PowIRCenter GUI
Quick-Start Guide

Quick Start: PowIRCenter GUI
Revision History & Pre-requisites

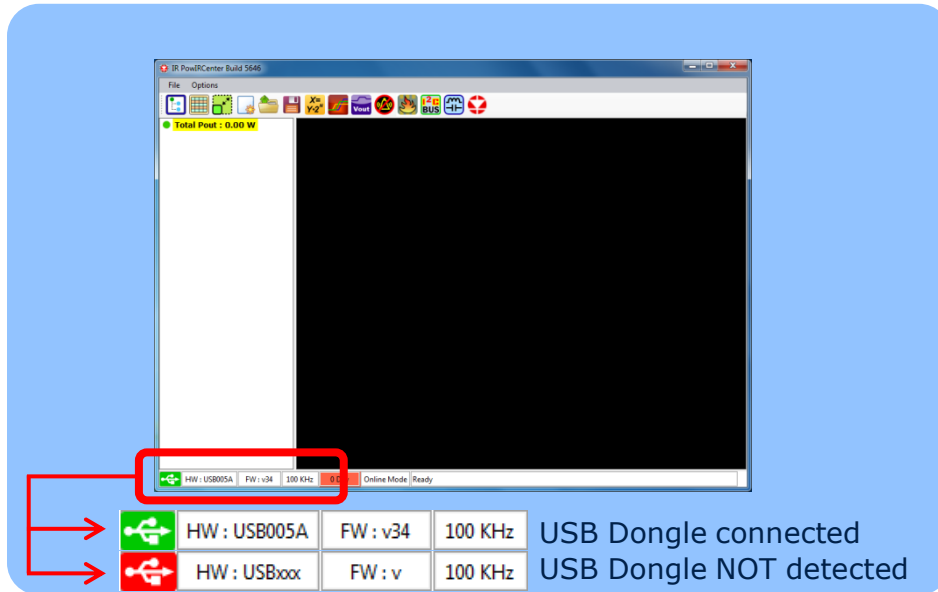| Revision Date	Change History
21 Jan 2016	Updated with "load config / write all registers" pictures & instructions
12 Jul 2015	1st release

- **Pre-Requisites**

  - Correctly installed PowIRCenter GUI

  - USB005 Dongle connecting a PC to an Infineon DC/DC Voltage regulator IC

Quick Start: PowIRCenter GUI
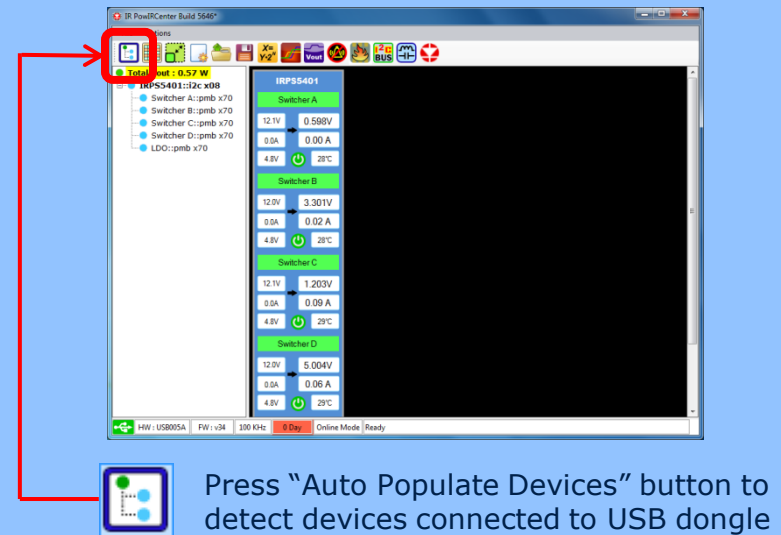## Establishing Communication & Discovering Devices

Step 1 **Start PowIRCenter & Connect USB Dongle**
Check the Dongle is detected

| | HW : USB005A | FW : v34 | 100 KHz | USB Dongle connected |
| | HW : USBxxx | FW : v | 100 KHz | USB Dongle NOT detected |

Step 2 **Detect devices on the bus**

Press "Auto Populate Devices" button to detect devices connected to USB dongle

Quick Start: PowIRCenter GUI
Status & Menu Options

Set up Sequencing

Set up Margining & transitions

Clear Fault Registers

Multi-Device Programmer

Applies to all devices detected

IR PowIRCenter Build 5646*

File   Options

Total Pout : 0.57 W
IRPS5401::i2c x08
  Switcher A::pmb x70
  Switcher B::pmb x70
  Switcher C::pmb x70
  Switcher D::pmb x70
  LDO::pmb x70

IRPS5401

Switcher A

12.1V   0.598V
0.0A   0.00 A
4.8V   28°C

Switcher B

12.0V   3.301V
0.0A   0.02 A
4.8V   28°C

Switcher C

12.1V   1.203V
0.0A   0.09 A
4.8V   29°C

Switcher D

12.0V   5.004V
0.0A   0.06 A
4.8V   29°C

Output voltage

Output current

Device temperature

Input voltage

Input current

Controller Bias voltage

Dongle version

Firmware version

PMBus speed

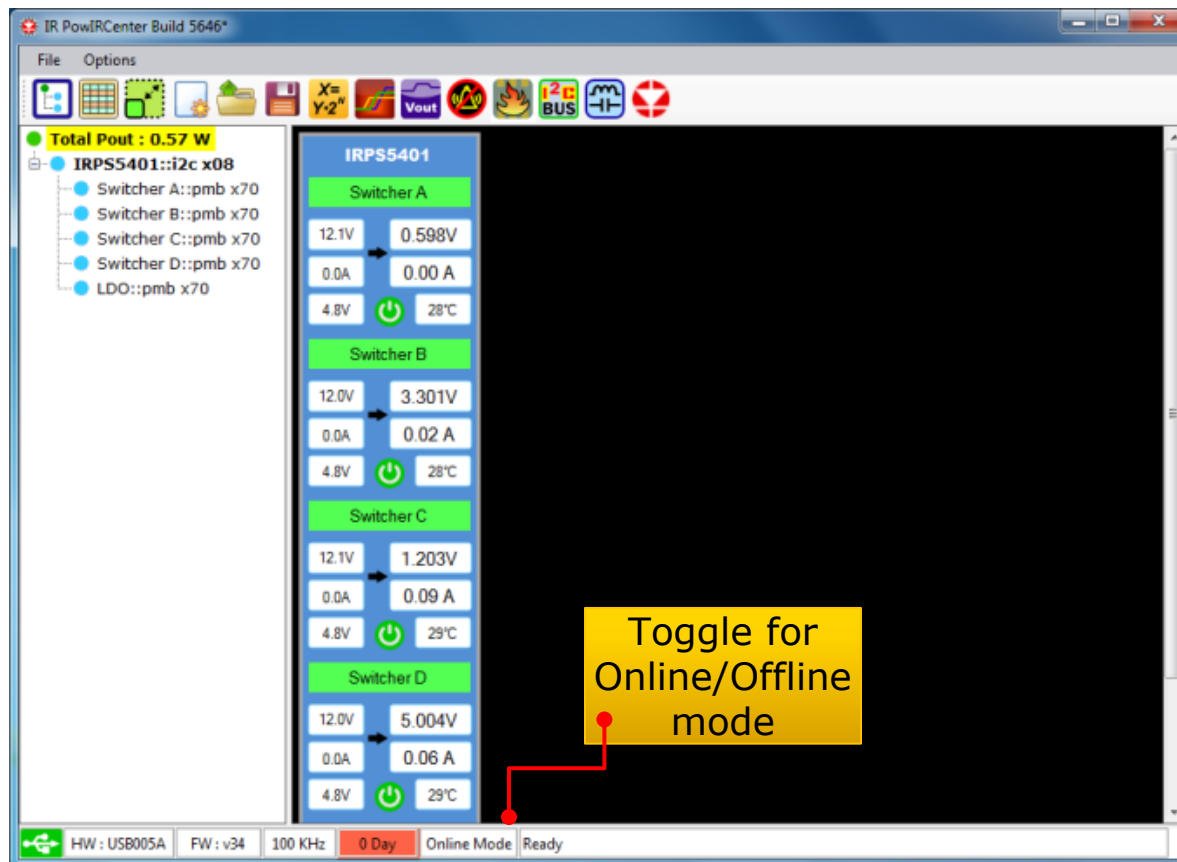HW : USB005A   FW : v34   100 KHz   0 Day   Online Mode   Ready

Quick Start: PowIRCenter GUI
On-line / Off-line mode

"**On-line**" is the normal operating mode and requires a device to be connected. The GUI displays the contents of the devices registers.
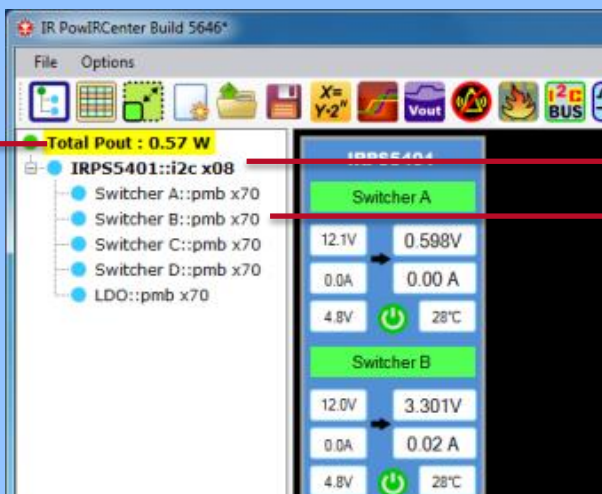
"**Off-line**" is a mode to allow use of PMBus commands to set up a config file without a device being connected.

Toggle for Online/Offline mode

Quick Start: PowIRCenter GUI
Navigation

Access different views

IRPS5401::i2c x08
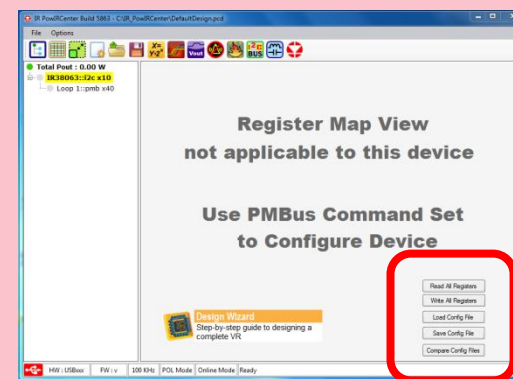
Click **device name** to access save / load configuration files menu.

Access Load/Save Config

Register Map View not applicable to this device
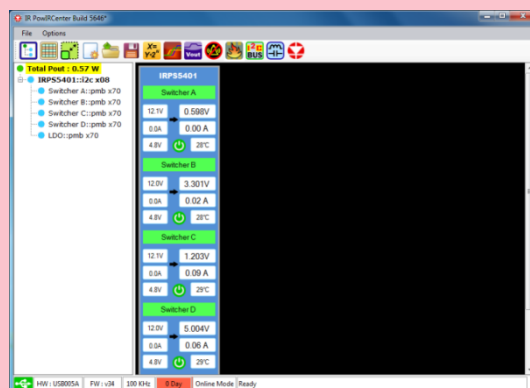
Use PMBus Command Set to Configure Device

Switcher B::pmb x70

Click **channel** to access PMBus commands for selected channel
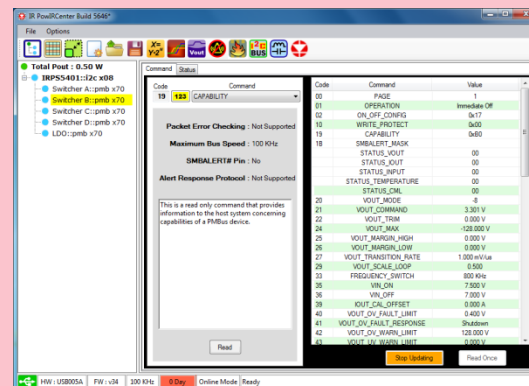
Total Pout : 0.57 W

Click **Total Pout** to return to the Board View

Board View

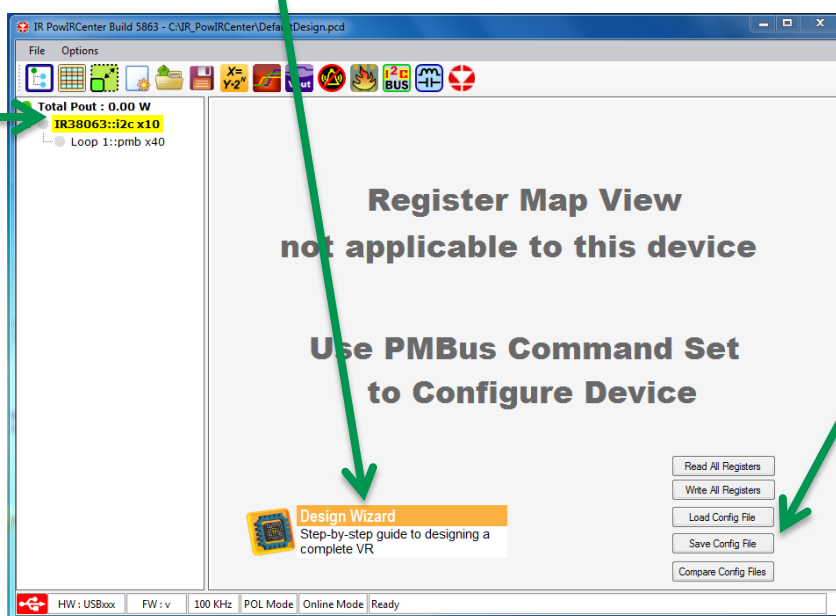
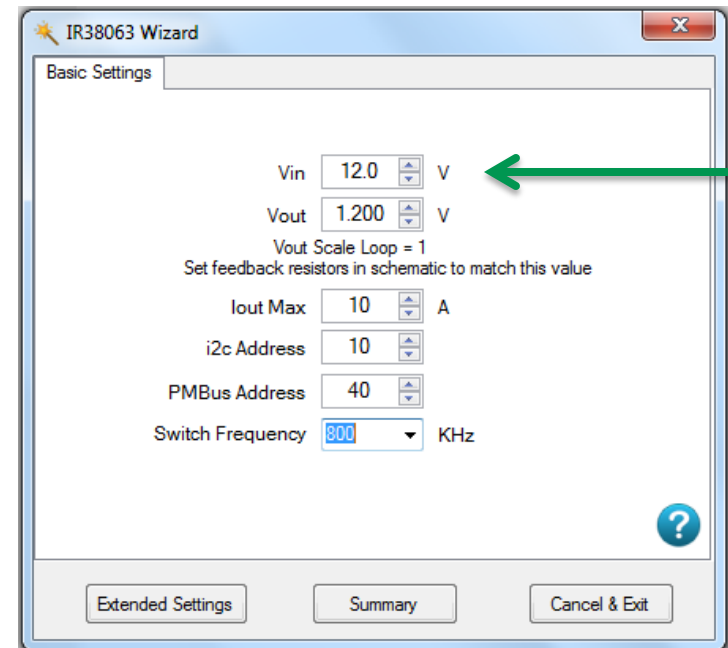**Access PMBus commands**

Quick Start: PowIRCenter GUI
Configuration Wizard

There are 66+ PMBus commands. Use the Wizard to quickly set up all the parameters to give a good starting configuration.

- Select the I2C view

- Click "Design Wizard"

- Provide 6 input parameters (in basic mode) and the Wizard will create a complete starter configuration.

- The config can be saved for later use

Quick Start: PowIRCenter GUI:
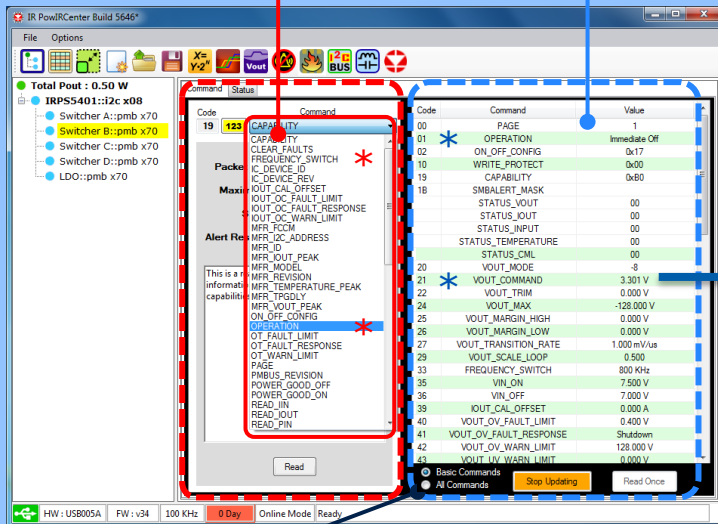## Send PMBus Commands

Select Command for Selected Channel

Select command from pull down List

or
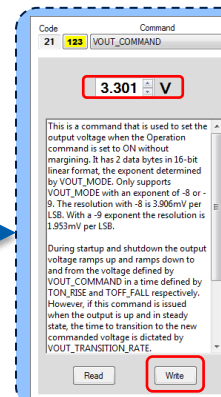
Click the command in right panel.

PMBus Command Screen

Filter PMBus Commands

Click "All Commands" or "Basic Commands" to filter the view of available PMBus commands

■ **Usage**

□ PMBus commands are used to
— Read status
— Change configuration
— Save configuration into NVM

Example Command

**Change Vout
(Command: VOUT_COMMAND)**

1. Enter Vout voltage.
2. Press enter after entering value.
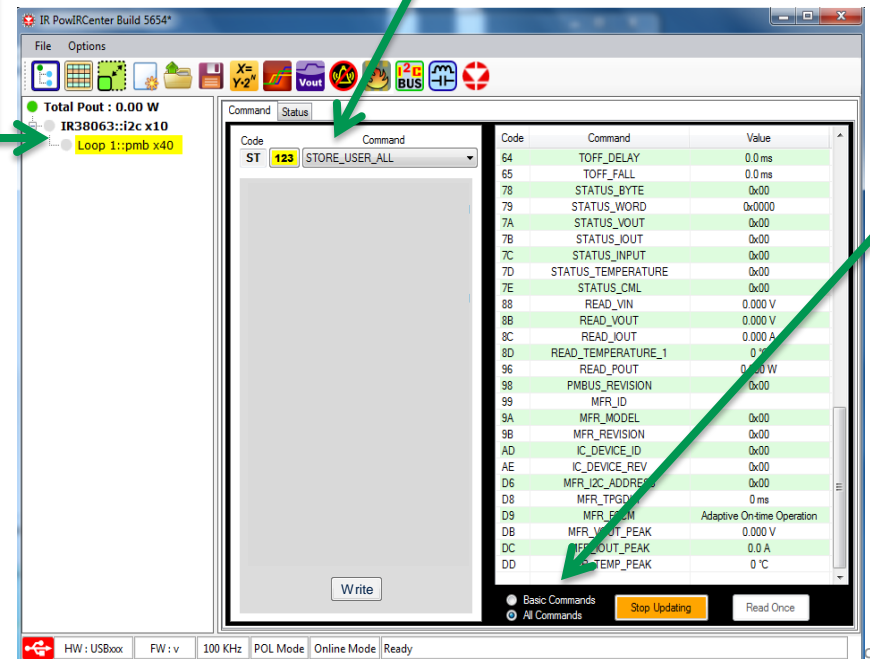3. Click "Write" button to send the command.

- **Load the Config File (or use PMBus commands to set up the required configuration)**

  □ Select the I2C view

  □ Click "Load Config File to load the a configuration into the GUI

  □ Click "Write All registers" to transfer the configuration into the devices operating memory (this step can be skipped if 'Options->Automatically Write Config File after Loading' is enabled)

- **Write to the IC's non-volatile memory (NVM)**

  □ Select the PMBus view

  □ Ensure "All Commands" is selected

  □ Send "STORE_USER_ALL" command

Quick Start: PowIRCenter GUI
Programming Multiple Parts on a Board

- The PowIRCenter GUI contains a utility to program multiple parts at once that are installed on a customer system board:

  1. Load or create your system configuration in the PowIRCenter GUI
  2. Launch the Multiple Device Programmer Interface (press the 🔥 icon)
  3. Select the devices that you want programmed
  4. For each device, click and select the appropriate config file
  5. Select "Program & Verify" to transfer the configurations into your selected devices