



**Best Return on Investment**



**Reliable Company**



**Innovative Systems**

## 1-2-3 PV Planner Quick Guide

### General

#### Installing the software

When you have received the software in your Inbox, perform the following steps for a correct use of the software.

- Save the file (1-2-3 PV Planner 2013-Q\_-V00\_) by preference in a local folder or on your desktop.
- Open the file and login with your personal username and password which you have received by e-mail.
- In case you have a panel database (importing from other users is possible) you can import this database when the program asks for it at start-up. (Please note that these files always have a \*.valk extension.)
- If you don't import a panel database, you have to add panel(s) in order to make use of the 1-2-3 PV Planner. To add panel(s) to go step 2: Design Center and press 'Enter' to get into the 'Panel Options' menu or press F1 on your keyboard.
- The 1-2-3 PV Planner is now ready for use.

#### Menu control

Regardless in which step (1-3) you are, you can find 2 separate menu's (see figure below)

- Menu 1: In this menu you can find multiple options such as our terms and conditions and the possibility to perform a general reset. Regardless of the choice, the action will be initiated directly.
- Menu 2: Depending on the step you are in (1-3), this menu presents you various options. These options are required for day to day use of the 1-2-3 PV Planner



Menu Options

1

Customer name	Van der Valk Solar Systems
User name	Tom Koot
Supplier name	Van der Valk Solar Systems
Suppliers mail	tkoot@valksolarsystems.nl

Your Language (F1)

2

Enter



**System choice**

Next to changing your language settings you can make a choice of systems in step 1 (General data). On this moment you can choose between the Van der Valk pitched roof, or flat roof system. If you want to change the system you have chosen after filling in details in further steps a general reset is required which you can find in menu 1 (see page 1).



Menu Options

Your Language (F1)

Customer name	Van der Valk Solar Systems	Version	2013-Q1-V001-7
User name	Tom Koot	Date	27-03-2013
Supplier name	Van der Valk Solar Systems		
Suppliers mail	tkoot@valksolarsystems.nl		



General data

Discount	0.0%	Type	Flat Roof System
Delivery Date	27-03-2013	Country of destination	Flat Roof System
Project name	123PVPlanner		Flat Roof System

**(Un)mark panels**

First a panel grid of a 'X' amount of panels has to be created, regardless of the final panel lay-out. The size of the initial panel grid can be submitted at 'Number of panels per row' and 'Number of rows'.

Unmarking panels

- Select 'Unmark Panels' in the menu (2)
- Select the panel(s) you like to remove from the project
- Press 'Enter' or use the function key F6

Marking panels

- Select 'Mark Panels' in the menu (2)
- Select the panel(s) which you like to add to the project
- Press 'Enter' or use the function key F6



Menu Options

Unmark Panels (F6)

Number of panels per row	6	Panel type	
Number of rows	6	Efficiency	
Panel Orientation	Landscape	Advised c	
System Type	Insert	Country o	
Preset inclination	10°	Number o	
Foundation Type	Mass block	Total Nett	



General data



Design center



Foundation calculator

9.884 mm -- North --

	X1	X2	X3	X4	X5	X6
Y1						
Y2						
Y3						
Y4						
Y5						
Y6						

9.500 mm

Unmark panels



Menu Options

Mark Panels (F5)

Number of panels per row	6	Panel type	
Number of rows	6	Efficiency	
Panel Orientation	Landscape	Advised c	
System Type	Insert	Country c	
Preset inclination	10°	Number c	
Foundation Type	Mass block	Total Nett	



General data



Design center



Foundation calculator

9.884 mm -- North --

	X1	X2	X3	X4	X5	X6
Y1						
Y2						
Y3						
Y4						
Y5						
Y6						

9.500 mm

Mark panels



**Item list**

The Item List can be entered if steps 1 to 3 are completed. In steps 2 and 3 the Item List can be entered true the menu or by pressing function key F7.

The yellow cells offer you the opportunity to add extra items to the project. For your convenience this Item List can be exported to an editable Microsoft Excel file.

**Installation manual**

The installation manual shows you exact which materials are required at what location in the designed system. You can enter the Installation Manual after completion of all steps in step 3 'Foundation calculator' by selecting 'Show Installation Manual' in the menu (2) and press 'Enter' or by using function key F4.

**Saving and loading projects**

You can save and load your projects in menu 1 (see page 1). So you no longer need to print all projects or re-enter them when something in the project changed.

Save project

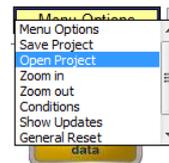
When all steps (1-3) are completed you have the possibility to save the project. In order to save click on 'Save project' in menu 1. In the explorer window that opens you can select the preferred location. For your convenience the filename automatically holds all the important project information. This makes it easier to find you project back after some time.

Load project

Previously saved project projects can easily been load by pressing 'Load project' in menu 1. This action automatically opens the last location to ease the search. A double click on the required project is sufficient to load and (re) calculate the project into the 1-2-3 PV Planner.



Customer name
User name
Supplier name
Suppliers mail



Your Language (F1)
Discount
Delivery Date
Project name

*Watch out! When you load a project all current project data will be lost. Therefore first save your current work before loading a new project.*

**Function keys summary**

Step 1: General data	Step 2: Design Centre	Step 3: Foundation calculator
F1 - Your Language	F1 - Panel Options	F1 - Wind Zones
F2 - Import Panels	F2 - Material Selection	F2 - Terrain Categories
F3 - Create Panel Database	F3 - Show Side View	F3 - Show Ballast Overview
F4 - Synchronize with server	F4 - Reset Panel Field	F4 - Show Installation Manual
	F5 - Mark Panels	F5 - Reset Foundation
	F6 - Unmark Panels	F7 - Show Item List
	F7 - Show Item List	
	F8 - Reset Design Centre	

## Flat roof system

### Panel sized & Optimized

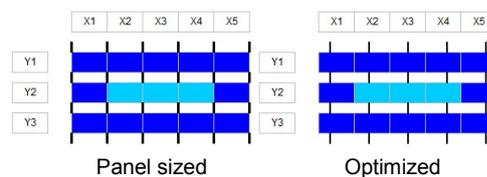
As the figure below displays, a system can be performed as 'Panel sized' or as 'Optimized'.

#### Panel sized

When a system is performed as 'Panel sized' a roof carrier profile with A-frame is mounted on every section between the panels. This could be necessary to be able to build even the most complex systems and still connect the rows together.

#### Optimized

When there are no panels that are unmarked, the system can be optimized. This means the roof carrier profiles with A-frames can be mounted further apart. This could mean there is less material required. This has the additional advantages of a shorter installation time and lower system costs.



In the figure above one entire row can be saved due the optimisation. (centre to centre distance between the roof carrier profiles can be optimized)

### Exposed & Shielded

These terms are used to distinguish the difference between panels that are directly or indirectly exposed to the wind. The dark blue panels (only the edges of the system) are always exposed. Under the lee of these exposed panels are the light blue shielded panels which have to be ballasted less.