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SolarEdge Site Mapper Software Guide

for iPhone

Version 1.0

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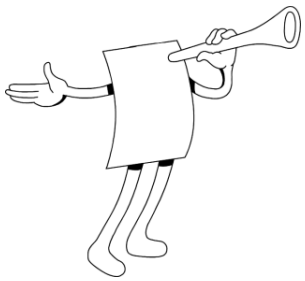


Chapter 1

Introduction

What is the Site Mapping Tool?

The SolarEdge Site Mapping Tool is an iPhone application that enables you to map the logical layout of the power optimizers at a SolarEdge site to their physical layout. It does so by enabling you to create a map of the physical layout of all the Modules at a site, and to then identify each power optimizer at the site by its barcode (serial number) as well as its logical ID. This logical ID indicates the logical mapping of the power optimizer to its logical (Inverter #, String #, Order #).

This data is then used on the SolarEdge Monitoring Portal to create a physical map of your site, enabling to harvest valuable insight visually, such as shading patterns, and to immediately pinpoint problems.

SolarEdge Site Mapping Tool Workflow

The following provides an overview of the workflow for using the Site Mapping Tool.

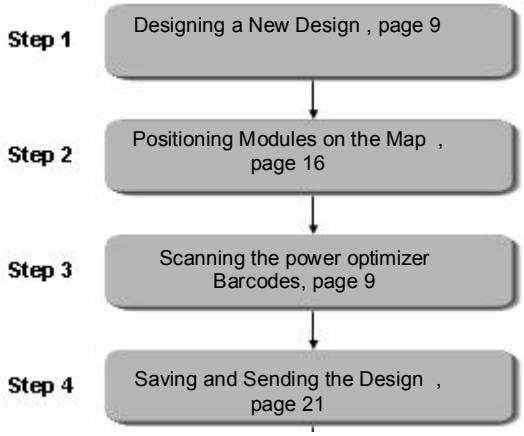


Figure 1: Mapping Tool Workflow

Installing the Mapping Tool

To install the Mapping Tool, download **SolarEdge Site Mapping Tool** from the iPhone App Store. Downloading and using the tool is free of charge.

Starting the Mapping Tool

► To launch the Mapping Tool:

- On the iPhone *Home* screen, tap the SolarEdge Site Mapping Tool icon  .

The splash screen appears, immediately followed by the main menu.

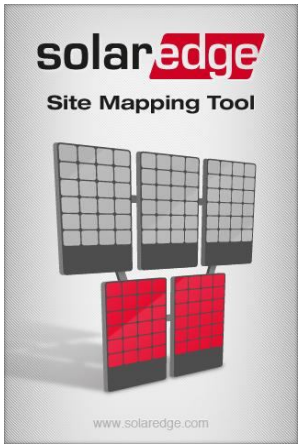


Figure 2: Site Mapping Tool Splash Screen

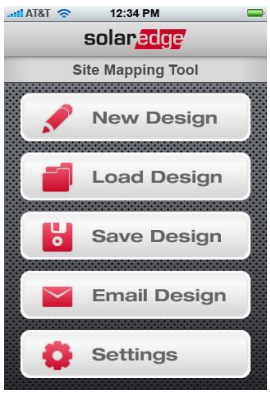


Figure 3: Main Menu

Setting the Interface Language

You can set the language of the Site Mapping Tool interface.

► To set the interface language:

1 In the *Main Menu* screen (see Figure 3), tap **Settings**.

The *Settings* screen opens; the current language setting is highlighted.

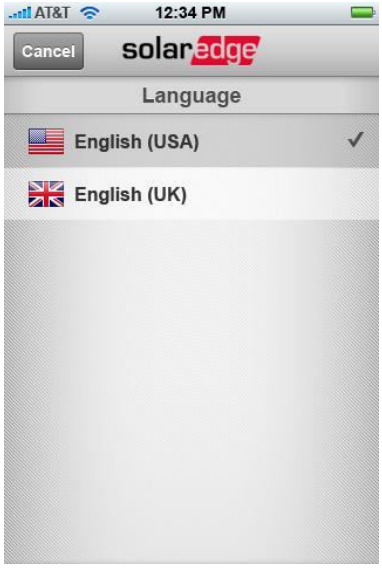
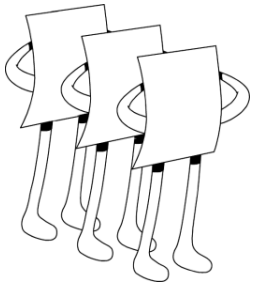


Figure 4: Settings

2 Tap the desired language for the interface.

The *Main Menu* screen appears in the selected language.



Chapter 2

Designing a New Design

Defining a New Design

Using the Site Mapping Tool, you can define on one screen, a physical layout of all the Module Groups and Inverters at a site. You can define a new design from scratch (see the following procedure), or you can load an existing design (see *Loading a Design* section), and create a new design based on it.

► To define a new design:

1 In the *Main Menu* screen (see Figure 3), tap **New Design**.

The *New Design* screen opens.

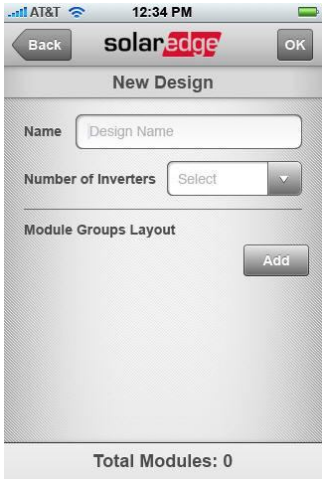


Figure 5: New Design Screen

2 In **Name**, type a name for the mapping that you are creating.

3 In **Number of Inverters**, select the number of Inverters installed at the site.

Loading a Design

► To load an existing design:

1 In the *Main Menu* screen (see Figure 3), tap **Load Design**.

The *Load Design* screen opens; the number of existing designs is displayed in parentheses in the screen header.

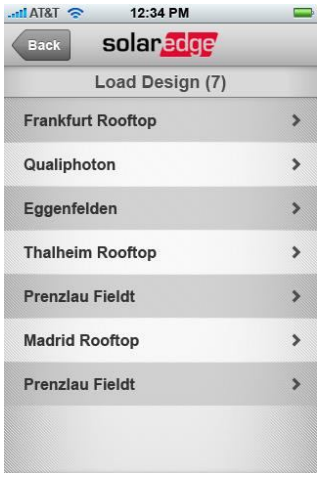


Figure 6: Load Design

2 Tap the design to load.

The *Main* screen opens for the selected design (see Figure 10).

Adding Module Groups to the Design

You can define up to thirty physical Module Groups at a single site.

► To add Module Groups:

1 In the *New Design* screen, tap **Add**.

The *New Design Picker* screen opens.

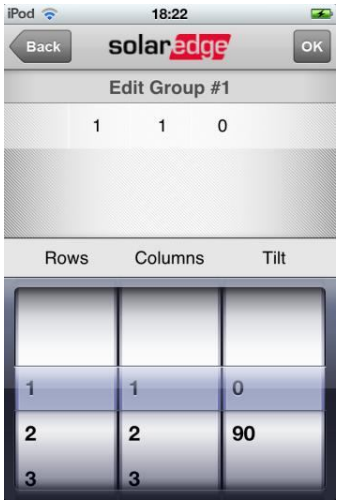


Figure 7: New Design Picker

2 In the bottom pane, scroll to and select the number of **Rows** and **Columns** in the Module Group. Also, scroll to and select the **Tilt** of each Module in the group, from its default position (which is perpendicular to the surface on which it is installed).

3 Tap **OK**.

The *New Design* screen opens.

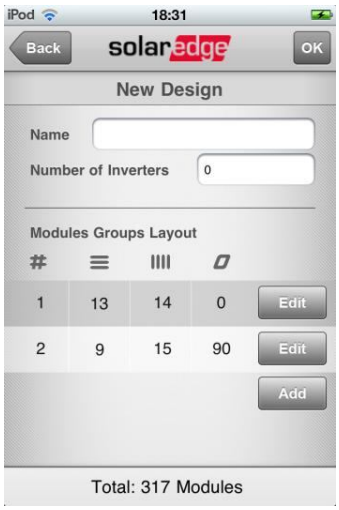


Figure 8: Module Groups Added to Design

In this screen, two Module Groups have been created. **Total Modules** displays the total number of modules in both groups.

The new groups and their information are displayed in the **Modules Groups Layout** table, as follows:

- # – the physical Module Group number
- ☰ – the number of rows of Modules in this group
- |||| – the number of columns of Modules in this group
- ▱ – the direction in which the Module Group is laid on the installation surface with respect to its borders. A '0' value means that this group is aligned with the area's borders, vertical side up. This is NOT the module's tilt or azimuth.

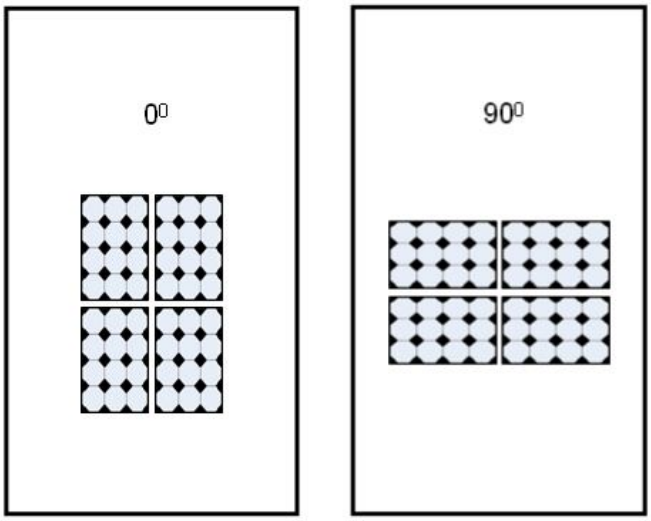


Figure 9: Main Screen

4 Repeat steps 1 to 3 for each physical Module Group that you want to add to the site.

5 Tap **OK**.

The *Main* screen appears, suggesting a possible physical layout for the selected Module Group.

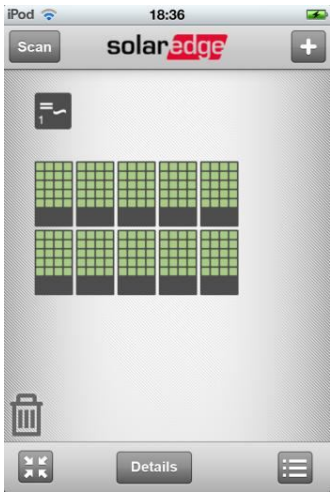


Figure 10: Main Screen

The modules are color coded as follows:

- **Dark Green** – scanned modules
- **Light Green** – not scanned modules
- **Grey** – disabled modules

You have completed defining the new design. Proceed to *Chapter 3, Positioning Modules on the Map* on page 16 to position the Modules on the map.

Deleting a Module Group

You can remove a Module Group from the site design.

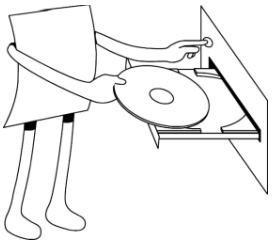
► To delete a Module Group:

1. In the *New Design* screen (see Figure 8), tap **Edit** near the group that you want to modify.

   The *Edit Group* screen is displayed.

2. Tap **Delete**.
3. Tap **OK**.

The *New Design* screen is displayed; the Module Group has been removed from the Module Groups Layout table. The Module Group numbers are updated, accordingly.



Chapter 3

Positioning Modules on the Map

After you have defined the physical Module Groups and Inverters installed at the site, including their dimensions and the tilt of each Module, you can place them in their proper location at the site.

► To position Module Groups and Inverters:

1. In the *Main* screen (see Figure 10), drag the Module Group or Inverter to the desired location on the screen.
2. Repeat for all the Inverters and Module Groups at the site.

NOTE:

- You can tap the  icon to zoom out to see the physical locations of all the Module Groups at the site.
- You can tap the  icon to view the *Main Menu* screen (see Figure 3).

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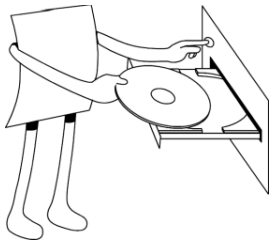


Chapter 4

Scanning the Power Optimizer Barcodes

Once you have designed the physical layout of the power optimizers at the site, map each power optimizer to its logical (Inverter #, String #), and then scan the barcode on each power optimizer at the site. You can determine the order of scanning the power optimizers (Scan Order), or can scan them in any order that is convenient for you (using left and right arrows on the screen).

Scanning is very simple - face the underside of the phone over the barcode of the power optimizer whose location corresponds to that of the selected power optimizer on the map, and wait to hear a confirmation sound.

If the modules are installed on an angled surface, such as a tilted roof, it is recommended that you scan the barcodes of the power optimizers, after installing the infrastructure (metal bars) for the modules, but before placing the modules on top of the power optimizer, so that you can access the power optimizers with the scanner (iPhone). This is not essential when the modules are installed at a tilt on a flat surface.

► To scan the power optimizers:

1 In the *Main* screen (see Figure 10), tap **Scan**.

The *Scan* screen opens.

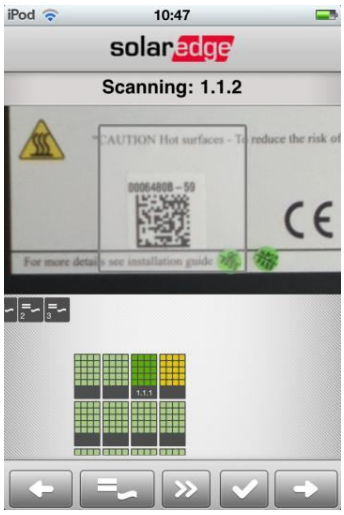


Figure 11: Scan Screen

2 Tap **Scan Order** to select the order of automatically scanning the modules (row order or column order).

The first power optimizer in the group is selected.

Alternately, tap the left or right arrow repetitively to scroll to any other power optimizer (outside of the automatic order).

NOTE:

You cannot select a power optimizer by tapping on it. You can only do so by tapping the left/right arrows.

3 In **Inverter** and **String**, select the (Inverter #, String #) to which the current power optimizer is logically mapped. (The default is (1,1).)

4 Scan the current power optimizer by facing the camera lens on the underside of the phone over the barcode. Make sure that the barcode image is centered on the screen and that the camera has focused (it does so automatically).

A sound is emitted, and the application automatically goes to the next module determined by the Scan Order. The barcode of the power optimizer is displayed on the top pane of the screen.

5 Continue performing the logical mapping and scanning of all the power optimizers in the map according to steps 3 and 4.

NOTE:

At any stage, you can change the logical mapping of a power optimizer, by scrolling to the power optimizer and changing its (Inverter #, String #).

6 After logically mapping and scanning all the power optimizers, tap **Finish**.

The *Main* screen appears, with the logical ID of each power optimizer displayed below it. Hovering over the power optimizer, displays its barcode.

You can proceed to *Chapter 5, Saving and Sending the Design* on page 21, to save and send the design to SolarEdge.

Manually Changing the Module Details

On the Main screen, the logical ID number of each power optimizer is displayed. This ID number is composed of the logical Inverter #, String #, Order #) of the power optimizer, separated from each other with a ".". You can manually
type the barcode (serial number) without scanning it, and/or the logical mapping information of a power optimizer, as required. You can also disable a power optimizer on the map that does not actually appear at the site; this may be the case when the angling of the roof does not leave sufficient room to place a module.

► To modify Module details:

1 In the *Main* screen (see Figure 10), scroll to a power optimizer, and then tap **Details**.

The Manual Details screen opens.

If the power optimizer has already been scanned, the barcode and logical information for the selected Module appears.

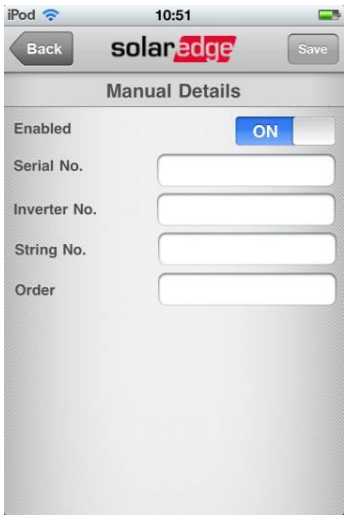


Figure 12: Manual Details

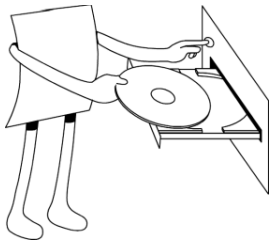
2 Change the values of the parameters that are described in the following table, as required.

Table 1: Manual Details Parameters

Parameter	Description
Serial No.	The barcode number on the power optimizer
Inverter No.	The number of the Inverter to which the power optimizer is logically mapped
String No.	The number of the String to which the power optimizer is logically mapped
Order	The logical power optimizer number
Enabled	Indicates whether the power optimizer is enabled (**ON**) or disabled (**OFF**). Use this feature if your module group is a few modules short of a perfect rectangle; define a rectangular module group, then indicate the missing modules by disabling

2 Tap **Save**.

The information for the selected Module is updated, and the new values appear on the map on the *Main* screen.



Chapter 5

Saving and Sending the Design

Saving the New Design

After your design is complete, you can save it. This design includes the physical layout of the modules, as well as each module's Logical ID. You can load a saved module at a later time, in order to view it or to edit it.

► To save the newly created design:

1 In the *Main* screen (see Figure 3), tap **Save Design**.

The *Design Details* screen opens.

Figure 13: Design Details

2 In the *Design Details* screen, modify/add design detail parameters that are defined in the following table, as required.

Table 2: Design Details Parameters

Parameter	Description
Design Name	The name of the mapping
Installer	The site installer
Country	The country of the site installation
City	The city of the site installation
Address	The address of the site installation
Zip Code	The zip code of the site installation
lat/lon	The Latitude and Longitude of the installation. Tapping the adjacent  icon to the right, enables you to obtain these parameters from the iPhone's GPS.

3 Tap **Save**.

The design is saved under its Design Name.

Sending the Design to SolarEdge

After your design has been saved, you can email it to SolarEdge, so that it can be uploaded to the monitoring portal at http://monitoring.solaredge.com.

► To send the design:

1 In the *Main* screen (see Figure 3), tap **Email Design**.

The *Email Design* screen opens.

Figure 14: Email Design

2 Tap **Send** to send the installation data to SolarEdge. The site would be loaded to the monitoring server within 24 hours.