# **Quick Pallet Maker 4.8.2**

User Manual

Koona, LLC.

http://www.koona.com/qpm

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HELP

# Welcome to Quick Pallet Maker

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?

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** (Windows) or select **Preferences** from the **Quick Pallet Maker** menu (OSX). **Quick Pallet Maker Preferences** window has four tabs: General, Color, Detailed Report and Case constraints.

Quick Pallet Mak	er preferences	
General Color	Detailed Report	Case Constraints
Units	All Units in mr	n and kg.
	All Units in cm	and kg.
	All units in incl	hes and lbs.
🔲 Auto-sav	e last file	
Pallet Divide	er Thickness	125-250#B Flute 🔻
🔽 Shift disp	olay cases toward	ds pallet borders
Default Case	e View	Open Box 🔻
🔲 Don't ch	eck for updates	
		Cancel OK

# 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.

### 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

# **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

# **Case Constraints**

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

# **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.

ses	Pallets										
tandard	d English Uni	it Cases - E	xternal Dir	nensio	ns				•	]	
Use	Length	Width	Height	Туре	Top to B	Box Code	Description	Used			
•	8	8	4	Box	0,00			2			$\sim$
1	8	6	4	Box	0,00			2			
•	8	8	6	Box	0,00			2			
•	8	8	4	Box	0,00			2			
1	8	8	4,5	Box	0,00			2		$\leq$	
1	8	8	6	Box	0.00			2			
1	8	8	8	Box	0.00			2		$\sim$	/
1	8.875	85	12	Box	0.00			2			
ī	8	8	36	Box	0.00			2			Y
1	ă	8	42	Box	0.00			2			
1		5	5	Box	0.00			2			
1	á	6	6	Box	0.00			2			
1	á	ž	Ĕ	Bau	0,00			-			
	-			PACING 1				2			-
•	9	9	6	Box Box	0,00			2	~		
tandarc	9 d Metric Unit	9 t Cases - Ex	6 ternal Dim	Box	0,00 0,00			2	-	]	-
tandarc Use	9 d Metric Unit Length	9 t Cases - Ex Width	6 ternal Dim Height	Box Box iension	0,00 0,00 s Top to B	ottom Comp.	. Description	2 2 Used	- -	]	~
tandarc Use	9 d Metric Unit Length 400	9 : Cases - Ex Width 300	6 ternal Dim Height 200	Box Box tension Type Box	0,00 0,00 s Top to B	ottom Comp. 0,00	. Description	2 2 Used 43	-	]	
tandarc Use	9 d Metric Unit Length 400 400	9 t Cases - Ex Width 300 300	6 ternal Dim Height 200 300	Box Box Type Box Box	0,00 0,00 S Top to B	ottom Comp. 0,00 0,00	. Description	2 2 Used 43 75	-	]	
tandarc Use	9 d Metric Unit Length 400 400	9 : Cases - Ex Width 300 200	6 tternal Dim Height 200 300 300	Box Box Type Box Box Box Box	0,00 0,00 s Top to B	ottom Comp. 0,00 0,00 0,00	. Description	2 2 Used 43 75 7	-		$\rightarrow$
Use	9 d Metric Unit Length 400 400 600	9 t Cases - Ex Width 300 200 400	6 ternal Dim Height 200 300 300 300	Box Box Type Box Box Box Box Box	0,00 0,00 s Top to B	ottom Comp. 0,00 0,00 0,00 0,00	. Description	2 2 Used 43 7 7 7	-		>
tandarc Use	9 d Metric Unit Length 400 400 600 600	9 t Cases - Ex Width 300 200 400 200	6 ternal Dim Height 200 300 300 300 200	Box Box Type Box Box Box Box Box Box Box	0,00 0,00 S	ottom Comp. 0,00 0,00 0,00 0,00 0,00	Description	2 2 Used 43 75 7 7 7 7	•		>
Use Use	9 d Metric Unit Length 400 400 600 600 330	9 Cases - Ex Width 300 200 200 200 200 200	6 tternal Dim Height 200 300 300 300 200 200	Box Box Type Box Box Box Box Box Box Box Box	0,00 0,00	ottom Comp. 0,00 0,00 0,00 0,00 0,00	. Description	2 2 Used 43 75 7 7 7 7 7	•		>
tandard Use	9 d Metric Unit Length 400 400 600 600 600 600 600 400 400	9 Cases - Ex Width 300 200 400 200 200 200 250	6 ternal Dim Height 200 300 300 300 200 200 300	Box Box Box Type Box Box Box Box Box Box Box Box Box	0,00 0,00	ottom Comp. 0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,	. Description	2 2 43 75 7 7 7 69	•		>
Use	9 d Metric Unit Length 400 400 600 600 600 600 600 600 600 600	9 Cases - Ex Width 300 200 400 200 200 200 250 300	6 tternal Dim Height 200 300 300 300 200 200 200 200 300 300	Type Box Box Type Box Box Box Box Box Box Box Box Box Box	0,00 0,00	ottom Comp. 0,00 0,00 0,00 0,00 0,00 50,00 0,00	. Description	2 2 43 75 7 7 7 7 69 7	•		>
tandard Use	9 Length 400 400 600 330 400 500 500	9 Cases - Ex Width 300 200 200 200 200 200 200 200	6 ternal Dim Height 200 300 300 200 200 200 200 200 200 200	Type Box Box Type Box Box Box Box Box Box Box Box Box Box	5 Top to B	ottom Comp. 0,00 0,00 0,00 0,00 50,00 50,00 0,00	. Description	2 2 43 75 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 10	•		>
tandaro	9 d Metric Unit Length 400 400 600 600 600 330 400 500 500 200	9 Cases - Ex Width 300 200 400 200 200 200 200 200 2	6 ternal Dim Height 200 300 300 200 200 200 200 200 200 200	Box Box Type Box Box Box Box Box Box Box Box Box Box	0,00 0,00 s	0,00 0,00 0,00 0,00 0,00 0,00 50,00 0,00 0,00 0,00	. Description	2 2 43 75 7 7 7 69 7 10 12			
Use Use	9 Length 400 400 600 600 330 400 500 500 500 500 500 400	9 Cases - Ex Width 300 200 400 200 200 200 200 200 2	6 ternal Dim Height 200 300 300 200 200 200 200 200 200 200	Box Box Type Box Box Box Box Box Box Box Box Box Box	0,00 0,00 s	ottom Comp. 0,000 0,000 0,000 0,000 50,000 0,000 0,000 0,000 0,000 0,000 0,000	. Description	2 2 43 75 7 7 7 7 7 69 7 7 10 12 38	•		
Use Use	9 Length 400 400 400 600 600 600 600 600	9 Cases - Ex Width 300 200 200 200 200 250 300 250 300 300 300 300	ternal Dim Height 200 300 300 200 200 200 200 200 200 200	Box Box Box Type Box Box Box Box Box Box Box Box Box Box	0,00 0,00 s	ottom Comp. 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	. Description	2 2 43 75 7 7 7 7 69 7 10 12 38 0	•		
tandarc Use	9 Length 400 400 600 600 330 400 500 500 500 500 500 500 500 500 50	9 Width 300 200 400 200 250 300 250 300 300 300 300 300 300 300	tternal Dim Height 200 300 200 300 200 300 200 200 200 250 250 210 210 210 210 210	Box Box Type Box Box Box Box Box Box Box Box Box Box	0,00 0,00 s	ottom Comp. 0,00 0,00 0,00 0,00 50,00 0,00 0,00 0,	Description	2 2 43 75 7 7 7 7 69 7 10 12 38 0 0	•		

# **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)

Cases	Pallets				
Standard	d English Un	it Cases - E	xternal Di	mensio	ons
Use	Length	Width	Height	Type	Top to B
	8	8	4	Tray	0,00
<b>V</b>	8	6	4	Box	0,00
<b>v</b>	8	8	6	Box	0,00

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.

Use
<b>v</b>
<b>V</b>
1

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 **Type** column of the table and perform calculations on specific types of cases.

Type Tray Box Box Box Box Box Box Box Box Box

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



To add vertical compression, please follow this procedure:

- 1. Select the box and double-click on it
- 2. 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.

ses Pallets					
Default Pallet	CHEP	1200x100	0		
Name	Length	Width	Height	Weight	Units
CHEP 1200x1000	1200	1000	145	30	mm
	1200	800	145	30	mm
Europallet 1200x800				6615	in
Europallet 1200x800 CHEP Pallet 48inx40in	48	40	4,875	00,15	
Europallet 1200x800 CHEP Pallet 48inx40in GPC Pallet 48inx40in	48 48	40 40	4,875 5,375	66,15	in

### Edit, add or delete standard pallets

Edit pallets

- 3. Select the pallet and double-click on it
- 4. 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 second tab of the **Standard Cases and Pallets** window. We provide a list of containers that can be modified or expanded to include more.

Default Contain	er	Dry	Cargo 20			•
Name	Int. Le	Int. Wi	Int. Hei	Door	Door	Wei
Dry Cargo 20'	5,90	2,34	2,39	2,33	2,28	21778
Dry Cargo 40'	12,03	2,34	2,39	2,33	2,28	26757
High Cube 40'	12,01	2,33	2,69	2,33	2,69	25841
Dry Cargo 45'	13,60	2,30	2,60	2,30	2,55	28390
Dry Cargo 48'	14,50	2,50	2,70	2,30	2,65	25556
Dry Cargo 53'	15,90	2,50	2,70	2,30	2,65	25841

### 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.

# **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 4 👘 🔲 🗰 💽
Primary Package       Package Shape       Rectangular       Dimensions Allowed Vertical to Pallet       V Length         Information       Length       Width       Height       Image: Height
Case     Construction     RSC - Regular Slotted Container     Board Thickness (LengthxWidthxHeight)       Information     125-250#C Flute     7,94     X     15,8     mm
Case Count         Case Constraints         Minimum         Maximum         Minimum         Maximum           External Case Length         50         600         mm         Length/Width Ratio         1         3           External Case Width         50         600         mm         Length/Height Ratio         0,5         3           Case Properties         External Case Width         50         600         mm         Length/Height 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       mm
Pallet Dimensions     Length     Width     Height       CHEP 1200x1000       Illing     X     1000     X     145     mm     Weight     30     kg.
Load Properties         Length         Width         Height           (Including Pallet)         Min Load Dimensions         500         X         500         X         150         mm           Max Load Dimensions         1200         X         1000         X         1200         mm         Ver. 482
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:

#### Туре

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 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.

# **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

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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.

### **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.

#### **Try All Standard Pallets**

Quick Pallet Maker will create loads that use all the standard pallets in the list, and all result will be listed in the **Available Solutions** window.

#### **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 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.

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) Wight
  - e) Height

  - f) Weightg) 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 File menu, select New Data Sheet, and then click on Start from Box

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 **File** 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

### **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.

Case Proper	ties	-											$\sim$		
Length	350	mm	Amount T	ype Box	Length 400	Width 360	Heigh	nt	Weight					$\geq$	
Width	300	mm	0160 B	Зох	350	300	200		2,00			/			/
Height	200	mm									$\sim$				
Weight	2,00	kg.										Ť			
Amount	160	1					l	-+ D		1					
Dimensions	Allowed V	ertical To C	Ad	dd Box			Length			Width		V He	ight		
Dimensions Container Ty	Allowed Vi	ertical To C	Container go 20'	dd Box	· ]		Length	1		Width	g Rate p	✓ He er Conta	ight iner [	0 US\$	
Dimensions Container Ty Load Proper	Allowed Vo rpe ties	ertical To C Dry Carg Load Fro	<u>Container</u> go 20' om Back To Fro	dd Box ▼			Impo	1		Width Shipping	g Rate p	I He er Conta	ight iiner	0 US\$	
Dimensions Container Ty Load Proper	Allowed Vo rpe ties	ertical To C Dry Carg Load Fro	Container go 20'	ont	Length	•	Length Width	1	Height	Width Shipping	g Rate p Max	✓ He er Conta Load We	ight iner	0 US\$ 21778	k
Dimensions Container Ty Load Proper	Allowed Vi pe ties	ertical To C Dry Carg Load Fro	<u>Container</u> go 20' om Back To Fro	ent	Length 2950	• X	Unpt Length Width 1170	) X	Height	Width Shipping	g Rate p Max	✓ He er Conta Load We	ight iiner	0 US\$ 21778	k
Dimensions Container Ty Load Proper	Allowed Vi pe ties	ertical To C Dry Carg Load Fro M M	Container go 20' om Back To Fro lin Load Dimer	ont nsions (	Length 2950 5900	• X X	Width 1170 2340	) ) ] X ] X	Height 1195 2390	Width Shipping mm mm	g Rate p Max	I He er Conta	ight iner	0 US\$ 21778	k

# **Input Data**

#### 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.

#### **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

Select from the menu, how would you like Quick Pallet Maker to load your container, whether it is **Load From Back to Front** or **Load From Bottom to Top**.

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

Range of load.

#### **Internal Dimensions**

Defines the usable space of the container.

#### **Optimize Sections**

Sorts the boxes inside the container to fit a higher number.

### Container

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.

#### 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.

#### **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

#### **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**

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

### Create 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) Wight
  - e) Height

  - f) Weightg) 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 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 File 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.



### **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
- **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 **File** 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 on the image or go to the **View** menu
- 3. Select one option from the list or press CMD + click on OSX

#### 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: Cardboard sheet placed at the top of the pallet
- Show Layer Pads: 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

### 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

Kara Top to Bottom Compression		
Pallet Stack 2 Pa	llets 🔻	$\wedge$
Box Number	1 •	
Compression per Box	59,46 kg.	
Multiply by Safety Factor:	1,00	
Min T-B Compression	59,46 kg.	
This window calculates the mir compression for each box in th Most probably, you will need to the maximum value. However, deselect the checkbox below to	imum box e pallet. o choose you can o choose the $rection rections the second $	
Use max compression for all boxes	OK	

#### 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

# 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

候 Layer Editor	
x y	Layer 1 Choose Box 0
	Show One Layer     Show Full Pallets      Portate 90% in 7 avia
	Rotate 90° in X axis
	Rotate 90° in Y axis Organize Boxes
	Copy Selected Layer Position
	X 336 V Move Y 0 V Move
Toss Boxes	Z 0 V Move
Code Description	Add Layer Pad Cancel OK

# 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 90º en el eje Y

Rotates the selected box 90° in the Y axis.

#### **Organize Boxes**

Refreshes the pallet drawing.

#### **Copy Selected Layer**

Quick Pallet Maker User Manual 4.8.2

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 Toggle Pallet View of the right panel
- 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 axii 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**

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 4. 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.



#### **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	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): 957.00 mm Load Length (including pallet): 1000.00 mm Load Width (including pallet): 1009.00 mm Load Height (including pallet): 1009.00 mm Load Weight (including pallet): 1009.00 mm Load Weight (including pallet): 1009.00 mm												
Load	Pro	operties										
Area E Volume Weight Total B Total P <b>Box I</b>	Area Efficiency: 91.69% Volume Efficiency: 82.91% Weight Efficiency: 77.31% Total Boxes: 60 Total Packages: 360 Box List:											
Amo	unt	Code Descr	iption	Cost L	ength	Width	Height	Weight	Board Area	Box Volume	Color	Package List
60				0 3	91.94	233.94	190.80	6.33	0.5384	0.02		
Box L	Box Location:											
Code					7	Orient						
	ID	Loading Orde	X	Y	2	Orient	ation					
	ID 0	Loading Orde	783.8	Y 3 0.00	0.00	0	ation					
	1D 0 0	Loading Order	783.8 783.8	¥ 3 0.00 3 233.94	2 0.00 4 0.00	0 0	ation					
	1D 0 0	Loading Order 1 2 3	783.8 783.8 783.8 783.8	Y 3 0.00 3 233.94 3 467.88	2 0.00 4 0.00 3 0.00	0 0 0 0						
	1D 0 0 0	Loading Order 1 2 3 4	X 783.8 783.8 783.8 783.8 783.8	Y           3         0.00           3         233.94           3         467.88           3         701.82	2 0.00 4 0.00 3 0.00 2 0.00	0 0 0 0 0						
	ID 0 0 0 0	Loading Order 1 2 3 4 5	<ul> <li>X</li> <li>783.8</li> <li>783.8</li> <li>783.8</li> <li>783.8</li> <li>783.8</li> <li>391.9</li> </ul>	Y           3         0.00           3         233.94           3         467.88           3         701.82           4         0.00	2 0.00 4 0.00 8 0.00 2 0.00 0.00	0 0 0 0 0 0 0						

# **Palletizing Movie**

0 7

391.94 467.88 0.00

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It is an animated sequence that depicts the pallet and container loading box-by-box. The palletizing sequence is captured frame by frame. The time that this takes depends on the amount of cases per pallet (equal to the number of frames) and your computer speed





**NOTE** This feature requires the free installation of QuickTime, an Apple product. You can download it directly from their website through this link: <u>http://www.apple.com/es/quicktime/</u>

# **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.

### **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?
ТХТ	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 File menu, select Export and then Pallet options, click on To MS Excel, set a name and preferred location	First tab of the Detailed Report
SVG	Go to File menu, select Export and then Pallet options, click on Detailed Report (SVG), 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

### Create a palletizing movie

- 1. From the **Detailed Report**, go to **File** menu
- 2. Click on Export and then click on Pallet and select Palletizing Movie
- 3. A window will open for you to set a name and preferred location
- 4. In the next window called **Compression settings**, we recommend **Animation** as the **Compression Type**

**NOTE** This feature requires the free installation of QuickTime, an Apple product. You can download it directly from their website through this link: <u>http://www.apple.com/es/quicktime/</u>

### 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**

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

Advanced Inp	Advanced Input Options					
Vary	Primary Pa	ckage L	ength.	•		
between	115,2 a	nd 14	40,8	mm		
to achieve	a value	great	er than			
1			Cases	for		
Total Cas	es per Pallet			•		
		0				
Step 0	),51 mm	Nu	mber of Ite	rations 50		
🔲 Consta	Constant Primary Package Volume					
	Cancel					

# 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**

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 PP: 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 Start from Box: 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

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

Format	Option name	What do I get?
XML	File (XML)	XML of the box
SVG	Drawing (SVG)	Box drawing
MOV	Movie	Animated sequence that depicts the box loading.

• 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

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

- Export Pallet 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

Format	Option name	What do I get?
XML	File (XML)	XML of the container
SVG	Drawing (SVG)	Container drawing
JPG, JP2, PNG, MPI	Graphics	Container drawing
Imprint	Fill Sequence	Print the container fill sequence
XLS	To MS Excel	Bill of materials and item positions
MOV	Movie	Animated sequence of the container load item by item
CSV	CSV Bill of materials	Bill of materials
ТХТ	Tab-Delimited bill of materials	Bill of materials
HTML	HTML Bill of materials	Bill of materials
-	2D Container Drawings	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

Format	Option name	What do I get?
XML	File (XML)	XML of the shipment
XLS	To MS Excel	Bill of materials and item positions
XLS	Export BOM to Excel	Bill of materials on a different presentation
CSV	CSV Bill Of materials	Bill of materials
ТХТ	Tab-Delimited Shipment BOM	Bill of materials

- 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

• Exit: Ends Quick Pallet Maker

### Edit

- Undo: return the boxes to its original position at the Layer Editor
- Copy / Paste: Basic functions that let you copy and paste text and selected items
- Copy Report: Copy the image of the Detailed Report to the clipboard
- Delete: 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

### Tools

- Recalculate: Calculate box loads with primary package, pallet arrangements and containers
- Calculate Multiple Boxes: This feature allows you to mix multiple box sizes in a pallet sequence. You can do this from Start from PP
- Change Data: Returns to the input data window
- 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 Preferencias para 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
- **Toggle Pallet View:** Change the view of the selected pallet (front, top, and 3D)

# 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
- 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: 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