length/Height Ratio	0.5 3
External Case Height	50	600	Height/Width Ratio	0.5 3

**Standard Cases**

Type: Box

Maximum slack in case (Length x Width x Height): 25 X 25 X 25 mm

Do not use Standard cases

Max. Int. Compression (Length x Width x Height): 0 X 0 X 0 mm

**Pallet Dimensions**

CHEP 1200x1000

Length: 1200 X Width: 1000 X Height: 145 mm Weight: 30 kg.

**Load Properties**

Min Load Dimensions: Length 500 X Width 500 X Height 200 mm

Max Load Dimensions: Length 1200 X Width 1000 X Height 1345 mm

Max Load Weight: 1500 kg.

Ver. 5.6.0  
All Units in mm and kg.

## Primary Package Information

The available options and their purposes are:

### Package Shape

Select from **Rectangular**, **Cylinder** or **Bottle** depending on whether your primary package looks more like a carton, a can or a bottle. Irregular-shaped objects will most of the time resemble a rectangle. Narrow-neck bottles (wine, ketchup, etc.) that are selected as bottles can only be stacked upwards.

### Dimensions Allowed Vertical to Pallet

Check the orientations that are suitable for your product. Some products may have unallowed orientations. The least options that are checked, the faster Quick Pallet Maker will calculate the available solutions.

### External Dimensions

Type the **Length**, **Width** and **Height** or **Diameter** and **Height**, depending on whether your package is rectangular or cylindrical.

### Bottle Cap and Body

A pair of radio buttons appears if you have selected the **Bottle** package shape. Clicking on these radio buttons will determine which one of the bottle properties can be modified by dragging within the drawing. Dragging the drawing vertically will change the bottle proportions. Dragging sideways when the cap button is activated will allow changing its diameter.

### Weight

Type the gross weight of your package. This is useful for calculating the corrugate carton resistance and pallet weight limitations.

## Case Information

The available options and their purposes are:

### Case Count

Type the number of primary packages per case. If you are not sure of this number, you can test different scenarios with the **Advanced Input Options** window.

### Construction

You can choose between two different types of boxes: **RSC**, **Tray**, **Stretch-Wrap**, **Rectangular**, and **Packout**, and several standard corrugate thicknesses.

### Board Thickness

Each type of box has a default thickness. The purpose of this is to calculate the added thickness that is provided by the boxes and to display the box drawings accordingly. The options are not a limit, you can overrule the box thicknesses that appear in the values at right of the menus and type your own.

### Case Constraints

The case constraints allow the user to limit the different types of boxes that the program will create based on the dimensions.

### Case Properties



Here you will find the internal dividers and/or add slack to the cases. Quick Pallet Maker includes a list of standard dividers that will add the specified space into the boxes for proper calculation. The box drawings with dividers will show internal slack but will not display the dividers.

To add a partition, follow this procedure:

1. Select a partition from the **Internal Divider Type** list
2. Then, select a standard board width from the **Flute Type** or enter a custom value
3. Click OK to include the partition into the calculations

## Standard Cases

The available options and their purposes are:

### Type

When adding or editing standard cases in the **Standard Cases and Pallets** window, you can define the type of box to discriminate quickly using this menu. The default value for the boxes in the list is **Box**.

### Standard Cases

This pull-down menu enables you to choose how you would like to fill the cases:

- **Do Not Use Standard Cases:** Will calculate normally and will create boxes according to the primary package arrangement
- **Using Standard Sizes Whenever Possible:** This option will only replace the calculated boxes with standard case sizes when their range is within the range of the standard box. Those cases that cannot be standardized will be left as they were calculated
- **Use ONLY Standard Cases:** Only cases within the specified range will be considered and those cases that cannot be standardized will be ignored. If no standard cases are possible, then Quick Pallet Maker will deliver a *"No solutions found"* message
- **Fill Standard Cases:** When this option is selected, Quick Pallet Maker will arrange the primary packages (this feature is not available for cylindrical packages) in such a way that it maximizes the number of packages per box. In this case, the maximum slack restrictions will apply
- **Fill Standard Cases With Constant Case Count:** Will add as many boxes as determined in the **Case Count** cell

### Maximum Internal Compression in Case

It represents the distance that a product inside the box can be compressed. Compression should be used only when the product will not be damaged. For example, pillows and soft foam products. In all other cases, compression should be zero.

### **Maximum Slack in Case**

Slack should only be used when the product will not be damaged due to movements within the box or when internal padding can be added.

## **Pallet Dimensions**

The available options and their purposes are:

### **Pallet Type**

Select the pallet to use. All pallets from **Standard Cases and Pallets** window are listed.

### **Pallet Dimensions**

Shows the dimensions of the selected pallet, you can edit if necessary.

### **Weight**

Enter the empty pallet weight.

## **Load Properties (including shipping pallet)**

The available options and their purposes are:

### **Minimum Load Dimensions**

Minimum values for pallet load.

### **Maximum Load Dimensions**

Maximum values for pallet load. Overhang (load bigger than pallet) is usually unacceptable since it may damage the cases during transportation.

### **Maximum Weight**

Enter the maximum weight on a pallet load.

**NOTE** Remember that the pallet height and weight are included into these values

## Optimize from Box

From the box dimensions, you can calculate pallet loads and then you have the ability to use those pallets to fill a shipping container. The options available in this window are similar to those in **Start from PP**.

To begin from the box, go to the **File** menu, select **New Data Sheet**, and then click **Start from Box**.

The screenshot shows the 'Input Data - Untitled 2' window with the following sections:

- Case Information:** Construction: RSC - Regular Slotted Container; Board Thickness (LengthxWidthxHeight): 6.35 X 6.35 X 12.7 mm.
- Case Dimensions:** Length: 0 mm, Width: 0 mm, Height: 0 mm, Weight: 0 kg, Amount: 0. Dimensions Allowed Vertical to Pallet: Length, Width, Height (checked). Color: Olive green. Add Box button.
- Calculation Variables:** Single product pallets. Mix surplus. Optimize Sections (checked).
- Pallet Dimensions:** CHEP 1200x1000. Length: 1200 mm, Width: 1000 mm, Height: 145 mm, Weight: 30 kg.
- Load Properties:** Min Load Dimensions: 500 X 500 X 200 mm. Max Load Dimensions: 1200 X 1000 X 1345 mm. Max Load Weight: 1500 kg.

All Units in mm and kg.

## Case Information

The available options and their purposes are:

### Construction

You can choose between five different types of boxes: **RSC**, **Tray**, **Stretch-Wrap**, **Rectangular**, and **Packout**, and several standard corrugate thicknesses.

## Board Thickness

Each type of box has a default thickness. The purpose of this is to calculate the added thickness that is provided by the boxes and to display the box drawings accordingly. The options are not a limit, you can overrule the box thicknesses that appear in the values at right of the menus and type your own.

## Case Dimensions

The available options and their purposes are:

### Length, Width, Height, Weight

In this section you can write the external dimensions and weight of the boxes, and Quick Pallet Maker will use the **Board Thickness** values to automatically calculate the other dimension.

### Amount

Number of cases.

### Color

Box color.

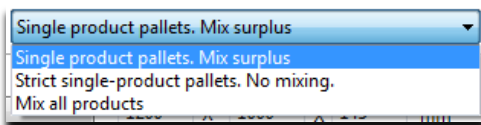
### Dimensions Allowed Vertical to Pallet

Check the orientations that are suitable for your product. Some products may have some orientations not allowed. The least options that are checked, the faster Quick Pallet Maker will calculate the available solutions.

## Calculation Variables

The available options and their purposes are:

**Single products pallets. Mix surplus, Strict single-product pallets. No mixing, Mix all products.**



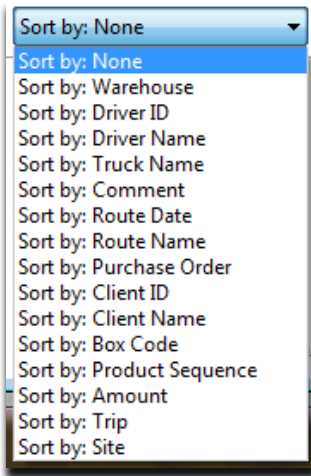
When you are palletizing different products you can select whether or not mix products in a pallet and the surplus boxes.

### Optimize Sections.

Check get the maximum optimization value. To accomplish this QPM omits the input order.

### Sort by.

When you import SKUs data (on menu: File, Insert, Shipment) you get this menu that allows you order the info according to your convenience.



## Pallet Dimensions

The available options and their purposes are:

### Pallet Type

Select the pallet to use. All pallets from the **Standard Cases and Pallets** window are listed.

### Pallet Dimensions

Shows the dimensions of the selected pallet, that you can edit if necessary.

### Weight

Enter the empty pallet weight.

## Load Properties (including shipping pallet)

The available options and their purposes are:

### Minimum Load Dimensions

Minimum values for pallet load.

### Maximum Dimensions

Maximum values for pallet load. Overhang (load bigger than pallet) is usually unacceptable since it may damage the cases during transportation.

### Maximum Weight

Enter the maximum weight on a pallet load.

**NOTE** Remember that the pallet height and weight are included into these values.

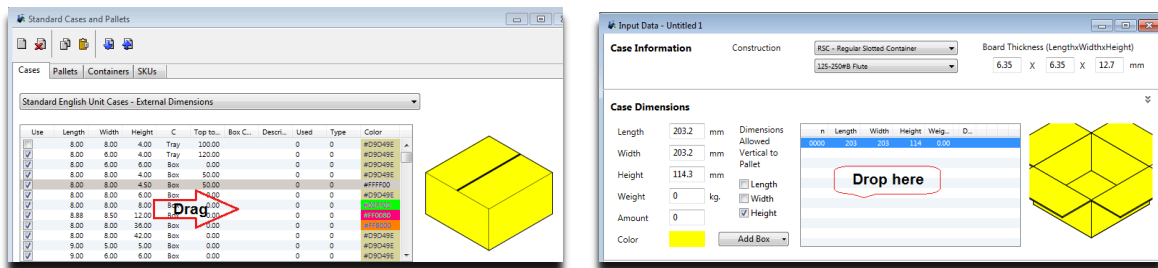
## Create, delete and import boxes

### Manually create boxes

Type the box dimensions in the left cells and then click the **Add Box** button or select the option **Add Box**.

### Drag and Drop from the boxes table

From the **Standard Cases and Pallets** window drag one box and drop it on the list, click on it to see the drawing.



### Copy and paste boxes from a spreadsheet

1. To perform this action the data must be in the following order:

a) **Unit:** Write 0 for mm/kg, 1 for cm/kg or 2 for inches/pounds

- b) **Type**: Fill this column with the value 1 assigned to boxes
  - c) **Length**
  - d) **Width**
  - e) **Height**
  - f) **Weight**
  - g) **Color**: Hexadecimal code
  - h) **Amount**
  - i) **Code**: Box code
  - j) **Description**: Box description
2. Select the data in the spreadsheet
  3. On Quick Pallet Maker, go to the **Edit** menu, select **Paste**, or press CTRL + V (Command + V in OSX)

## Delete boxes

Select the box you want to delete and go to the **Edit** menu and click **Delete**, or press the DEL key or the BKSP key on the keyboard.

## Import box

This feature allows you to import boxes that were created and saved with Quick Pallet Maker.

To import, follow one of these procedures:

### Procedure 1:

1. Click the **Import Box** button below the table in **Start from Box**, then a window will appear for you to select the box, click **Open** to finish

### Procedure 2:

1. Go to the **File** menu, click on **Insert** and then click **Box**
2. A window will appear for you to select the box
3. Click **Open** to finish

### Procedure 3:

This step is useful to palletize SKUs with the info from the delivery order.

1. Go to the **File** menu, click on **Insert** and then click **Shipment**
2. A window will appear for you to select the shipment
3. Click **Open** to finish

## Calculate pallets

If you have already loaded all the necessary data to calculate, please go to **Tools** menu and click on **Recalculate**, or press CTRL+ R (Command + R in OSX). If the data does not lead to any solution, you will see a message.



# Optimize from Fill Container

The container fill window allows you to:

- Calculate container fill with one element type (pallet, box or drum)
- Fill as many containers as needed depending on a given order or shipment
- View the list of containers, pallets and boxes in a given shipment

To begin from fill container, go to the **File** menu, select **New Data Sheet**, and then click **Fill Container**, or, if you are calculating pallets in **Available Solutions** window, select a solution, go to **Tools** menu and then **Fill Container**.

Fill Container - Untitled 1

Input Data    Container    Shipment    Shipment Data

**Items**

Pallet Dimensions

Length: 0 mm  
Width: 0 mm  
Height: 0 mm  
Weight: 0 kg.  
Amount: 0  
Color:

Am...	Type	Len...	Wid...	Hei...	Wei...	Code	Des...
0000	Pallet	1200	1000	1288	30		

Add Pallet    Import Pallet...

Use detailed pallet drawing

**Dimensions Allowed Vertical To Container**     Length     Width     Height

**Container Type**    Dry Cargo 20    Shipping Rate per Container    0 US\$

**Load Properties**

	Length	Width	Height	
Min Load Dimensions	2950 X	1170 X	1195	mm
Max Load Dimensions	5900 X	2340 X	2390	mm
Internal Dimensions	5900 X	2340 X	2390	mm

Max Load Weight    21778 kg.

Pallet Stack     Optimize Sections

All Units in mm and kg.

## Input Data tab

### Items

#### Package

Choose whether you will add or import a pallet or a box. A drum is considered a stretch-wrap box with a cylinder inside so it can only be used by importing it.

### **Length, Width, Height, Diameter, Weight**

Type the dimensions for your boxes, pallets or cylinders.

### **Amount**

Enter the number of boxes, pallets or cylinders.

### **Color**

Click to pick the color that will represent the item.

## **Dimensions Allowed Vertical to Container**

Check the orientations that are suitable for your product. Some products may have not allowed some orientations. The least options that are checked, the faster Quick Pallet Maker will calculate the available solutions.

## **Container Type**

Select the container to use. All containers from **Standard Cases and Pallets** window are listed.

### **Shipping Rate per Container**

This cell contains the price of shipping the container or truck to any given location. It will be used for calculating the cost per item, box or pallet.

## **Load Properties**

Input the maximum and minimum values to calculate the container.

### **Minimum and Maximum Load Dimensions**

Range of load.

### **Internal Dimensions**

Defines the usable space of the container.

### **Max Load Weight**

Type the maximum weight to load into the container

### **Pallets Stack**

Allow stack pallets into the container.

### **Optimize Sections**

Sorts the boxes inside the container to fit a higher number

## **Container tab**

In this window, you will see the result of the container calculation; the drawing of the loaded container and the informative data.

### **3D Drawing**

Clicking on this checkbox will shift the view from 3 dimensions to 2 dimensions and back. The same result can be achieved by clicking on the **Toggle Pallet View** option in the **View** menu or press, on the keyboard, **CTRL + T** in Windows, or **CMD + T** in OSX.

### **Show Empty Pallets/Show Full Pallets**

Depending on the selection, the pallets will be shown with the load or without it. The same result can be achieved by clicking on the **Toggle Pallet View** option on the **View** menu or press, on the keyboard, **CTRL + T** in Windows, or **CMD + T** in OSX.

### **Forward and Backward Arrows**

A triangle will appear on the upper right corner if there are more containers in the calculated shipment. Use them to move between containers.

## **Shipment tab**

### **Bill of Materials**

This table contains all the containers, pallets and boxes that are present in the shipment. Click on each element to see its drawing and position below the table.

### **Container Drawing**

Show the container(s) for the given shipment.

## Shipment Data tab

Here you will find in a menu, the list of reports about the container shipment. These are either a summary or detailed type.

## Create, delete or import boxes, pallets or cylinders

### Manually creating

Type the item dimensions on the left cells, and then click on the **Add Pallet** or **Add Box** buttons, right under the table.

### Copy and paste from a spreadsheet

1. To perform this action the data must be in the following order:
  - a) **Unit:** Write 0 for mm/kg, 1 for cm/kg or 2 for inches/pounds
  - b) **Type:** Fill this column with the value 1 for box and 0 for pallets
  - c) **Length**
  - d) **Width**
  - e) **Height**
  - f) **Weight**
  - g) **Color:** Hexadecimal code, beginning with '#', by example: #09D49E
  - h) **Amount**
  - i) **Code:** Box code
  - j) **Description:** Box description
2. Select the data in the spreadsheet and copy.
3. On Quick Pallet Maker, go to **File** menu, select **New Data Sheet**, and then click on **Fill Container**.
4. Go to the **Edit** menu, select **Paste**, or press CTRL + V (Command + V on OSX).

### Delete boxes, pallets or cylinders

1. Select the item you want to delete
2. Go to the **File** menu and click **Delete**, or press the DEL key or the BKSP key on the keyboard

### Import boxes and pallets

This feature allows you to import boxes and pallets that were created and saved with Quick Pallet Maker.

To import, follow one of these procedures:

**Procedure 1:**

1. Click the **Import Box** or **Import Pallet** button below the table on **Fill Container**, then a dialog box will appear for you to select the item, click **Open** to finish

**Procedure 2:**

1. Go to the **Edit** menu, click on **Insert** and then click **Box** or **Pallet**
2. A window will appear for you to select the item
3. Click **Open** to finish

## Calculate container

If you have already loaded all the necessary data to calculate, please go to **Tools** menu and select **Recalculate**, or press CTRL+ R (Command + R in OSX). Another option is go to the **Container** tap.

## Available Solutions window

In this window you can see the list of pallet arrangements that Quick Pallet Maker has found as solutions. You can make changes to the initial solutions until you are satisfied with the outcome.

The screenshot shows the 'Available Solutions' window with the following details:

- Primary Package Information:** 128011317513C, Length: 128, Width: 113, Height: 175, Weight: 1.00.
- Pallet Number:** 0002
- Case Information:** box\_128011317513..., Count: 6, Int./External Case Length: 384/390, Int./External Case Width: 226/232, Int./External Case Height: 175/188, Filled Case Weight: 6.00.
- Cases in Pallet Information:** Cases per Pallet Length: 3, Cases per Pallet Width: 4, Number of Layers: 6, Cases per Layer: 12, Total Cases per Pallet: 72, Pallet Area Efficiency: 90.70%.
- Load Dimensions:**

	Not Including Pallet	Including Pallet
Load Length	1171	1200
Load Width	929	1000
Load Height	1126	1271
Load Weight	432	462
Load Volume	1.23 m <sup>3</sup>	1.53 m <sup>3</sup>
- Feasible Pallets:** 24
- Number of Feasible Cases:** 8
- Number of Standard Cases:** 0
- Table of Feasible Cases:**

n	Len...	Wid...	Hei...	Grp	L	W	H
0001	390	232	188	3	3	2	1
0002	345	262	188	4	3	2	1
0003	390	181	239	6	3	1	2
0004	345	134	363	4	3	1	2
0005	345	181	269	1	3	1	2
0006	356	134	352	5	2	1	3
0007	262	181	352	6	2	1	3
0008	232	181	397	1	2	1	3
- Enlarge boxes:** 390 X 232 X 188
- Table of Solutions:**

Sol	Box L	Box W	Box H	Box ...	Area	CxLen	CxWid	CxH...	CxLay	Total	PP	L Len...	L Wi...	L Hei...	L We...	Area ...	Vol Ef	Code
0001	390.35	232.35	187.70	6.00	0.53	3	4	6	12	72	432	1171.05	929.40	1126.20	432.00	90.70%	85.12%	1
0002	390.35	232.35	187.70	6.00	0.53	5	2	6	10	60	360	1161.75	780.70	1126.20	360.00	75.58%	70.93%	2
0003	390.35	232.35	187.70	6.00	0.53	6	12	6	12	72	432	1171.05	929.40	1126.20	432.00	90.70%	85.12%	10
0004	345.35	262.35	187.70	6.00	0.55	3	3	6	9	54	324	1036.05	787.05	1126.20	324.00	67.95%	63.77%	1
0005	345.35	262.35	187.70	6.00	0.55	4	2	6	8	48	288	1049.40	690.70	1126.20	288.00	60.40%	56.69%	2
0006	345.35	262.35	187.70	6.00	0.55	6	11	6	11	66	396	1049.40	953.05	1126.20	396.00	83.05%	77.94%	10

## Elements of the Available Solutions Window

### Detailed Load Information

Each time a pallet is selected, the detailed information for that pallet is shown in the left area of the window. This information is read-only.

### Pallet Drawing

Displays the currently selected pallet and clicking on the pallet drawing will switch views.

### Box List

Displays the feasible cases, the standard cases will appear with a light blue background. There are three pallet solutions per box.

## Feasible Pallets

Displays the amount of feasible cases; if you delete or add a pallet, the number updated.

## Pallets List

The section at the bottom contains all the available pallets. As mentioned before, there are three pallet solutions per box.

## Pallet Actions

This menu contains the pallet rearrangement actions that can be performed with the selected pallet. These actions can also be found under the **Tools** menu, option **Pallet Actions**. To perform an action on a pallet, select an item from this menu and press the **Go** button.

Available actions:

- **Optimize:** Tries to create a new pallet with an optimized arrangement, based on the boxes and pallet restrictions of a selected pallet.
- **Optimize and Flip Cases:** Creates two new pallets with optimized arrangements of flipped cases (i.e. on their sides), based on the boxes and pallet restrictions of the selected pallet.
- **Mix Layers and Optimize In Height:** You must select two pallets, and Quick Pallet Maker will create a new pallet that mixes the first layer of each one of the selected pallets. The layers are mixed to fit as many boxes as possible within the available height.
- **Alternate Layers:** Creates a new pallet with boxes arranged in opposite directions on each level in order to add stability to the load.
- **Mix Pallet:** You must select two pallets, and Quick Pallet Maker will create a new pallet with one of each of the first layers of the selected pallets.
- **Mix Pallet – Area Efficiency:** You must select two pallets, and Quick Pallet Maker will create a new pallet with one of each of the first layers of the selected pallets. The layers are mixed to fit as many boxes as possible within the available height.
- **Display Box Length:** Creates a new pallet in which the boxes are placed in such a way that as many boxes as possible show the longest face outwards.
- **Display Box Width:** Creates a new pallet in which the boxes are placed in such a way that as many boxes as possible show the shortest face outwards.
- **Generate Stable Pallets:** Alternates the boxes on the pallet so that lengthwise and transversal columns follow each other. The resulting pallet type is more stable (although it doesn't necessarily fit more boxes).

## Delete rows and sort table

### Delete rows

You can delete items from the pallets and boxes lists. For that, please follow this procedure:

1. Select the item you want to delete
2. Go to the **Edit** menu and click **Delete**, or press the DEL key or the BKSP key on the keyboard.

### Sort pallets list

The pallets list can be sorted by any column. To do this, please follow this procedure:

1. Go to the **Tools** menu, and select the **Power Sort** option
2. In the dialog box, select the sort parameters

## Change pallet and box view

### Change pallet view

1. Click on the pallet drawing
2. To see the rest of the views offered by Quick Pallet Maker, right click (press CMD + click on OSX) on the image or go to the **View** menu
3. Select one option from the list.

### Available pallet views

- **One Layer:** Shows only the first pallet layer
- **All Layers:** Shows all the pallet layers
- **Empty Tray:** If working with trays, will display them without the primary packages. This feature is useful to detect the tray layout in the pallet, which may not be so obvious when viewing the loaded trays



- **Show Corner Posts:** Will display the pallet with corner posts, which are the corrugated board supports that are frequently placed on the corners of the pallet load to facilitate stretch wrapping
- **Show Top Cap:** Show the cardboard sheet placed at the top of the pallet
- **Show Layer Pads:** Show the cardboard pads between the layers to provide stability to the pallet

## Change box view

1. Right click on the box drawing or press CMD + click on OSX
2. Then select one option from the list

### Available box views

- **Internal Box View:** Display the box contents (primary packages)
- **External Box View:** Display a closed box or a full tray, whichever the case type
- **Open Box:** If you are working with an **RSC** box, this action will open the flaps
- **View Box Contents:** If you are working with an **RSC** box, this action will open the flaps and show the content by removing the front boards. This feature is useful for viewing the effect of slack on the box.
- **Drawing (2D):** Shows 2D box.

## Export box or pallet

This feature allows you to save the box and pallet data to a file for future use. Using this feature will allow you to keep boxes for combining with others to create a pallet that contains different products.

Follow one of these procedures:

### Procedure 1

1. Select the box or pallet you want to save
2. Go to the **File** menu, click on **Export** and then select **Box** or **Pallet** option
3. Choose **File (XML)** option

### Procedure 2

1. Right click (CTRL+ click on OSX) over the drawing
2. Select the **Export** option

## Recalculate box

This feature is useful when the original pallets were deleted or when a box was imported into the list.

1. Select one box from the **Box List**
2. Press **Recalculate** on the **Tools** menu, and you will have three pallets from that box

## Assign code and description for boxes and pallets

You can set code and description to the boxes and pallets, following this procedure:

1. Right click or CMD + click on OSX over the drawing
2. Select **Description** option
3. In the next window, type the data and click **OK** to save

## Add internal case slack

Slack can be added to the calculated cases to obtain round numbers for the case dimensions and/or to add stability. Slack is also recommended to compensate for normal box manufacturing variation.

To add slack to a box, follow this procedure:

1. Select a pallet and its box dimensions will show up in the **Enlarge boxes** cells, below the box drawing
2. Adjust the dimensions to the desired values and exit the editing box

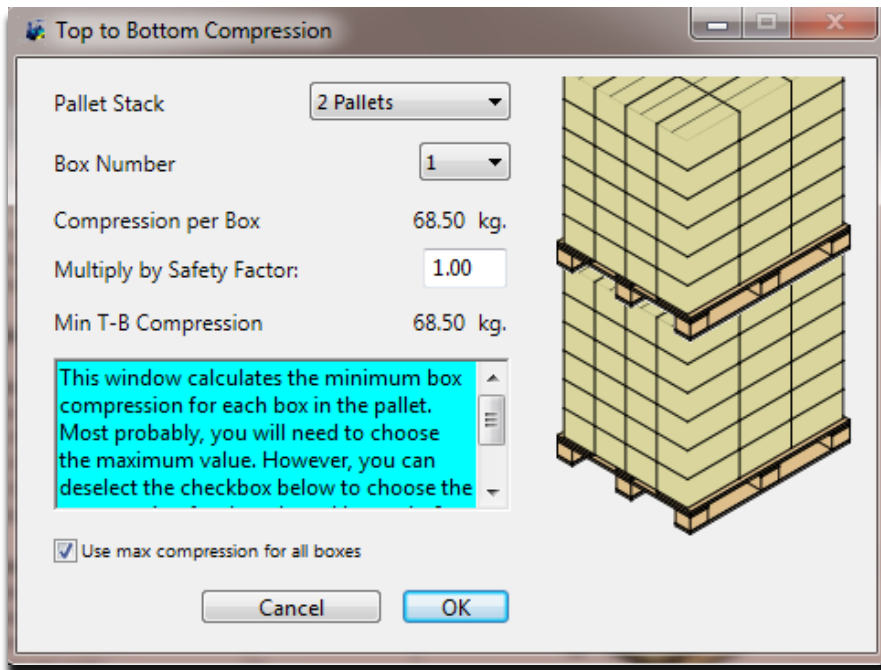
If the resulting pallet dimensions have not exceeded the predetermined limits, then a new box will be created with internal slack.

## Knowing the box compression

The box design should involve the top to bottom resistance of the box in order to protect its contents. This feature helps you know the compression of the boxes in the pallet.

To obtain the box compression, please follow this procedure:

1. From the **Available Solutions** window
2. Select one pallet
3. Go to **Tools** menu and click on **Box Compression**



### Elements of this window

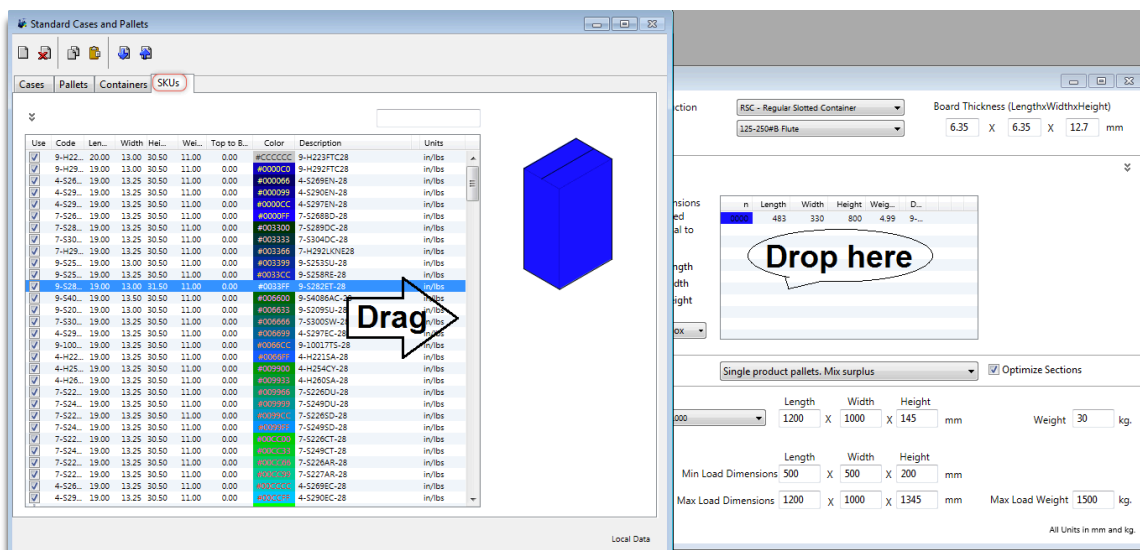
- **Pallet Stack:** If you will be stacking pallets on top of each other, select the total amount of pallets that will be part of a stack. If using racks, choose **1 Pallet**
- **Box Number:** Use this menu to select which box you will display the compression for. Most of the time, we are interested in the compression for the first box from bottom to top
- **Compression Per Box:** Vertical compression that is applied to each box. This number is calculated considering the portion of boxes that are above the selected box and how much those boxes weigh. Note that is number includes the corrugate weight, besides the weight of the box contents
- **Multiply by Safety Factor:** This factor depends on the warehouse humidity, the box handling, the type of box stacking (interlocked or columnar box stacking), among other factors. If your company does not have general guidelines to choose the safety factor, then ask your corrugate box supplier for assistance. Please note that this value should be greater than 1, because it will be multiplied, not divided by the original **Compression Per Box** to obtain the final compression

- **Min T-B Compression:** This number indicates the minimum force that the empty box should withstand in order to protect the box contents and to provide stability to the pallet load. The units for this number will be weight units (kg or lbs)
- **Use Max Compression For All Boxes:** If this item is enabled, then all the boxes in the pallet should be manufactured to support the maximum compression that is present in any of them

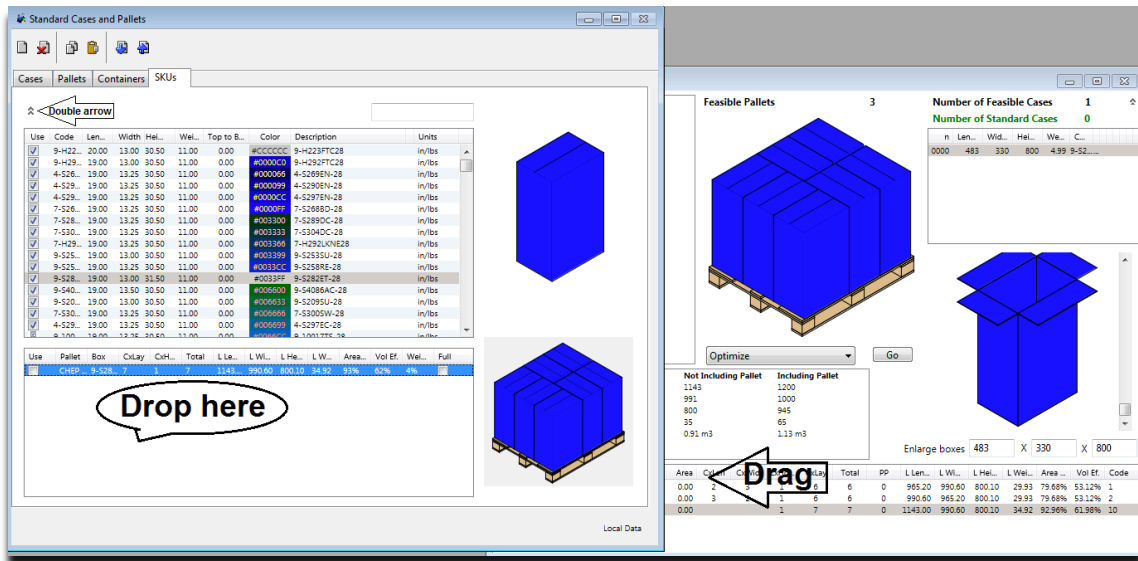
## Saving a solution for later uses (SKUs)

When working with SKUs and you get a solution that you think you will use it later, you can save it and retrieve whenever you want.

1. Click on **File** menu, then **New Data Sheet** and **Box on Pallet**.
2. On the window **Standard Cases and Pallets** click on **SKUs** tab.
3. Select an SKUs, then drag and drop on the **Input Data** window, on the **Case Dimensions** area.



4. Calculate the Available Solutions by clicking on **Tools** menu and then **Recalculate**.
5. Select your preferred solution.
6. On the the window **Standard Cases an Pallets** click on the double arrow to show the area where the solution will be saved.
7. Drag the selected solution and drop on the area **Standard Cases and Pallets** window, on the area to be saved.

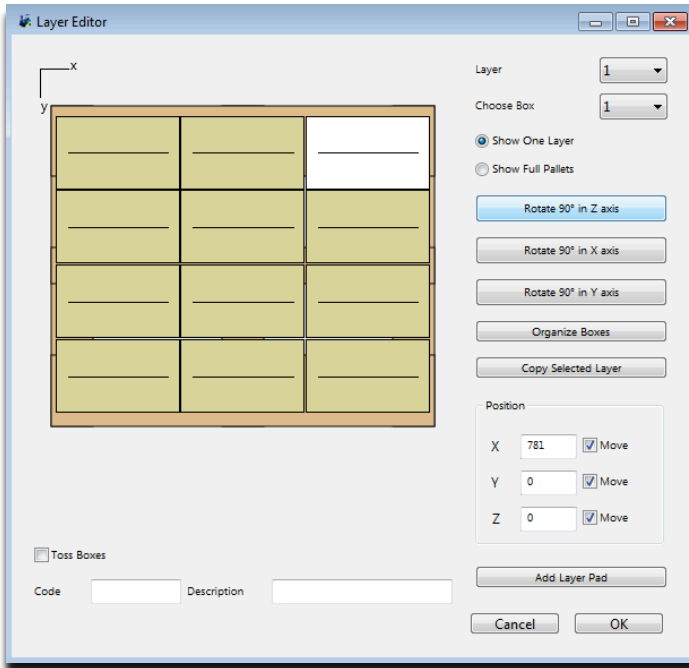


## Layer editor

This feature allows you to change pallet arrangements, make adjustments between the levels, move, delete, import and rotate boxes to get the desired pallet arrangement.

### To open the Layer Editor

1. From the **Available Solution** window
2. Select one pallet from the **Pallet List**
3. Go to the **Tools** menu and click on the **Layer Editor** option



## Main Elements of the Layer Editor

### Pallet Drawing

Displays the selected pallet.

### Layer

A list of the pallet layers.

### Choose Box

The list of boxes per each layer.

### Show One Layer

Displays the drawing of the selected layer.

### Show Full Pallets

Displays the drawing of the full pallet.

### Rotate 90° in Z Axis

Rotates the selected box 90° in the Z axis.

### **Rotate 90° in X Axis**

Rotates the selected box 90° in the X axis.

### **Rotate 90° en el eje Y**

Rotates the selected box 90° in the Y axis.

### **Organize Boxes**

Refreshes the pallet drawing.

### **Copy Selected Layer**

Reapplies the selected level at all levels of the pallet.

### **Position**

This shows the position of the selected box on each axis. You can type a coordinate XYZ and if the movement is possible the box will move. You can move boxes by dragging them with the mouse. To avoid undesired movements, use the check next to each axis.

### **Add Layer Pad/Remove Layer Pad**

Place a pad on the selected layer to add stability.

### **Toss Boxes**

Allow quick movement when dragging boxes with the mouse.

### **Code**

Use this option to assign a box code.

### **Description**

Use this option to assign a box description.

## Change pallet view

To change the pallet view, follow any of these procedures:

- Press **CTRL + T**
- Click on **Toggle Pallet View** on the **View** menu
- Right click on the pallet drawing and select **Toggle Pallet View**
- If you are using OSX, press **CMD + click**

To see a specific layer of the pallet, follow this procedure:

1. Select a layer from pull down menu **Layer**.
2. Change the view pressing **CTRL + T**, until you find the right view

## Move, delete and rotate boxes

### Move

To move a box, you can drag with the mouse to the desired location or type a coordinate in the **XYZ** cells to the right and the box will move.

### Delete

In some cases it is necessary to remove or erase some boxes from the pallet, just select the box, go to the **Edit** menu and click **Delete**.

### Rotate

To rotate boxes, you should work on the top level of the pallet; the highest one, so the box can rotate on all axes without the upper layer blocking the movement. Otherwise, you will hear a beep and the box will not move.

1. To rotate one box, separate from the rest of the boxes, to allow the movement
2. Press any of the axis buttons

You can undo the box movement and return it to its original position, just select the box and go to **Edit** menu and click on **Undo** option. You can repeat this procedure with other boxes.

### Rotate Layers Above

You can find this option by right clicking on the pallet drawing at the **Layer Editor**.



This feature rotates 90° the pallet layers above the select level. For example, if you have a 5 layer pallet and you are working on layer 2, if you click on **Rotate Layers Above**, layers from 2 to 5 are going to rotate and the layer 1 will remain in its place.

## Import boxes

This feature allows you to import boxes that were created and saved with Quick Pallet Maker.

1. From the **Layer Editor**, go to the **File** menu
2. Click on **Insert** and select the **Box** option
3. Then a window will appear for you to select the item, click **Open** to finish

## Duplicate boxes

You can make copies of the boxes, using the **Duplicate** option.

1. From the **Layer Editor**, select one box
2. Go to the **Edit** menu and then click on **Duplicate**

## Use the edited pallet

After editing the pallet in the **Layer Editor**, you can use that pallet to load a shipping container, following this procedure:

1. Click **OK**, the edited pallet will be on the **Available Solution** list
2. Select the pallet and go to the **Tools** menu and click on **Fill Container**
3. Then click on **Recalculate** on the **Tools** menu or press CTRL+ R

# Shipments

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This feature fills cases with primary packages to calculate the amount of pallets that are needed to complete the shipment of a given quantity. This function can be explained into three steps:

1. Quick Pallet Maker creates boxes or fills existing ones, with the given quantity of packages
2. It calculates pallets load for you to choose the best arrangement
3. The result is the amount of pallets you will need to accomplish the shipment of a given quantity of primary package

## Create shipment

This option is available when you are working from primary package. Follow this procedure:

1. Go to **File** menu and select **New Data Sheet**
2. Then click on **Start from PP**
3. Enter the quantity of packages per box in the **Case Count** field
4. On the **Tools** menu, select **Load Multiple Packages** and on the next window define your packages
5. On the **Amount** field, type the total number of packages you need to ship, this will be the quantity of primary packages that your shipment will have, and then click **Done**
6. On the **Start from PP** window, go to the **Tools** menu and click **Recalculate** or press CTRL+R (CMD+R in OSX)
7. In the **Available Solutions** window, select one pallet arrangement and then go to **Tools** menu and click on **Create Shipment**
8. As a result, in the Pallet List will stay only the pallet arrangement you choose, with the amount of primary packages you set on the step 5. You will see as many pallets as needed to accomplish the amount of packages

If you want to put those pallets into a shipping container, follow this procedure:

1. Select all the resulting pallets
2. Go to the **Tools** menu and click on **Fill Container**

# Reports

Quick Pallet Maker provides a set of reports with all the information about the pallets and containers loads. These reports can be exported into different formats as required.

## Detailed Report

This report displays the information of one selected pallet and features four tabs.

**Primary Package**

Type: Rectangular  
 Length: 128 mm  
 Width: 113 mm  
 Height: 175 mm  
 Weight: 1.00 kg.  
 Code: 128011317513C

**Case Information**

Int./External Case Length: 384/390 mm  
 Int./External Case Width: 226/232 mm  
 Int./External Case Height: 175/188 mm  
 Case Corrugate Area: 0.53 sq. m  
 Filled Case Weight: 6.00 kg.  
 Min T-B Compression: 0 kg.  
 Internal Slack in Case Length: 0 mm  
 Internal Slack in Case Width: 0 mm  
 Internal Slack in Case Height: 0 mm  
 RSC - Regular Slotted Container 125-250#8 Flute  
 Internal Divider Type: None  
 Code: box\_128011317513C\_01  
 Description:

**Case Count**: 6

**Pallet Information**

Pallet Number: 0002 Type: CHEP 1200x1000 1

**Cases in Pallet Information**

Cases per Pallet Length: 3  
 Cases per Pallet Width: 4  
 Number of Layers: 6  
 Cases per Layer: 12  
 Total Cases per Pallet: 72

**Pallet Efficiency**

Area Efficiency: 90.70%  
 Volume Efficiency: 85.12%  
 Weight Efficiency: 30.80%  
 Cases to Max. Theoretical Cases: 12  
 Total Primary Packages per Pallet: 432

	L Length	L Width	L Height	L Weight
Not Including Pallet	1171	929	1126	432
Including Pallet	1200	1000	1271	462

Statistical Unit Factor:  Units/SU 0 SU/Pallet

(Insert Lines of Text here)

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## Quick Report

Contains the three main graphics: the primary package drawing, the case drawing and the pallet drawing. Clicking on them with the right button (CMD + click in OSX), allows copying the drawings onto a third-party application.

## HTML

This tab allows you to preview and edit the pallet report as an HTML (web page) file. To change the default drawing, right click (CMD + click in OSX) on the drawing and select from the menu any of the options, and then enable them by clicking the checkbox at the left of the drawing.

## Pallets Views

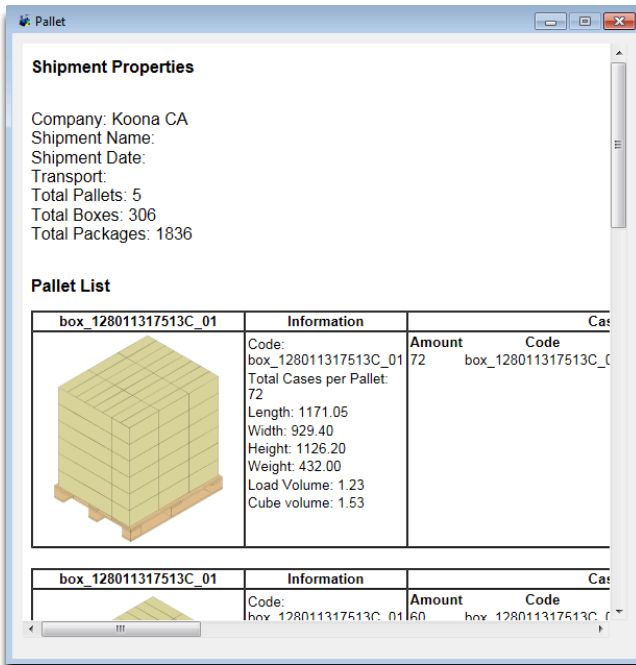
Displays bigger drawing of the selected pallet with different views. You can see each drawing at a time by selecting **Toggle Pallet View** from the **View** menu.

## RSC

Contains the Knocked-Down-Flat (KDF) drawing of a **RSC** box using the dimensions of the selected box. The box that is selected can be changed by using the horizontal scrollbar under the box drawing in the first tab.

## New Multi-Pallet Report With Drawing

This is a HTML report that shows the details of one or more pallets, including the drawings of each one. The difference between this and the regular Detailed Report is the possibility of having more than one pallet in the same report and including the drawings.



## Bill of Materials

HTML report with the pallet properties with and without load, the box list, the load properties and the box location into the pallet.

Pallet Properties											
Type:											
Load Length (without pallet): 1175.82 mm											
Load Width (without pallet): 935.76 mm											
Load Height (without pallet): 954.00 mm											
Load Weight (without pallet): 379.70 kg											
Load Length (including pallet): 1200.00 mm											
Load Width (including pallet): 1000.00 mm											
Load Height (including pallet): 1099.00 mm											
Load Weight (including pallet): 409.70 kg											
Load Properties											
Area Efficiency: 91.69%											
Volume Efficiency: 82.91%											
Weight Efficiency: 27.31%											
Total Boxes: 60											
Total Packages: 360											
Box List:											
Amount	Code	Description	Cost	Length	Width	Height	Weight	Board Area	Box Volume	Color	Package List
60			0	391.94	233.94	190.80	6.33	0.5384	0.02		
Box Location:											
Code	ID	Loading Order	X	Y	Z	Orientation					
	0	1	783.88	0.00	0.00	0					
	0	2	783.88	233.94	0.00	0					
	0	3	783.88	467.88	0.00	0					
	0	4	783.88	701.82	0.00	0					
	0	5	391.94	0.00	0.00	0					
	0	6	391.94	233.94	0.00	0					
	0	7	391.94	467.88	0.00	0					

## Box Coordinates

Quick Pallet Maker can export a comma-delimited file with the X, Y, Z coordinates of all boxes in the pallet. This file can be read by a palletizing machine to arrange boxes in a pallet.

## Managing the reports

### View the Detailed Report

1. From the **Available Solution** window, select one pallet
2. Go to the **Window** menu and click on the **Detailed Report** option

## Print the Detailed Report

1. From the **Detailed Report** window, go to **File** menu
2. Click on **Print Report**, select your printer and preferences if needed

## Save the Detailed Report

Use this feature to save a file containing all the report information. This file can be opened by Quick Pallet Maker at any time as if it were a document. You can save the report without previewing it on screen (procedure 2).

To save a report follows one of these procedures:

### Procedure 1

1. From the **Available Solution** window, select one pallet
2. On the **Window** menu, click on **Detailed Report** option
3. Go to the **File** menu and click on **Save Report**
4. Type a name and save it on your preferred location

### Procedure 2

1. From the **Available Solution** window, select one pallet
2. Go to the **File** menu and click on **Save Report**
3. Type a name and save it on your preferred location

### Open Report

1. From the **Available Solution** window
2. Go to the **File** menu and click on **Open Report**
3. Select the file you want to open

## Export Detailed Report

You can export the Detailed Report in multiple formats, this way you will have the information available for use with third-party applications.

Available formats:

Format	Procedure	What do I get?
TXT	Go to <b>File</b> menu, select <b>Export</b> and then <b>Pallet</b> options, click on <b>Text</b> , set a name and preferred location	First tab of the Detailed Report
XLS	Go to <b>File</b> menu, select <b>Export</b> and then <b>Pallet</b> options, click on <b>To MS Excel</b> , set a name and preferred location	First tab of the Detailed Report
SVG	Go to <b>File</b> menu, select <b>Export</b> and then <b>Pallet</b> options, click on <b>Detailed Report (SVG)</b> , set a name and preferred location	First tab of the Detailed Report
JPG, JP2, PNG, MPI	Go to <b>File</b> menu, select <b>Export</b> and then <b>Pallet</b> options, click on <b>Graphics</b> , set a name and preferred location	First tab of the Detailed Report

**NOTE** All the procedures start from the **Detailed Report** window.

## Save Bill of Materials

1. From the Available Solution window, select one pallet
2. Go to the **File** menu and click on **Export** and then on **Pallet**
3. Click on **HTML Bill of Materials**
4. A window will open for you to set a name and preferred location

## Save Box Coordinates

1. From the **Available Results** window, go to **File** menu

2. Select **Export** and then click on **Pallet** and on **Box Coordinates**
3. A window will open for you to set a name and preferred file location



## Advanced Input Options

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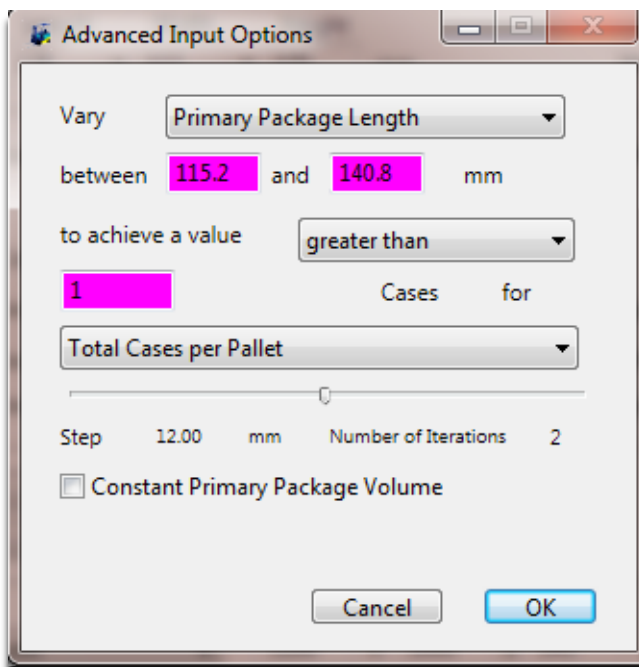
Quick Pallet Maker provides a way to quickly test different scenarios and calculate the best option for a range of scenarios. This feature is called Advanced Input Options. In some cases, you may not be exactly sure about one of the variables that make up the primary package input or one of those variables may be flexible.

Some examples of this situation are the following:

- **Unknown case count:** The amount of primary packages per box can be adjustable within a certain range that will not affect the customer
- **Known volume but unknown dimensions:** The product is sold by volume (e.g. beverage) but the primary package dimensions can vary
- **Variation in permitted pallet height:** The products will be shipped to different locations in which the maximum allowable pallet height is different. The load arrangement and box dimensions must be then optimized for different pallet heights

### To access the advanced features:

1. From **Start from PP** window, go to **Tools** menu
2. Select **Advanced Input Options**



## Main elements of the Advanced Input Options

### Variable

This menu contains the variable to be tested under different scenarios. The options are:

- Primary Package Weight
- Primary Package Length
- Primary Package Width
- Primary Package Height
- Case Count
- Maximum Load Height
- Maximum Load Weight
- Pallet Type

### Variable Range

These two cells indicate the range in which the variable will be tested. For example, you want to calculate the results for a case count from 4 to 24.

### Criteria

This menu allows you to select from a list of comparative criteria. The options are the followings:

- Greater than
- Less than
- In between
- Equal to
- As low as possible
- As high as possible

### Limit Range

Depending on the criterion you select, one, two or none limit range may appear on the criteria list. For example, if you choose **Greater than** criteria, you will be able to set one limit, but if you choose **As low as possible** criteria you will have no limit range to set.

## Target

This menu indicates the variable used for comparing the results. This is the variable that you wish to minimize or maximize. For example, to achieve a number of cases per layer, then select **Cases per Layer** as the target. The options are as follows:

- **Case Corrugate Area**, It refers to the area of corrugated carton per box; the measuring unit is square meters
- **Cases per Layer**
- **Total Cases per Pallet**
- **Area Efficiency**, area occupied by the boxes divided by the available pallet area
- **Volume Efficiency**, space occupied by the boxes divided by the available space within the load
- **Primary Packages/Pallet**, Total number of primary packages per pallet

## Adjustment slider

Adjust the rate of measurement of the variable to be tested. For example, if you use the variable **Maximum Load Height**, you could choose to try every 5 mm instead of 1 mm. This will speed up the calculation time and deliver fewer results for analysis.

## Constant Primary Package Volume

This option is available only when the variable is one of the primary package type. The remaining primary package dimensions will be adjusted accordingly to keep the primary package volume constant. For example, if you wish to calculate the pallet arrangements and box dimensions for a can of beverage by varying the can diameter, the can height will be adjusted to keep the volume of beverage constant.

## Show All Results

This option appears when the you are working with **As high as possible** or **As low as possible** criteria.

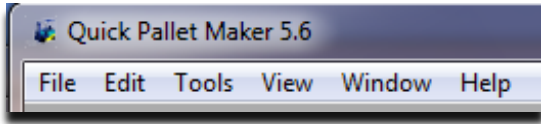
## Only Show Best Result

Instead of displaying all the values, this option will make Quick Pallet Maker find the best value from the list and calculate the pallets for this value.

# Quick Pallet Maker menus

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Learn the actions and features that are in our menus.



## Quick Pallet Maker OSX

- **About QPM:** Displays the version of the program and the registration data. If you have not registered the application, the **Register** button will show
- **Register:** Will display the **Register** window. If you have already registered the application, this menu can be used for changing the user name.
- **Buy QPM:** Begins the process of buying your Quick Pallet Maker license. We appreciate when you choose this option
- **Activate serial number:** Use this option to activate your license number, enter the data that was provided after you purchase
- **Disable serial number:** With this option disables your copy of Quick Pallet Maker
- **Preferences:** Opens the basic settings of Quick Pallet Maker

## File

- **New Data Sheet - Start from primary package:** This option will open a new window that allows pallet calculations based on primary package data. If auto-save has been checked, then the program will open the last saved file
- **New Data Sheet – Box on Pallet:** Opens the simplified input window where you can work with box dimensions
- **New Data Sheet - Fill Container:** If you start optimizing from this option, you can fill containers with boxes and pallets previously calculated or define new elements

- **Close:** Closes the foremost document window. Will not close the **Standard Cases and Pallets** window
- **Load Input Data:** Open files saved with Quick Pallet Maker (.qpm)
- **Save Input Data:** Saves a text file with the input data. If the file has previously been saved, it will overwrite it. If not, it will save with a new name
- **Save as:** Saves the file with another name
- **Insert - Primary Package:** Loads a saved primary package. You can do this from **Start from Primary Package** and **Fill Container** windows
- **Insert - Box:** Loads a saved box to **Start from Box, Fill Container, Available Solutions** and the **Layer Editor** windows
- **Insert - Pallet:** Loads a saved pallet to **Fill Container** and **Available Solutions** windows
- **Insert - Container:** Use this feature to display a full container that has been saved. You can do this from **Fill Container** window
- **Insert - Shipment:** This option lets you view the contents of a container group that has been saved. You can do this from **Fill Container** window
- **Export - Primary Package:** Save package data in two different formats; set a name and preferred location for you file. You can load this item to Quick Pallet Maker through the **Import** option on this menu

Formats are:

Format	Option name	What do I get?
XML	File (XML)	XML of the primary package
SVG	Drawing (SVG)	Primary package drawing

- **Export - Box:** Save box data in different formats. You can load this item to Quick Pallet Maker through the **Import** option on this menu

Formats are:

Format	Option name	What do I get?
XML	File (XML)	XML of the box

SVG	Drawing (SVG)	Box drawing
-----	---------------	-------------

- **Export - Pallet:** Save pallet data in different formats. You can load the XML file to Quick Pallet Maker through the **Import** option on this menu

**Formats are:**

Format	Option name	What do I get?
XML	File (XML)	XML of the pallet.
TXT	Text	First tab of the Detailed Report.
XLS	To MS Excel	First tab of the Detailed Report.
CSV	Box Coordinates	Comma-delimited file with the coordinates X, Y, Z of all boxes in the pallet.
XML	Best per SKU	XML of the SKUs.
XLS	Best per SKU	Exported for MS Excel.
Ti/Hi	Best per SKU	Report ordered by layer and high
SVG	Drawing (SVG)	Pallet drawing.
SVG	Detailed Report (SVG)	First tab of the Detailed Report.
JPG, JP2, PNG, MPI	Graphics	First tab of the Detailed Report
MOV	Palletizing Movie	Animated sequence that depicts the pallet loading box-by-box.
HTML	HTML Bill of Materials	HTML report with the pallet, box and load properties.

- **Export - Container:** Save container data in different formats. You can load the XML file to Quick Pallet Maker through the **Import** option on this menu

**Formats are:**

Format	Option name	What do I get?
XML	File (XML)	XML of the container
SVG	Drawing (SVG)	Container drawing
SVG	Detailed Report	Container drawing
JPG, JP2, PNG, MPI	Graphics	Container drawing
XLS	To MS Excel	Bill of materials and item positions
CSV	CSV Bill of materials	Bill of materials
TXT	Tab-Delimited bill of materials	Bill of materials
HTML	HTML Bill of materials	Bill of materials
-	2D Container Drawings	Options not available
-	Box Orientation	Options not available

- **Export - Shipment:** Save the shipment data in different formats. A shipment can be one or more containers. You can load the XML file to Quick Pallet Maker through the **Import** option on this menu

**Formats are:**

Format	Option name	What do I get?
XML	File (XML)	XML of the shipment
XLS	To MS Excel	Bill of materials and item positions
CSV	CSV Bill Of materials	Bill of materials
TXT	Tab-Delimited Shipment BOM	Bill of materials



TXT                      Tab-Delimited Shipment      Bill of materials  
BOM 2

- **Load Solutions:** Load to Quick Pallet Maker the saved pallets to use them in other calculations
- **Save Solutions:** Saves the selected pallets from the **Available Solutions** window into the folder you choose. The resulting pallets are saved in individual files and named automatically with a consecutive number, starting from "Detailed Report0000"
- **Open Report:** It allows loading the **Detailed Report** you selected. You can do this from the **Available Solutions** and **Start from PP** windows
- **Save Report:** Display the saving window to save the **Detailed Report**
- **Page Setup:** Allows you to select the page layout for printing. **Horizontal** is recommended for all prints except for the display of HTML in the browser
- **Print Report:** With this option you can perform multiple actions depending on where you use this function:

From	Option name	What do I get?
Detailed Report / First tab	Print Report	Print the first tab of the Detailed Report
Detailed Report / HTML tab	Preview in Browser	Viewing the report in your browser
Detailed Report / third and fourth tab	Print Report	Print the images shown
Fill container / Container tab	Print Report	Print the container report
Fill container / Shipment Data	Preview in Browser	Viewing the shipment report in your browser
Available Solutions	Preview in Browser	New Multi-Pallet Report With Drawing

- **Exit:** Ends Quick Pallet Maker

## Edit

- **Undo:** return the boxes to its original position at the **Layer Editor**.

- **Cut:** Basic function to cut an item and paste it later in other place.
- **Copy:** Basic functions that let you copy text and selected items.
- **Copy Report:** Copy the image of the **Detailed Report** to the clipboard.
- **Paste:** Basic functions that let you paste text and selected items.
- **Paste – External Case Length:** Allows you paste the external case length.
- **Paste – External Case Width:** Allows you paste the external case width.
- **Clear:** Delete the selected box in the **Layer Editor**.
- **Duplicate:** Create boxes, pallets and containers, identical to the one selected.
- **Text:** You can resize the editable text of Quick Pallet Maker and change the interface font.
- **Select All:** Allows you mark all the items at once.

## Tools

- **Recalculate:** Calculate box loads with primary package, pallet arrangements and containers.
- **Calculate Box Shipment:** Calculate box and pallets from a shipment.
- **Change Data:** Returns to the input data window.
- **Fill Standard Cases:** This option is available from the Optimize from Primary Package window, and allows you to fill pallets with different primary packages and different standard cases.
- **Advanced Input Options:** Opens the advanced input window, where the data can be set to a range for finding an optimal solution to a given problem.
- **Load Multiple Packages:** Opens the window where you load the list of primary packages and then fill the boxes with these multiple packages.
- **Dividers:** Edit the dividers type and slack of the cases.
- **Fill Container:** Fill the container with the selected pallets in the **Available Solutions** window.
- **Layer Editor:** Opens the **Layer Editor** from the **Available Solutions** window.
- **Pallet Actions:** Pallet arrangements applicable to the selected pallet.
- **Create shipment:** Calculate the number of pallets needed to complete the shipment of a specific quantity of boxes filled with primary packages. You can do this from the **Load Multi Packages** window.

- **Distribute Load Weight:** Centers the load in a container for better handling.
- **Power Sort:** Sorts the list of pallets on the **Available Solutions** window.
- **Box Compression:** This feature helps you know the compression of the boxes in the pallet.
- **Units:** Change the units in which the data is defined in the active window, you can choose from three options available.
- **Round Numbers:** If this option is checked, all calculation results for lengths will be displayed without decimals. This does not affect the weight results, which are always displayed with two decimals.
- **Convert Data On Unit Change:** If activated, the sizes of the loaded elements are automatically converted when changing measurement unit.
- **Delete Saved Solutions:** Delete from the Quick Pallet Maker memory all the temporarily stored calculations.
- **Settings:** Opens the **Preferences for Quick Pallet Maker** window where you can change the program settings.

## View

- **Color:** Display the drawings in color.
- **Black and White:** Display the drawings in black and white. This is useful for printing to monochrome printers.
- **Internal Box View:** Display the box contents (primary packages).
- **External Box View:** Display a closed box or a full tray, whichever the case type.
- **Open Box:** If you are working with an **RSC** box, this action will open the flaps.
- **View Box Contents:** If you are working with an **RSC** box, this action will open the flaps and show the content by removing the front boards. This feature is useful for viewing the effect of slack on the box.
- **Spread Primary Packages:** If this option is checked, the primary package layers will separate as the sliding bar at the right of the box drawing in the **Available Solutions** window is moved upwards.
- **One Pallet Layer:** Shows only the first pallet layer.
- **All Pallet Layers:** Shows all the pallet layers.

- **Show Corner Posts:** Will display the pallet with corner posts, which are the corrugated board supports that are frequently placed on the corners of the pallet load to facilitate stretch-wrapping.
- **Show Top Cap:** Cardboard sheet placed at the top of the pallet.
- **Show Layer Pads:** Cardboard sheets between the layers to provide stability to the pallet.
- **Show Pallets Straps:** The pallet drawing will show a pair of straps per pallet side holding the boxes in place.
- **Show Box Tape:** The pallet drawing will show all boxes with a strap of box sealing tape.
- **Empty Tray:** If the pallet contains trays, this option will show them without contents on the pallet drawing. This is useful for visualizing the tray location which can be confusing with all of the primary packages in place.
- **Center of Gravity:** .Shows the Gravity center.
- **Toggle Pallet View:** Change the view of the selected pallet (front, top, and 3D).
- **Zoom:**

## Window

- **Detailed Report:** Opens the **Detailed Report** window
- **Standard Cases and Pallets:** Display the **Standard Cases and Pallets** window

## Help

- **Quick Pallet Maker Help:** Opens this help
- **Examples on the Web:** Customer cases, practical examples of different functions and situations that can be solved with Quick Pallet Maker
- **Download Instructions:** Downloads a manual of Quick Pallet Maker in PDF format
- **About Quick Pallet Maker:** (Windows only): Displays information about the installed version of Quick Pallet Maker and your license
- **Register** (Windows only): Displays the registration box

- **Buy QPM** (Windows only): Starts the online process for purchasing Quick Pallet Maker to obtain your serial number. We appreciate it greatly when you select this option
- **Activate Serial Number** (Windows only): Use this option only if you are instructed after registering your license of Quick Pallet Maker.
- **Deactivate Serial Number:** (Windows only): Use this option if you want to move your installation of Quick Pallet Maker to another computer; erase the log data from your old computer so you can use the serial that you already have on your new computer
- **Quick Pallet Maker FAQ:** Answers to frequently asked questions about Quick Pallet Maker
- **Examples on the Web:** Customer cases, practical examples of different functions and situations that can be solved with Quick Pallet Maker
- **Download Instructions:** Allows download the instructions from the web.