

LOGEN SOLUTIONS

CubeDesigner Desktop Professional User Guide



VERSION 1.1

LOGEN SOLUTIONS

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Preface

About CubeDesigner

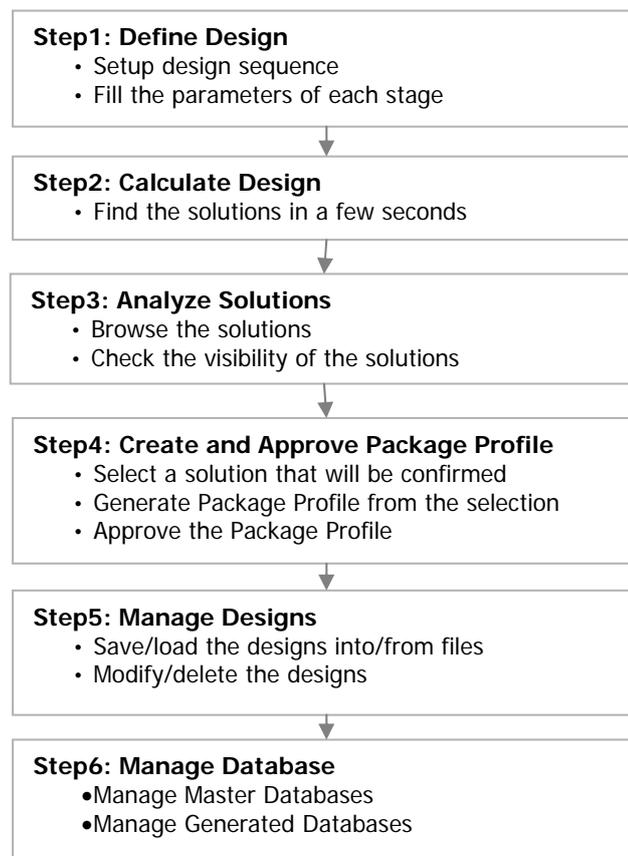
Congratulations on purchasing CubeDesigner. You're now the owner of the most advanced packaging software in the world. CubeDesigner is extremely powerful and has proven to save millions of dollars for thousands of companies due to the efficiencies you'll realize in your business. We're confident that CubeDesigner will provide the same benefit to your company, regardless of your product, package or volume.

We've engineered CubeDesigner to meet the needs of the packaging professional. The software allows you to conduct a comprehensive range of analyses based on your product, package requirements, equipment and operations. You'll be able to perform operations that were never before possible without a quality software system.

Over the years, we've maintained a steady effort to simplify our software so that you, the end user, are able to conduct your packaging analysis quickly and efficiently. Just in case you have a problem, we've written this User Guide to assist you with every possible issue or question you might have.

Design Workflow

CubeDesigner provides a well-defined workflow for your efficient package designs. The workflow has independent processes and are linked each view. It is defined as the sequential chain of the steps as below.



Getting Started

System Requirements/Specifications

To install and run CubeDesigner software, your system needs to meet the following requirements:

- **Platform:** Windows 2000, NT, XP (Windows 95, ME, 98 is NOT available)
- **Network:** Any network is compatible. CubeDesigner2003 is not network protocol dependent; it only needs a file server.
- **Processor Required:** Any processor capable of running the installed platform (200 MHz Recommended).
- **Hard Disk Space Required:** 30 MB
- **RAM Required:** 16 MB (32 MB or more Recommended)
- **Video Required:** 800 x 600 at 256 colors or higher (1024 x 768 Recommended)

CubeDesigner software uses 32-bit code. For import/export of data, CubeDesigner uses ASCII comma delimited text files compatible with most document management systems, spreadsheets, databases and mainframes, including Excel, Access, Paradox, AS400 and UNIX platforms.

Starting CubeDesigner

Installing the Program

The following instructions describe how to install CubeDesigner on your PC.

- Insert the installation CD into your driver
- Click [start] menu at task bar and select [Run] menu
- Enter the following command and press enter key.

[Your CD driver name]:\CubeDesignerSetup.exe

- Or locate the file – CubeDesignerSetup.exe from the windows explorer and launch the program by double click the left button of your mouse or press the enter key at your keyboard.
- You will meet the below screen displaying the information of installation guide. Just follow the guide of the program to install CubeDesigner.



Figure 1 Screen of the Installation

Installing the Hardware Lock key Driver

You should install the driver for hardware lock key in case the hardware lock key is the parallel type and your operating system is Windows NT/2000 also.

- Enter the following command and press enter key.

[Your CD driver name]:\\SetupLockkeyDriver.exe

- Just follow the guide of the program to install it.

Starting the Program

Before launching the program you may need to **insert the hardware lock key into the printer port or USB port at your computer.**



Figure 2 Hardware lock key

After then click [Start] menu at task bar and select [Program] menu and select [CubeDesigner Desktop] from [VMS] in order to start the program.

Troubleshooting

ERROR MESSAGE WHEN LOCK KEY IS MISSING ON THE PROGRAM STARTING.



Figure 3 Error message on missing lock key

CubeDesigner requires the hardware lock key installed at the computer to verify the license. This screen may appear when you didn't insert the lock key into the USB port at your computer. You may need to insert it to make CubeDesigner start correctly.

Getting Support

We understand that your need for service doesn't end with the implementation of the product. We provide outstanding on-going technical support. Our customer service team is available to answer your questions.

If you have a question, or a technical problem, please check the FAQ at <http://www.logensolutions.com/VMS/FAQ/faq.htm> first. There you will find answers to most of the common questions we get asked. Remember 90% of all support questions we receive are the same, and the answer is probably already on our web site just a few clicks away. If you do not find an answer in the FAQ lists, support is available on site, by phone, by email.

Write to support@LogenSolutions.com and include:

- The problem and how it can be reproduced. (if applicable)
- The product name, version number and build number.
- Your Operating system (95, 98, 2000, NT or XP).
- Computer information (Pentium, Pentium Pro, Pentium II etc.).
- Any other information you think may be helpful.

You can get technical support on line over the Internet at <http://www.logensolutions.com/VMS/TechSupport/default.asp>.

Common Features

CubeDesigner has similar interfaces as Microsoft Outlook Express. It provides rich ways for you to handle the Designs workflow including entering load data, running Design and retrieving results of the Design.

The following picture gives conceptual view of the structure of interfaces. You can see the several bars and task-view area that will be occupied by three task views. The task views are activated by clicking the icons in Task Bar at left of the program.



Figure 4 Conceptual View of Screen

Menu Bar: This is composed of the classified functions for the user's convenience. If each menu selected, the sub-menu will appear. And if the desired item selected, the item will execute the command.

Tool Bar: The menu items used commonly will be shown in the form of icon.

Task Bar: It contains the shortcut icons of three task views.

Task-view Area: It will be occupied by task view.

Tab System: CubeDesigner uses tabs throughout the system. Tabs allow you to quickly and easily switch back and forth between different data entry areas or sub-screens.



Figure 5 Tab Systems

Opening an Existing Design

Use one of two options in order to open an existing Design.

- Open the [File] menu and select [Open].
- Go to the Today view, select a file name to open and click [Open] button.

Starting New Design

Use one of two options in order to start a new Design.

- Open the [File] menu and select [New].
- Go to the Today view and click [New] button.

Exiting the Program

In order to exit CubeDesigner, open the [File] menu and select [Exit]. If you've made any changes since you last saved the active file, CubeDesigner prompts you to save the file. If you need to save any changes, click [Yes]. CubeDesigner saves your changes and shuts down the system.

The Basics

Define Design

Introduction

This Design View provides the functions to define and calculate a package design and browse the results. This screen is made up of the Command area and Package Design Sequence area. The Command area allows you to define the design sequence and start the calculation of the design. The Package Design Sequence area allows you to define the parameters of each design stage, see the solutions of the calculation and generate the package profile from the solutions.

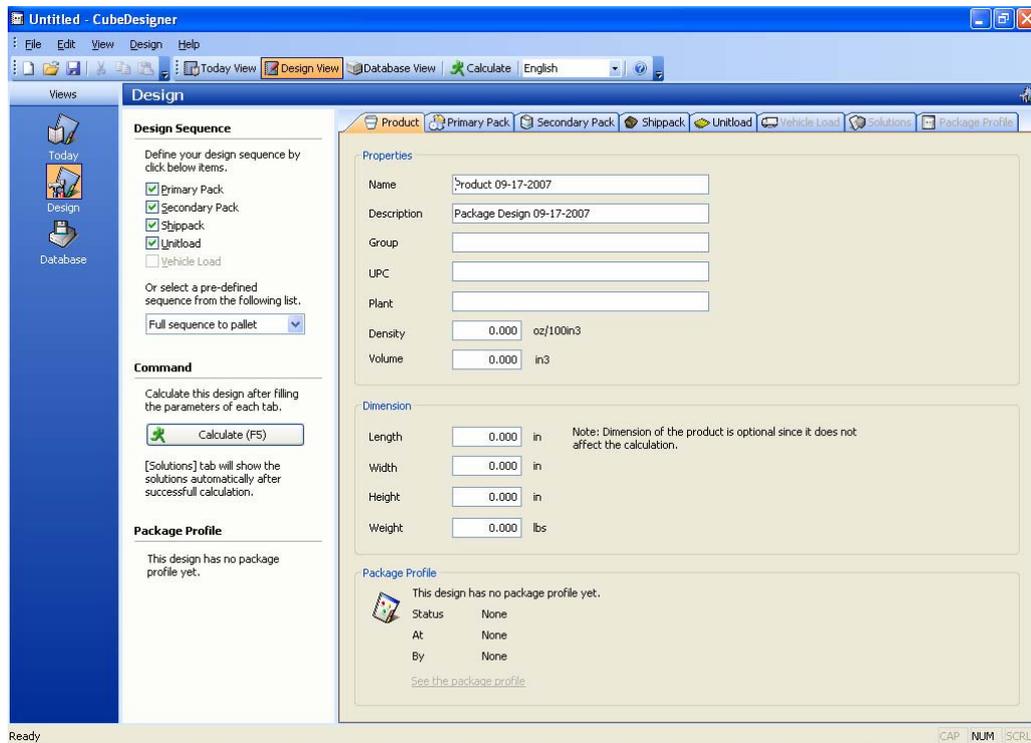


Figure 6 Design View

Open the Design View

Use one of two options in order to open this view.

- Open the [View] menu and select [Design].
- From the Task List, click [Design] button.

Command Area

The Command Area, as pictured below, allows you to set up a Package Design Sequence, in which you select the various stages to be used in a design and start the calculation of the design. It allows you to save and load the current settings to a file. It also allows you to see the status of the workflow for the current design.

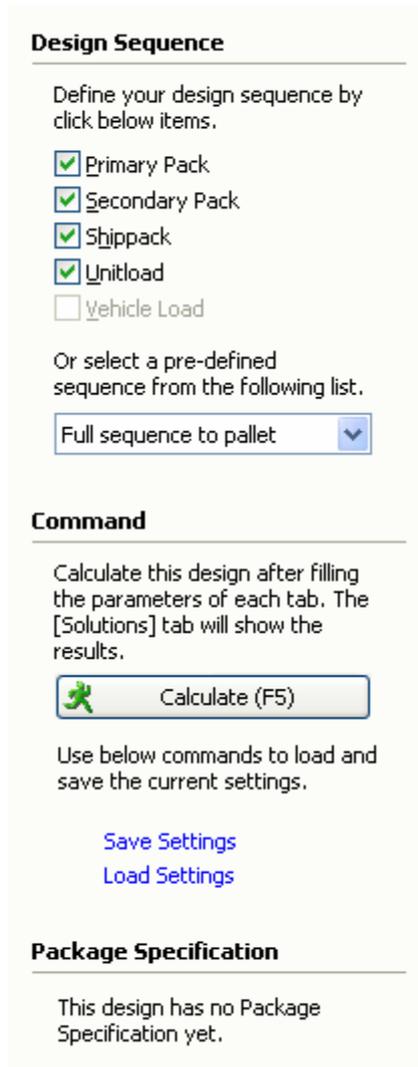


Figure 7 Command Area

As you can see in the Design Sequence, there are five check buttons, each of which represents a stage of a design. To select an item, click on that item in the list. As you select each stage, the corresponding icon will activate in the Package Design Sequence Area of the Design View. To inactivate an icon from that area, simply click on the button again.

The Command includes three buttons to allow you to start a calculation of the design and save/load the current settings of the design to/from a file.

Calculate (f5): Starts the calculation of the design. The results of the calculation will be shown in the Solutions tab of the right area if there are not errors of the calculation.

Save Settings: It allows you to save the current settings of the design parameters, and the Unit of Measure and Design Sequence to a file. You will be prompted to enter a name of file to save in the File Open dialog window.

Load Settings: It allows you to load the existing settings from a file that was created before. You will be prompted to select a file from the File Open dialog and the selection will overwrite the current settings of the design parameters, and the Unit of Measure and Design Sequence.

Package Design Sequence Area

The Package Design Sequence Area is the area on your screen in which you define a series of stages selected to perform a calculation. For example, let's say you selected two stages from the Command area: Primary Pack and Unitload. The corresponding icons will activate in the Package Design Sequence Area, as pictured below.

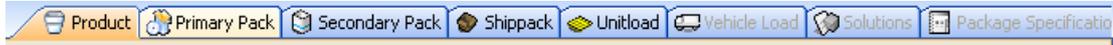


Figure 8 Package Design Sequence Area

The icons you see in this figure are often referred to, respectively, as the Primary Parameters tab and the Unitload Parameters tab. This represents a Package Design Sequence in which you'll find the best solution for this design: a product into a carton and onto a pallet.

Next, when you click on any of these icons, a window will appear and allow you to define the parameters of that particular stage in the sequence. For example, when you click on the Primary Pack icon, the Primary Pack Parameters window appears, and you'll tell the system precisely how your packs are designed in terms of dimensions, weight, shape, etc.

Define Parameters

Introduction

This appendix presents the parameters windows of the Package Design Sequence Area as well as the solutions and package profile windows. For each window, this appendix provides the following information:

- The function of the window
- A graphic image of the window
- Instructions on how to access the window
- Descriptions of all fields on the window
- Any special features included on the window

Bulge Factor

CubeDesigner allow you to account for the bulge factor as you define parameters for an item – carton and shippcase, etc. What is bulge? Bulge is space inside a container that can be measured as positive or negative.

If a container expands when you fill it with product, the result is a positive bulge. If a container is compressed when it's packed, the result is a negative bulge. The bulge factor allows you to shift the amount of space a container takes up without changing its reported size. Let's consider two examples.

POSITIVE BULGE

A gallon bottle of bleach may have a designed diameter of seven inches. However, once the liquid is poured into the bottle, the bottle may expand (bulge) another quarter-inch. By adding a bulge of 0.25 inches along the diameter of the bottle, CubeDesigner will design the bottle as if it has a diameter of 7.25 inches, but will report its size as a seven-inch bottle.

NEGATIVE BULGE

Suppose you're packing rolls of paper towels into a bundle; each roll has a diameter of six inches. However, once the rolls are packed they might compress up to an inch, resulting in a negative bulge of one inch. CubeDesigner will report the rolls as having a six-inch diameter, but in fact the rolls will take up only five inches in the bundle.

Primary Pack Parameters

This window allows you to define parameters of carton for a primary pack.

The screenshot shows the 'Primary Pack Parameters' window. At the top, there are tabs for Product, Primary Pack, Secondary Pack, Shippack, Unitload, Vehicle Load, Solutions, and Package Profile. The 'Primary Pack' tab is active.

Construction Section:

- Name: [Empty text box]
- Style: Standard Reverse Tuck - No Minor Flaps (dropdown)
- Materials: ROVALIVORV400 (dropdown)
- Net Weight: 0.000 lbs, Caliper: 0.019 in
- Gross Weight: 0.000 lbs

Graphics Section:

- 3D model of a green carton with dimensions: 3.543 (length), 3.15 (width), 2.717 (height).
- Color selection dropdown: [Green]

Sizing Section:

- Type: Fixed, New, Database
- Length (in): 3.543, Width (in): 3.149, Height (in): 2.716, Volume (in3): 0.000
- Length (in): 10.826, Width (in): 10.826, Height (in): 14.763, Volume (in3): 0.000
- Length (in): 0.000, Width (in): 0.000, Height (in): 0.000, Volume (in3): 0.000
- Vertical: (top), (middle), (bottom)
- Database: [Define Database](#)

Use	Name	Length(in)	Width(in)	Height(in)	Weight(l...)	Volume(i...
<input type="checkbox"/>	Carton4	5.556	4.016	4.055	0	90.474
<input type="checkbox"/>	NEW200...	3.543	3.15	2.717	0	30.317

Dimensions Section:

- Inside, Outside
- Buttons: [Advanced](#), [Save Settings](#)

Figure 9 Primary Pack Parameters Window

Name: Type in the first few letters of the carton for primary pack.

Note: This field displays only if you select Fixed or New Sizing Type.

Style: Select the style of the carton you want to use.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: CubeDesigner uses the selected style, along with the caliper of the material to calculate the difference between inside dimensions and outside dimensions.

Materials: Specify the material used to make the carton. If you select a pre-defined material, CubeDesigner will automatically insert dimensions in the Caliper field.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: The drop-down list contains materials that are already set up in the database. If the material you want is not on the list, you can add it to the database using the Materials Database window.

Net Weight (lbs/kg): Enter the net weight of the carton in pounds or kilograms, depending on the Units selected.

Gross Weight (lbs/kg): Enter the gross weight of the carton in pounds or kilograms, depending on the Units selected. Gross weight must be greater than or equal to net weight.

Caliper (in/mm): Enter the caliper of the carton in inches or millimeters, depending on the Units selected.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: The caliper is used to calculate the inside vs. outside dimensions of the carton.

Sizing Type: Select either New, Fixed or Database to specify the type of carton you want to use in your analysis.

- A **new** will create a new carton based on other information you enter on the screen.
- A **fixed** requires you to enter the dimensions of a fixed carton.
- A **database** analysis goes through the cartons defined and stored in the database.

For the following three fields – **Length**, **Width** and **Height** – if you selected New carton, you'll need to enter **Minimum**, **Maximum** and **Incremental** dimensions.

- **Length** (in/mm): Enter the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Width** (in/mm): Enter the width of the shipcase in inches or millimeters, depending on the Units selected.
- **Height** (in/mm): Enter the height of the shipcase in inches or millimeters, depending on the Units selected.

For the following **Volume** field, if you selected New or Database Sizing Type, the system will prompt you to enter Minimum and Maximum volume dimensions.

Volume (in³/l): Enter the volume of the carton in inches cubed or liters, depending on the Units selected.

Note: This field allows you to adjust the carton's volume to eliminate any undesired dimensions.

Vertical: Check a box beside one of three fields – Length, Width or Height – to specify the vertical dimension of the carton relative to the ground.

Note: In packaging, height (depth) is normally the distance through the flaps. Length is the greater of the two remaining dimensions.

Database: It allows you to select multiple carton styles to be used in the calculation.

Note: The list contains cartons that are already set up in the database. If the carton you want is not on the list, you can add it to the database using the Carton Database window by click the **Define Database** button.

Note: This field displays only if you select Database Sizing Type.

Define Database: It allows you to define more cartons at the Carton Database by move you to the Database View.

Dimensions: Select either Inside or Outside to specify how the carton dimensions are measured.

Save Settings: Save the current settings of the parameters to be applied at the next design.

Advanced Button: Displays the carton options dialog box, which allows you to enter additional parameters for a carton, such as minimum/maximum size ratio and bulge dimensions.

Primary Pack Advanced Parameters

The Primary Pack Advanced Parameters dialog box allows you to fine-tune the size dimensions of the carton. It limits the scope of the analysis solution by limiting the maximum dimensions and ratios.

	Min	Max
Area Efficiency (%)	80.00	100.00
Length/Height Ratio	0.50	3.00
Length/Width Ratio	1.00	3.00
Height/Width Ratio	0.50	3.00

Bulge

Length: 0.00 mm

Width: 0.00 mm

Height: 0.00 mm

Pattern

1 Block 4 Blocks
 2 Blocks 4 Blocks with Hole
 3 Blocks Multi-surface

OK Cancel

Figure 10 Advanced Parameters of Primary Pack

Length to Height Ratio: Enter Minimum and Maximum of the length to height ratio of the carton.

Length to Width Ratio: Enter Minimum and Maximum of the length to width ratio of the carton.

Height to Width Ratio: Enter Minimum and Maximum of the height to width ratio of the shipcase.

Bulge Length (in/mm): Enter the amount of bulge allowed in the carton's length in inches or millimeters, depending on the Units.

Bulge Width (in/mm): Enter the amount of bulge in inches or millimeters, depending on the Units selected.

Bulge Height (in/mm): Enter the amount of bulge in inches or millimeters, depending on the Units selected.

Secondary Pack Parameters

This window allows you to define parameters of carton for a secondary pack.

The screenshot shows the 'Secondary Pack Parameters' window with the following details:

- Construction:** Name (empty), Style: RSC (Regular Slotted Carton), Materials: SW-1, Weight: 0.000 lbs, Caliper: 0.059 in, Length: 0.000 in, Width: 0.000 in, Height: 0.000 in, Slack Inside: 0.000 x 0.000 x 0.000.
- Graphics:** 3D view of a yellow carton with dimensions 100 (length), 90 (width), and 70 (height).
- Sizing:** Type: New, Fixed, Database. Min: Length 0.000, Width 0.000, Height 0.000; Max: Length 0.000, Width 0.000, Height 0.000; Increment: Length 0.000, Width 0.000, Height 0.000. Vertical: Fixed, New, Database. Quantity: Range (2 ~ 30), Values (0, 0, 0, 0, 0). Database table:

Use	Name	Length(in)	Width(in)	Height(in)	Weight(...)	Volume(...)
<input type="checkbox"/>	My Sec...	11.348	12.323	8.287	0.198	1,158.91
<input type="checkbox"/>	NEW20...	7.559	6.732	6.063	0.076	308.544
<input type="checkbox"/>	NEW20...	3.669	6.431	2.901	0	68.448
- Dimensions:** Inside, Outside. Buttons: Advanced, Save Settings.

Figure 11 Secondary Pack Parameters Window

Name: Type in the first few letters of the carton for secondary pack.

Note: This field displays only if you select Fixed or New Sizing Type.

Style: Select the style of the carton you want to use.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: CubeDesigner uses the selected style, along with the caliper of the material to calculate the difference between inside dimensions and outside dimensions.

Materials: Specify the material used to make the carton. If you select a pre-defined material, CubeDesigner will automatically insert dimensions in the Caliper field.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: The drop-down list contains materials that are already set up in the database. If the material you want is not on the list, you can add it to the database using the Materials Database window.

Weight (lbs/kg): Enter the weight of the carton in pounds or kilograms, depending on the Units selected.

Caliper (in/mm): Enter the caliper of the carton in inches or millimeters, depending on the Units selected.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: The caliper is used to calculate the inside vs. outside dimensions of the carton.

The following three fields – Slack Length, Slack Width and Slack Height – refer to the extra (wasted) space you intend to include in the carton configuration. For example, you might figure in two inches of slack space at the top (height) to more easily insert items into the carton.

- **Slack Length** (in/mm): Enter the extra space intended for the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Slack Width** (in/mm): Enter the extra space intended for the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Slack Height** (in/mm): Enter the extra space intended for the length of the shipcase in inches or millimeters, depending on the Units selected.

Sizing Type: Select either New, Fixed or Database to specify the type of shipcase you want to use in your analysis.

- A **new** will create a new carton based on other information you enter on the screen.
- A **fixed** requires you to enter the dimensions of a fixed carton.
- A **database** analysis goes through the shipcases defined and stored in the database.

For the following three fields – **Length, Width** and **Height** – if you selected New Carton, you'll need to enter **Minimum, Maximum** and **Incremental** dimensions.

- **Length** (in/mm): Enter the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Width** (in/mm): Enter the width of the shipcase in inches or millimeters, depending on the Units selected.
- **Height** (in/mm): Enter the height of the shipcase in inches or millimeters, depending on the Units selected.

For the following **Volume** and **Weight** field, if you selected New or Database Sizing Type, the system will prompt you to enter Minimum and Maximum volume dimensions and weight.

Volume (in³/l): Enter the volume of the carton in inches cubed or liters, depending on the Units selected.

Weight (in³/l): Enter the weight of the carton in pounds or kilograms, depending on the Units selected.

Note: This field allows you to adjust the carton's volume to eliminate any undesired dimensions.

Vertical: Check a box beside one of three fields – Length, Width or Height – to specify the vertical dimension of the carton relative to the ground.

Note: In packaging, height (depth) is normally the distance through the flaps. Length is the greater of the two remaining dimensions.

Quantity: Select either Range or Values to specify whether you want the carton to hold a range of items or a set number of items.

For example, if you want to design the carton to hold anywhere from two to six items, select Range. If you want to design the carton to hold exactly six items, select Values.

Min Count: Enter the minimum number of items you want the shipcase to hold.

Note: This field displays only if you select Range.

Max Count: Enter the maximum number of items you want the shipcase to hold.

Note: This field displays only if you select Range.

CubeDesigner uses the minimum and maximum count values to generate a number of solutions. For example, if you enter two (2) as the minimum count and five (5) as the maximum count, CubeDesigner will generate solutions for two-, three-, four- and five-count sizes.

Values: Enter the set number of items for which you want CubeDesigner to generate solutions.

For example, if you want CubeDesigner to generate solutions for a set 10-count and a set 15-count, enter 10 and 15 in the first two Values fields.

Database: It allows you to select multiple carton styles to be used in the calculation.

Note: The list contains cartons that are already set up in the database. If the carton you want is not on the list, you can add it to the database using the Carton Database window by click the **Define Database** button.

Note: This field displays only if you select Database Sizing Type.

Define Database: It allows you to define more cartons at the Carton Database by move you to the Database View.

Dimensions: Select either Inside or Outside to specify how the carton dimensions are measured.

Save Settings: Save the current settings of the parameters to be applied at the next new design.

Advanced Button: Displays the carton options dialog box, which allows you to enter additional parameters for a carton, such as minimum/maximum size ratio and bulge dimensions.

Secondary Pack Advanced Parameters

The Secondary Pack Advanced Parameters dialog box allows you to fine-tune the size dimensions of the carton. It limits the scope of the analysis solution by limiting the maximum dimensions and ratios.

	Min		Max
Area Efficiency (%)	80.00	~	100.00
Length/Height Ratio	0.50	~	3.00
Length/Width Ratio	1.00	~	3.00
Height/Width Ratio	0.50	~	3.00

Bulge

Length	0.00	mm
Width	0.00	mm
Height	0.00	mm

Pattern

<input checked="" type="checkbox"/> 1 Block	<input type="checkbox"/> 4 Blocks
<input type="checkbox"/> 2 Blocks	<input type="checkbox"/> 4 Blocks with Hole
<input type="checkbox"/> 3 Blocks	<input type="checkbox"/> Multi-surface

OK Cancel

Figure 12 Advanced Parameters of Secondary Pack

Area Efficiency: Enter Minimum and Maximum of the area efficiency of the carton.

Note: This field displays only if you select New or Database Sizing Type.

Length to Height Ratio: Enter Minimum and Maximum of the length to height ratio of the carton.

Length to Width Ratio: Enter Minimum and Maximum of the length to width ratio of the carton.

Height to Width Ratio: Enter Minimum and Maximum of the height to width ratio of the shipcase.

Bulge Length (in/mm): Enter the amount of bulge allowed in the carton's length in inches or millimeters, depending on the Units.

Bulge Width (in/mm): Enter the amount of bulge in inches or millimeters, depending on the Units selected.

Bulge Height (in/mm): Enter the amount of bulge in inches or millimeters, depending on the Units selected.

Pattern: Select one or multiple pattern styles for which you want to generate solutions.

Note: If you selected Fixed or Database as the Sizing Type on the Secondary Pack Parameters tab, the Pattern options will be available. If you selected New as the Sizing Type, the Pattern options will be grayed out and unavailable.

Shippack Parameters

This window allows you to define parameters of shipcase for a shippack.

Use	Name	Length(in)	Width(in)	Height(in)	Weight(...)	Volume(...)
<input type="checkbox"/>	CARTON2	15.433	10.472	9.409	0	1,520.773
<input type="checkbox"/>	Green Golf	15.236	39.567	25.925	0	15,629.000
<input type="checkbox"/>	NEW20...	13.898	20.591	34.272	0	9,807.177
<input type="checkbox"/>	NEW20...	23.483	13.071	25.984	0	7,975.846
<input type="checkbox"/>	NEW20...	15.000	17.166	25.925	0	6,665.631

Figure 13 Secondary Pack Parameters Window

Name: Type in the first few letters of the shipcase for shippack.

Note: This field displays only if you select Fixed or New Sizing Type.

Style: Select the style of the shipcase you want to use.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: CubeDesigner uses the selected style, along with the caliper of the material to calculate the difference between inside dimensions and outside dimensions.

Materials: Specify the material used to make the shipcase. If you select a pre-defined material, CubeDesigner will automatically insert dimensions in the Caliper field.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: The drop-down list contains materials that are already set up in the database. If the material you want is not on the list, you can add it to the database using the Materials Database window.

Weight (lbs/kg): Enter the weight of the shipcase in pounds or kilograms, depending on the Units selected.

Caliper (in/mm): Enter the caliper of the shipcase in inches or millimeters, depending on the Units selected.

Note: This field displays only if you select Fixed or New Sizing Type.

Note: The caliper is used to calculate the inside vs. outside dimensions of the shipcase.

The following three fields – Slack Length, Slack Width and Slack Height – refer to the extra (wasted) space you intend to include in the shipcase configuration. For example, you might figure in two inches of slack space at the top (height) to more easily insert items into the shipcase.

- **Slack Length** (in/mm): Enter the extra space intended for the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Slack Width** (in/mm): Enter the extra space intended for the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Slack Height** (in/mm): Enter the extra space intended for the length of the shipcase in inches or millimeters, depending on the Units selected.

Sizing Type: Select either New, Fixed or Database to specify the type of shipcase you want to use in your analysis.

- A **new** will create a new shipcase based on other information you enter on the screen.
- A **fixed** requires you to enter the dimensions of a fixed shipcase.
- A **database** analysis goes through the shipcases defined and stored in the database.

For the following three fields – **Length**, **Width** and **Height** – if you selected New shipcase, you'll need to enter **Minimum**, **Maximum** and **Incremental** dimensions.

- **Length** (in/mm): Enter the length of the shipcase in inches or millimeters, depending on the Units selected.
- **Width** (in/mm): Enter the width of the shipcase in inches or millimeters, depending on the Units selected.
- **Height** (in/mm): Enter the height of the shipcase in inches or millimeters, depending on the Units selected.

For the following **Volume** and **Weight** field, if you selected New or Database Sizing Type, the system will prompt you to enter Minimum and Maximum volume dimensions and weight.

Volume (in³/l): Enter the volume of the shipcase in inches cubed or liters, depending on the Units selected.

Weight (in³/l): Enter the weight of the shipcase in pounds or kilograms, depending on the Units selected.

Note: This field allows you to adjust the shipcase's volume to eliminate any undesired dimensions.

Vertical: Check a box beside one of three fields – Length, Width or Height – to specify the vertical dimension of the shipcase relative to the ground.

Note: In packaging, height (depth) is normally the distance through the flaps. Length is the greater of the two remaining dimensions.

Quantity: Select either Range or Values to specify whether you want the shipcase to hold a range of items or a set number of items.

For example, if you want to design the shipcase to hold anywhere from two to six items, select Range. If you want to design the shipcase to hold exactly six items, select Values.

Min Count: Enter the minimum number of items you want the shipcase to hold.

Note: This field displays only if you select Range.

Max Count: Enter the maximum number of items you want the shipcase to hold.

Note: This field displays only if you select Range.

CubeDesigner uses the minimum and maximum count values to generate a number of solutions. For example, if you enter two (2) as the minimum count and five (5) as the maximum count, CubeDesigner will generate solutions for two-, three-, four- and five-count sizes.

Values: Enter the set number of items for which you want CubeDesigner to generate solutions.

For example, if you want CubeDesigner to generate solutions for a set 10-count and a set 15-count, enter 10 and 15 in the first two Values fields.

Database: It allows you to select multiple shipcase styles to be used in the calculation.

Note: The list contains shipcases that are already set up in the database. If the shipcase you want is not on the list, you can add it to the database using the Carton Database window by click the **Define Database** button.

Note: This field displays only if you select Database Sizing Type.

Define Database: It allows you to define more shipcases at the Carton Database by move you to the Database View.

Dimensions: Select either Inside or Outside to specify how the shipcase dimensions are measured.

Save Settings: Save the current settings of the parameters to be applied at the next new design.

Advanced Button: Displays the shipcase options dialog box, which allows you to enter additional parameters for a shipcase, such as minimum/maximum size ratio and bulge dimensions.

Shippack Advanced Parameters

The Shippack Advanced Parameters dialog box allows you to fine-tune the size dimensions of the shipcase. It limits the scope of the analysis solution by limiting the maximum dimensions and ratios.

	Min		Max
Area Efficiency (%)	80.00	~	100.00
Length/Height Ratio	0.50	~	3.00
Length/Width Ratio	1.00	~	3.00
Height/Width Ratio	0.50	~	3.00

Bulge

Length: 0.00 mm
Width: 0.00 mm
Height: 0.00 mm

Pattern

1 Block 4 Blocks
 2 Blocks 4 Blocks with Hole
 3 Blocks Multi-surface

OK Cancel

Figure 14 Advanced Parameters of Shippack

Area Efficiency: Enter Minimum and Maximum of the area efficiency of the shipcase.

Note: This field displays only if you select New or Database Sizing Type.

Length to Height Ratio: Enter Minimum and Maximum of the length to height ratio of the shipcase.

Length to Width Ratio: Enter Minimum and Maximum of the length to width ratio of the shipcase.

Height to Width Ratio: Enter Minimum and Maximum of the height to width ratio of the shipcase.

Bulge Length (in/mm): Enter the amount of bulge allowed in the shipcase's length in inches or millimeters, depending on the Units.

Bulge Width (in/mm): Enter the amount of bulge in inches or millimeters, depending on the Units selected.

Bulge Height (in/mm): Enter the amount of bulge in inches or millimeters, depending on the Units selected.

Pattern: Select one or multiple pattern styles for which you want to generate solutions.

Note: If you selected Fixed or Database as the Sizing Type on the Secondary Pack Parameters tab, the Pattern options will be available. If you selected New as the Sizing Type, the Pattern options will be grayed out and unavailable.

Unitload Parameters

This window allows you to define parameters for a pallet or slipsheet.

Choose pallet type from the list. [Define Database](#)

Use	Name	Length(in)	Width(in)	Thickness(in)	Weight(lbs)	Volume(ft ³)
<input checked="" type="checkbox"/>	48 x 48	48	48	5	62	78.747
<input type="checkbox"/>	CHEP	45.866	45.866	5.906	94.8	103.049
<input type="checkbox"/>	Clamp Load	48	40	0	0	66.667
<input type="checkbox"/>	Euro	47.244	31.496	5.906	55.116	67.804
<input type="checkbox"/>	GMA	48	40	5	64.993	65.617
<input type="checkbox"/>	SlipSheet	48	40	0.01	0	66.667

Load

Max Height (Pallet Included) in

Max Weight (Pallet Included) lbs

Max Number of Layers

Overhang Length Width in

Underhang Length Width in

Patterns

1 Block
 2 Blocks
 3 Blocks
 4 Blocks
 Best Fit

Packaging

Straps Vertical Horizontal Both

Number of Straps

Size in

Shrink Wraps

Top Pad Size in

Corner Posts Size in

Figure 15 Unitload Parameters Window

Pallets: Select pallets or slipsheets styles.

Note: The drop-down list contains pallet types that are already set up in the database. If the pallet type you want is not on the list, you can add it to the database using the Pallet Database window by click the **Define Database** button

Define Database: It allows you to define more pallet types at the Pallet Database by move you to the Database View.

Maximum Height (incl. Pallet) (in/mm): Enter the maximum height of the unitload, including the pallet, in inches or millimeters, depending on the Units selected.

Maximum Weight (incl. Pallet) (lbs/kg): Enter the maximum weight of the unitload, including the pallet, in pounds or kilograms, depending on the Units selected.

Maximum Number of Layers: Enter the maximum number of layers for the unitload.

Overhang Length (in/mm): Enter the maximum overhang for the length of the pallet or slipsheet in inches or millimeters, depending on the Units selected.

Overhang Width (in/mm): Enter the maximum overhang for the width of the pallet or slipsheet in inches or millimeters, depending on the Units selected.

Underhang Length (in/mm): Enter the maximum underhang for the length of the pallet or slipsheet in inches or millimeters, depending on the Units selected.

Underhang Width (in/mm): Enter the maximum underhang for the width of the pallet or slipsheet in inches or millimeters, depending on the Units selected.

Patterns: Select one pattern style for which you want CubeDesigner to generate solutions.

Straps: Check the box to activate the Straps fields.

Strap Size: Enter the width of the straps in inches or millimeters, depending on the Units selected.

Number of Straps: Enter the number of straps to be used on the unitload.

Vertical: Select this option to use vertical straps on the unitload.

Horizontal: Select this option to use horizontal straps on the unitload.

Both: Select this option to use both vertical and horizontal straps on the unitload.

Shrink Wraps: Check the box to use shrink wraps on the unitload.

Top Pads: Check the box to activate the Top Pads fields.

Top Pads Size: Enter the length and width of the top pad in inches or millimeters, depending on the Units selected.

Corner Posts: Check the box to use corner post on the unitload.

Corner Posts Size: Enter the length of the corner post in inches or millimeters, depending on the Units selected.

Save Settings: Save the current settings of the parameters to be applied at the next new design.

Advanced Button: Displays the unitload options dialog box, which allows you to enter additional parameters for a pallet, such as minimum/maximum area efficiency.

Unitload Advanced Parameters

The Unitload Advanced Parameters dialog box allows you to fine-tune the size dimensions of the pallets.

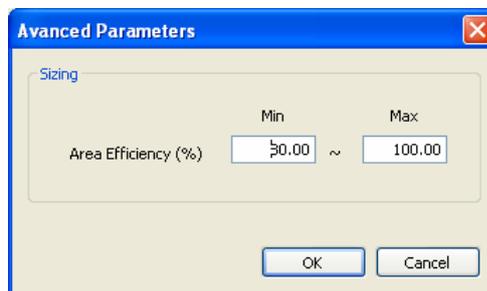


Figure 16 Advanced Parameters of Unitload

Area Efficiency: Enter Minimum and Maximum of the area efficiency of the pallets.

Analyze Solutions

Introduction

When CubeDesigner generates solutions for an analysis, it displays the Solutions window, as pictured below. You'll use this window to study the different solutions and select the one that best meets your packing needs.

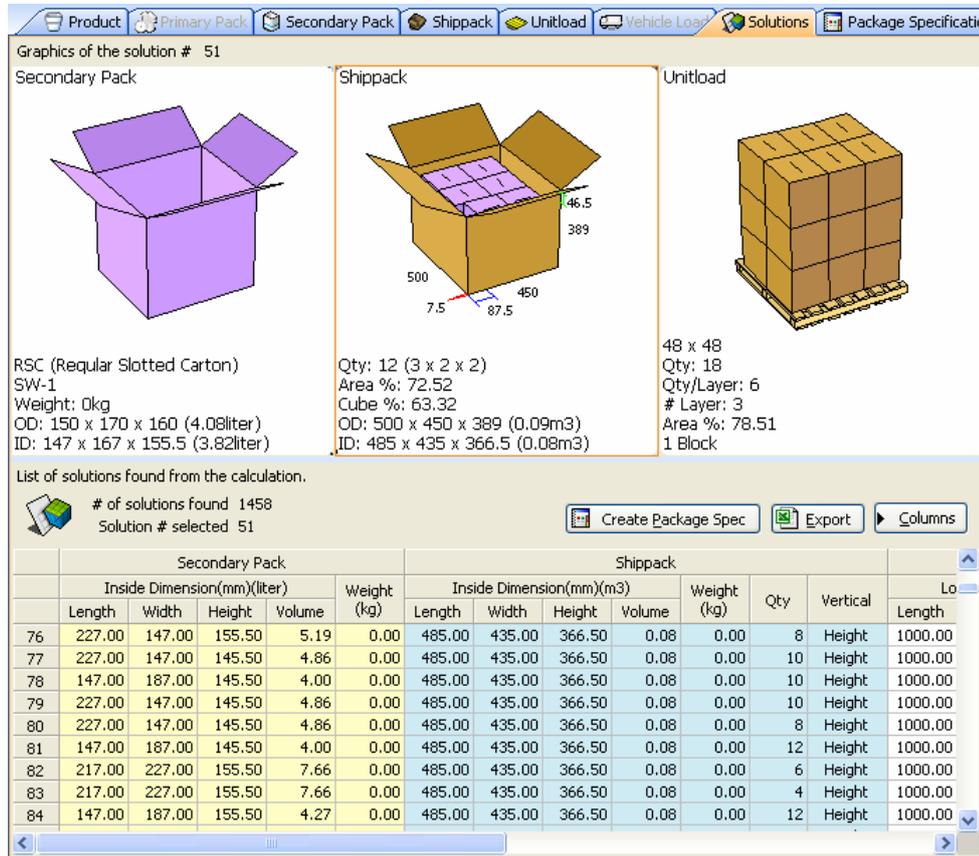


Figure 17 Solutions Window

The Solutions window is normally divided into two panes, which work in conjunction with one another. Let's talk about these two panes one at a time.

Graphic View Pane: This pane, in the top portion of the screen, displays a graphic of what the selected solution looks like – i.e., how the shipcases have been loaded onto the pallet.

List Pane: This pane, at the bottom of the screen, displays a list of the solutions generated for the analysis, along with a variety of basic information for each solution.

Graphic View Pane

The Graphic View pane displays a 3-D graphic of what the selected solution looks like; this pane is linked to the List pane. For example, if you select Solution 1 in the List pane, the View pane displays a graphic that corresponds to Solution 1. If you select Solution 5 in the List pane, the View pane displays a graphic for Solution 5, and so on.

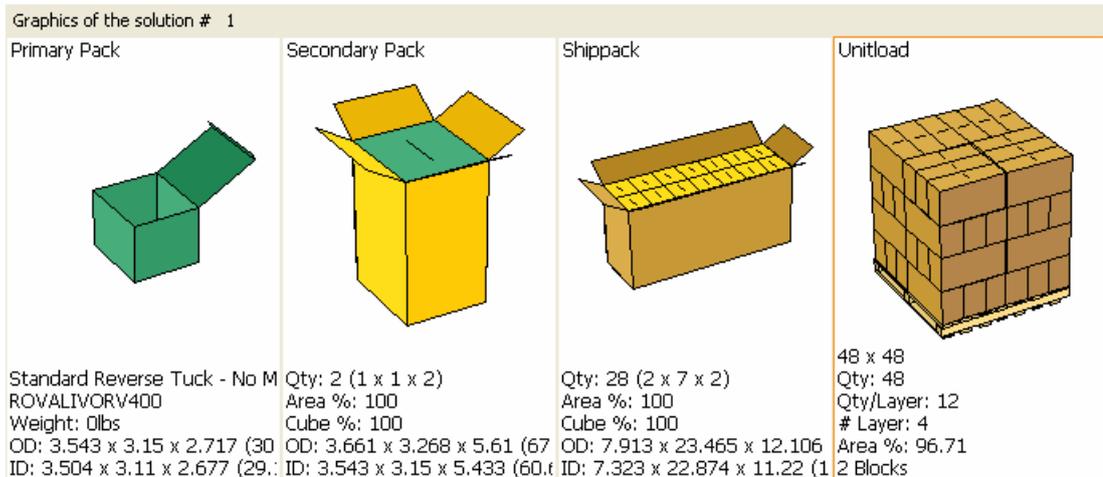


Figure 18 Graphics View Pane of the Solutions Window

List Pane

The List pane displays a list of all solutions generated for the analysis. In the figure below, the List pane includes 351 solutions for the analysis (only nine are visible). A scroll bar allows you to move up and down the list. For each solution, this pane displays several items of basic information for each design stage, which appears in columns across the pane.

Important Note: In order to display all columns of information in the List pane, use Columns button.

The List pane displays the solutions #, and information for primary pack, secondary pack, shippack and unitload. The information for the primary pack, secondary pack and shippack include the following items:

Inside Dimension: The inside dimension and the volume based on inside dimension of the carton.

Outside Dimension: The outside dimension and the volume based on outside dimension of the carton.

Weight: The gross weight of the carton.

Qty: The number of items in the carton.

List of solutions found from the calculation.

of solutions found 351
Solution # selected 1

Create Package Profile Export Columns

	Secondary Pack										Unitload		
	Inside Dimension(in)(in3)				Outside Dimension(in)(in3)				Weight (lbs)	Qty	Inside Dimension(in)(ft3)		
	Length	Width	Height	Volume	Length	Width	Height	Volume			Length	Width	Height
1	3.543	3.150	5.433	60.633	3.661	3.268	5.610	67.124	0.000	2	7.323	22.874	11.220
2	3.543	6.299	8.150	181.900	3.661	6.417	8.327	195.650	0.000	6	7.323	19.252	16.654
3	3.543	6.299	8.150	181.900	3.661	6.417	8.327	195.650	0.000	6	7.323	19.252	8.327
4	3.543	6.299	2.717	60.633	3.661	6.417	2.894	67.992	0.000	2	7.323	19.252	5.787
5	3.543	6.299	2.717	60.633	3.661	6.417	2.894	67.992	0.000	2	7.323	19.252	14.469
6	3.543	6.299	2.717	60.633	3.661	6.417	2.894	67.992	0.000	2	7.323	19.252	8.681
7	3.543	6.299	5.433	121.266	3.661	6.417	5.610	131.821	0.000	4	7.323	19.252	11.220
8	3.543	6.299	5.433	121.266	3.661	6.417	5.610	131.821	0.000	4	7.323	19.252	16.831
9	3.543	6.299	2.717	60.633	3.661	6.417	2.894	67.992	0.000	2	7.323	19.252	11.575

Figure 19 List Pane of the Solutions Window

The information for the unitload includes the following items:

Length: The length of the unitload.

Width: The width of the unitload.

Height: The height of the unitload, excluding the pallet.

Weight: The weight of the unitload, including the pallet.

Qty: The number of shipcases configured in the unitload.

Qty/Layer: The number of shipcases configured in each layer of the unitload.

Layers: The number of layers of shipcases configured in the unitload.

Pieces: The number of cartons configured in the unitload.

Area %: The percentage of the pallet area that is used in the configuration. CubeDesigner calculates this value based on how much pallet area is covered by shipcases.

Cubic %: The percentage of cubic area that is used in the configuration. CubeDesigner calculates this value based on how much space is being used versus the space you're trying to fill.

The List pane provides also several buttons to allow you to create a package profile from the solutions, export the information of the solutions, and control the columns of the list.

Create Package Spec Button: Creates the package specification of the design from the selected solution in the list. The created package specification will be displayed in the Package Specification tab automatically.

Export Button: Allows you export all the solutions to a MS-Excel format and save it to a file on your hard disk.

Columns Button: Allows you to show and hide specific columns in the solution list.

Package Specification

Introduction

This chapter discusses the package specification, which allows you to create a profile for a complete package analysis, sometimes called a cube specification.

Create Package Specification

To create a package specification, you just click the button [Create Package Spec] on the [Solutions] window of the Design View. When CubeDesigner creates a package specification, it displays the Package Specification window, as pictured below. You'll use this window to approve, print and publish the package specification.

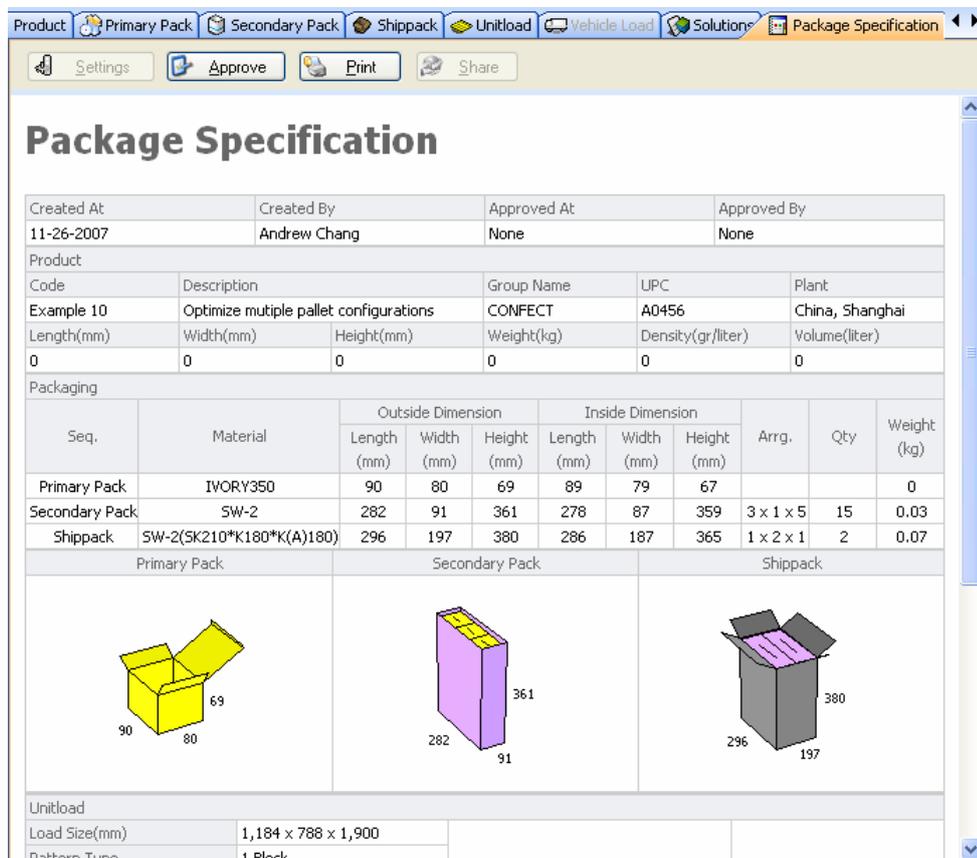


Figure 20 Package Specification Window

The Package Specification window is normally divided into two panes.

Command Pane: This pane, in the top portion of the screen, shows several command buttons allow you to handle the package specification.

Preview Pane: This pane, at the bottom of the screen, displays the package specification in a report of HTML type.

Define Databases

Introduction

As you set up the CubeDesigner system and prepare to use it in your daily operations, one of the most critical functions is setting up the various databases. CubeDesigner uses a local database “C:\Program Files\Common Files\VMS Shared\Database\VMSDB2005.mdb” that is in the format of Microsoft Access 97.

Before we begin this chapter, it is important to remember one critical fact:

A computer does not think like a human. Therefore, it's imperative that all inputs and measurements be precise. For example, think of a space as tiny as 1/16 of an inch. While you and I may think nothing of such a small number, and certainly would not think it could affect the way a truck is loaded, CubeDesigner thinks otherwise.

For a computer, everything is “black and white.” An object will either fit or it won't. Let's take a truck that is 99” wide. Suppose you want to place three refrigerators side by side across the nose of the truck; each refrigerator is 331/16” wide. A quick calculation shows that $3 \times 331/16$ equals 993/16, which is **greater than** 99”.

Therefore, CubeDesigner will not place these refrigerators side by side. If you ever run across a situation like this, double-check the dimensions of both your truck and your SKU. Are they **exact** dimensions? Also, remember that humans may tolerate a “fudge factor.” Perhaps the person loading the truck will **make** these refrigerators fit. CubeDesigner, however, will not.

When you define databases in the CubeDesigner system, you'll always start with the Database view. Use one of two options in order to open this view.

- Open the [View] menu and select [Database]
- From the Task List, click [Database] button

This topic walks you through how to define six types of databases.

- Carton
- Pallet
- Truck and Trailer
- Sea Van

Carton Databases

A carton is defined as shipcase, tote or corrugated box that you will fill with SKUs.

The Carton Database view allows you to define a new carton or modify an existing carton. In this view, you enter carton parameters and save it to the carton database. Start from the Task Bar and click the Database menu and select Carton.

System Response: The Carton Database view appears.

The Carton Database view is comprised of the following components:

- New Button: Allows you to define a new carton.
- Delete Button: Allows you to delete cartons from the database. This button will be activated on when you select more than one carton at the Carton List. In order to make a selection, click a row header of the leftmost column at the list and drag the mouse to the end of range. The list will highlight the range and the button activates.
- Carton List: Displays a list of all cartons existing in the database. It allows you to modify the parameters of carton and saves the changes to the database automatically.

CARTON LIST

When you click on a carton data, a black bar highlights it. The gray vertical scroll bar to the right of the box scrolls the database list and allows you to view more cartons. The scroll bar will take you to the bottom of the list or to the top of the list. When you click on a cell, a black color highlights it and be ready for you to enter a new value. If you enter a return key when you complete to type a value, the right cell will gain the highlight again.

This list contains useful information about the carton. All of this information is designed to help you make quick and easy decisions about the container you're loading.

- **Define Button:** This column allows you to define more parameters of carton.
- **Name:** This column contains the carton name.
- **Length, Width and Height:** This columns display the dimensions of each carton. The dimensions will appear either in English or Metric units, depending on which units are selected in the Toolbar.
- **Weight:** This column displays the defined weight of each carton. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Max Weight:** This column displays the max weight of each carton. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Color:** This column displays the color of each carton. Click on this column to display the Color Selection dialog box. CubeDesigner uses the standard (48-color) Windows Color Selection dialog box, which allows you to select a custom color for each carton.

MODIFY AN EXISTING CARTON

To modify an existing carton, follow these instructions;

1. Select a row of the carton you want to modify
2. Modify information of each cell as you necessary
3. Or click the Define button

System Response: The Carton Properties window appears and allows you to define more parameters of the carton

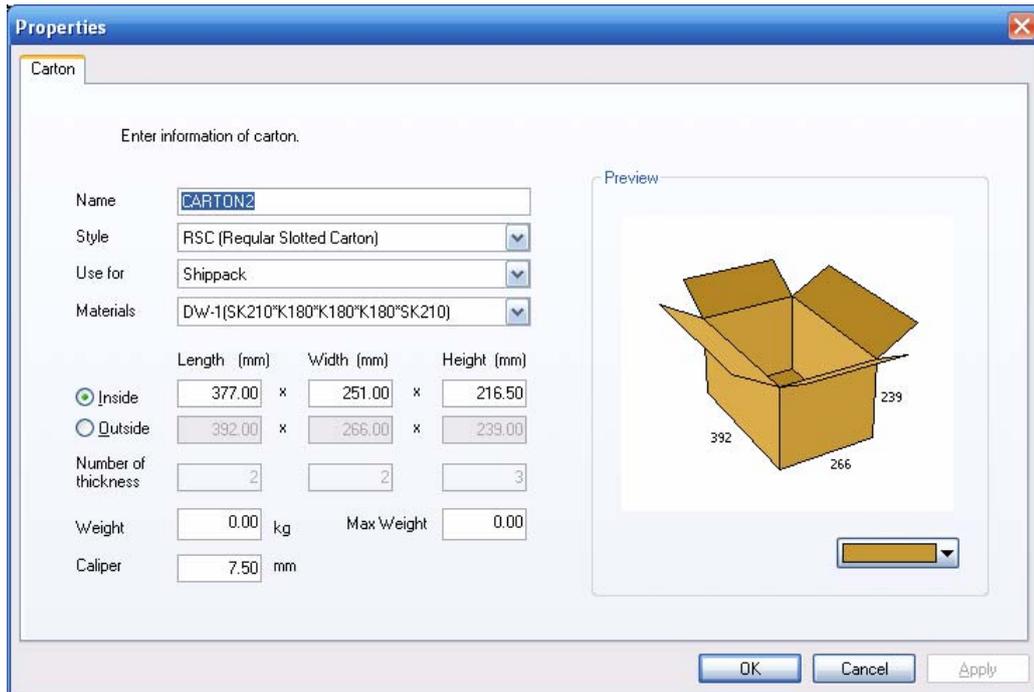


Figure 21 Carton Define Window

4. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the carton database automatically

DEFINE A NEW CARTON

To define a new carton, follow these instructions;

1. Click the New button
System Response: A new row is appended at the bottom of the list and the focus locates on the Name cell
2. Modify information of each cell as you necessary
3. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the carton database automatically

DELETE AN CARTON FROM THE DATABASE

To delete an existing carton, follow these instructions;

1. Select rows of the carton you want to delete
2. Click the row-number heads to highlight the rows
System Response: The Delete button is activated
3. Click the Delete button
System Response: The selected rows are deleted from the database and removed from the list

Pallet Databases

The Pallet Database view allows you to define a new pallet or modify an existing pallet. In this view, you enter pallet parameters and save it to the pallet database. Start from the Task Bar and click the Database menu and select Pallet.

System Response: The Pallet Database view appears.

The Pallet Database view is comprised of the following components:

- **New Button:** Allows you to define a new pallet.
- **Delete Button:** Allows you to delete pallets from the database. This button will be activated on when you select more than one pallet at the Pallet List. In order to make a selection, click a row header of the leftmost column at the list and drag the mouse to the end of range. The list will highlight the range and the button activates.
- **Pallet List:** Displays a list of all pallets existing in the database. It allows you to modify the parameters of pallet and saves the changes to the database automatically.

PALLET LIST

When you click on a pallet data, a black bar highlights it. The gray vertical scroll bar to the right of the box scrolls the database list and allows you to view more pallets. The scroll bar will take you to the bottom of the list or to the top of the list. When you click on a cell, a black color highlights it and be ready for you to enter a new value. If you enter a return key when you complete to type a value, the right cell will gain the highlight again.

This list contains useful information about the pallet.

- **Define Button:** This column allows you to define more parameters of pallet.
- **Name:** This column contains the pallet name.
- **Alias1:** This column contains the alias of each pallet.
- **Length, Width and Thickness:** This columns display the dimensions of each pallet. The dimensions will appear either in English or Metric units, depending on which units are selected in the Toolbar.
- **Max Height:** This column displays the max height including the thickness of each pallet. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Weight:** This column displays the defined weight of each pallet. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Max Weight:** This column displays the max weight of each pallet. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Color:** This column displays the color of each pallet. Click on this column to display the Color Selection dialog box. CubeDesigner uses the standard (48-color) Windows Color Selection dialog box, which allows you to select a custom color for each pallet.

MODIFY AN EXISTING PALLET

To modify an existing pallet, follow these instructions;

1. Select a row of the pallet you want to modify
2. Modify information of each cell as you necessary
3. Or click the Define button

System Response: The Pallet Properties window appears and allows you to define more parameters of the pallet

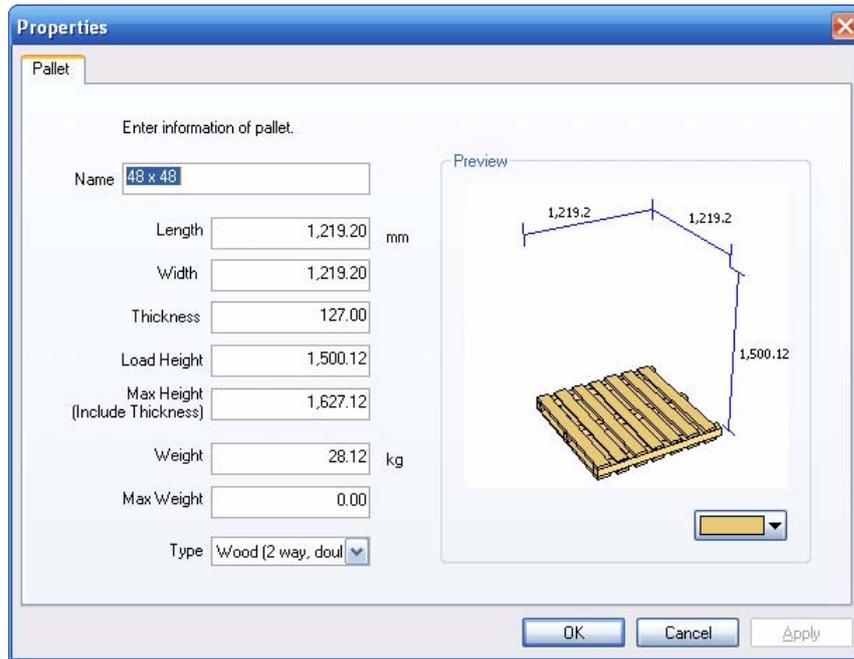


Figure 22 Pallet Define Window

4. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the pallet database automatically

DEFINE A NEW PALLET

To define a new pallet, follow these instructions;

1. Click the New button
System Response: A new row is appended at the bottom of the list and the focus locates on the Name cell
2. Modify information of each cell as you necessary
3. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the pallet database automatically

DELETE AN PALLET FROM THE DATABASE

To delete an existing pallet, follow these instructions;

1. Select rows of the pallet you want to delete
2. Click the row-number heads to highlight the rows
System Response: The Delete button is activated
3. Click the Delete button
System Response: The selected rows are deleted from the database and removed from the list

Truck and Trailer Databases

The Truck and Trailer Database view allows you to define a new truck/trailer or modify an existing one. In this view, you enter truck/trailer parameters and save it to the truck/trailer database. Start from the Task Bar and click the Database menu and select Truck and Trailer.

System Response: The Truck and Trailer Database view appears.

The Truck and Trailer Database view is comprised of the following components:

- **New Button:** Allows you to define a new truck/trailer.
- **Delete Button:** Allows you to delete trucks/trailers from the database. This button will be activated on when you select more than one truck/trailer at the Truck and Trailer List. In order to make a selection, click a row header of the leftmost column at the list and drag the mouse to the end of range. The list will highlight the range and the button activates.
- **Truck and Trailer List:** Displays a list of all trucks and trailers existing in the database. It allows you to modify the parameters of truck/trailer and saves the changes to the database automatically.

TRUCK AND TRAILER LIST

When you click on a truck/trailer data, a black bar highlights it. The gray vertical scroll bar to the right of the box scrolls the database list and allows you to view more trucks. The scroll bar will take you to the bottom of the list or to the top of the list. When you click on a cell, a black color highlights it and be ready for you to enter a new value. If you enter a return key when you complete to type a value, the right cell will gain the highlight again.

This list contains useful information about the truck.

- **Define Button:** This column allows you to define more parameters of truck/trailer.
- **Name:** This column contains the truck/trailer name.
- **Alias1:** This column contains the alias of each truck/trailer.
- **Length, Width and Height:** This columns display the dimensions of each truck/trailer. The dimensions will appear either in English or Metric units, depending on which units are selected in the Toolbar.
- **Weight:** This column displays the defined weight of each truck/trailer. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Max Weight:** This column displays the max weight of each truck/trailer. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Color:** This column displays the color of each truck/trailer. Click on this column to display the Color Selection dialog box. CubeDesigner uses the standard (48-color) Windows Color Selection dialog box, which allows you to select a custom color for each truck.

MODIFY AN EXISTING TRUCK/TRAILER

To modify an existing truck/trailer, follow these instructions;

1. Select a row of the truck/trailer you want to modify
2. Modify information of each cell as you necessary
3. Or click the Define button

System Response: The Truck and Trailer Properties window appears and allows you to define more parameters of the truck/trailer

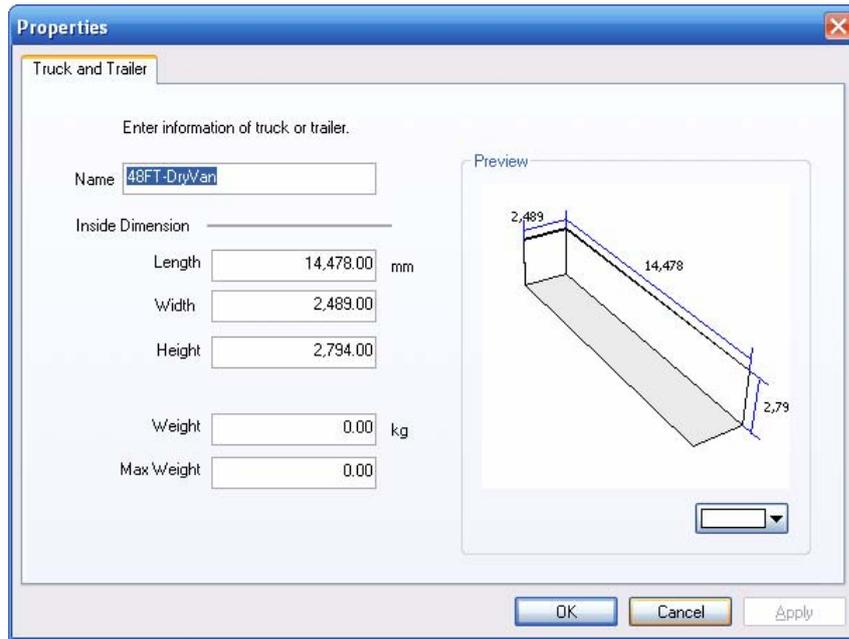


Figure 23 Truck Define Window

4. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the truck and trailer database automatically

DEFINE A NEW TRUCK/TRAILER

To define a new truck/trailer, follow these instructions;

1. Click the New button
System Response: A new row is appended at the bottom of the list and the focus locates on the Name cell
2. Modify information of each cell as you necessary
3. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the truck and trailer database automatically

DELETE AN TRUCK/TRAILER FROM THE DATABASE

To delete an existing truck/trailer, follow these instructions;

1. Select rows of the truck/trailer you want to delete
2. Click the row-number heads to highlight the rows
System Response: The Delete button is activated
3. Click the Delete button
System Response: The selected rows are deleted from the database and removed from the list

Sea Van Databases

The Sea Van Database view allows you to define a new sea van or modify an existing sea van. In this view, you enter sea van parameters and save it to the sea van database. Start from the Task Bar and click the Database menu and select Sea Van.

System Response: The Sea Van Database view appears.

The Sea Van Database view is comprised of the following components:

- **New Button:** Allows you to define a new sea van.
- **Delete Button:** Allows you to delete sea vans from the database. This button will be activated on when you select more than one sea van at the Sea Van List. In order to make a selection, click a row header of the leftmost column at the list and drag the mouse to the end of range. The list will highlight the range and the button activates.
- **Sea Van List:** Displays a list of all sea vans existing in the database. It allows you to modify the parameters of sea van and saves the changes to the database automatically.

SEA VAN LIST

When you click on a sea van data, a black bar highlights it. The gray vertical scroll bar to the right of the box scrolls the database list and allows you to view more sea vans. The scroll bar will take you to the bottom of the list or to the top of the list. When you click on a cell, a black color highlights it and be ready for you to enter a new value. If you enter a return key when you complete to type a value, the right cell will gain the highlight again.

This list contains useful information about the sea van.

- **Define Button:** This column allows you to define more parameters of sea van.
- **Name:** This column contains the sea van name.
- **Alias1:** This column contains the alias of each sea van.
- **Length, Width and Height:** This columns display the dimensions of each sea van. The dimensions will appear either in English or Metric units, depending on which units are selected in the Toolbar.
- **Weight:** This column displays the defined weight of each sea van. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Max Weight:** This column displays the max weight of each sea van. As with the dimensions columns, this column will either appear in English or Metric units, depending on which units are selected in the Toolbar.
- **Color:** This column displays the color of each sea van. Click on this column to display the Color Selection dialog box. CubeDesigner uses the standard (48-color) Windows Color Selection dialog box, which allows you to select a custom color for each sea van.

MODIFY AN EXISTING SEA VAN

To modify an existing sea van, follow these instructions;

1. Select a row of the sea van you want to modify
2. Modify information of each cell as you necessary
3. Or click the Define button

System Response: The Sea Van Properties window appears and allows you to define more parameters of the sea van

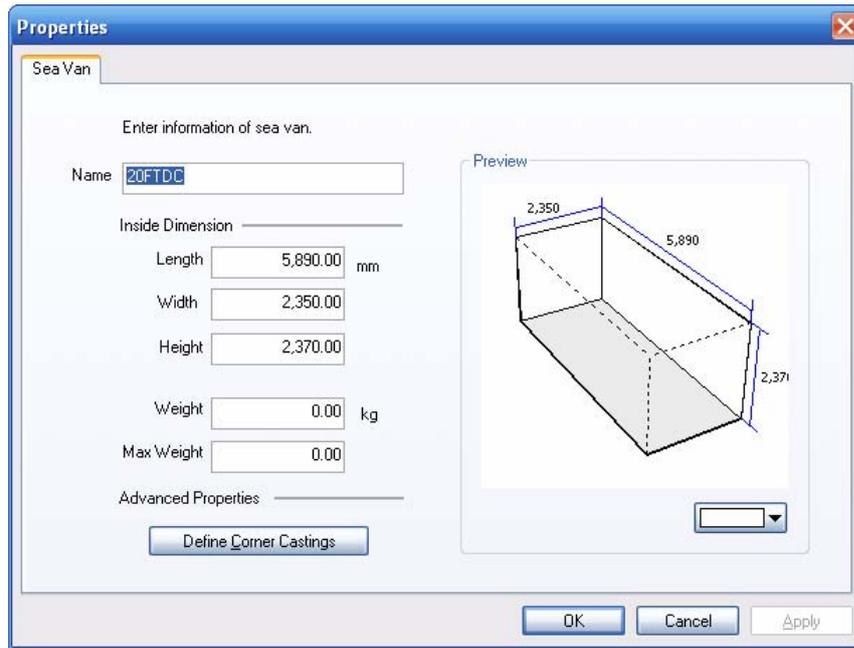


Figure 24 Sea Van Define Window

4. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the sea van database automatically

DEFINE A NEW SEA VAN

To define a new sea van, follow these instructions;

1. Click the New button
System Response: A new row is appended at the bottom of the list and the focus locates on the Name cell
2. Modify information of each cell as you necessary
3. Whenever you leave each cell after modifying it, CubeDesigner saves the changes to the sea van database automatically

DELETE AN SEA VAN FROM THE DATABASE

To delete an existing sea van, follow these instructions;

1. Select rows of the sea van you want to delete
2. Click the row-number heads to highlight the rows
System Response: The Delete button is activated
3. Click the Delete button
System Response: The selected rows are deleted from the database and removed from the list