

PowIRCenter GUI Quick-Start Guide

February 2016



Quick Start: PowIRCenter GUI

Revision history and pre-requisites



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

› Pre-Requisites

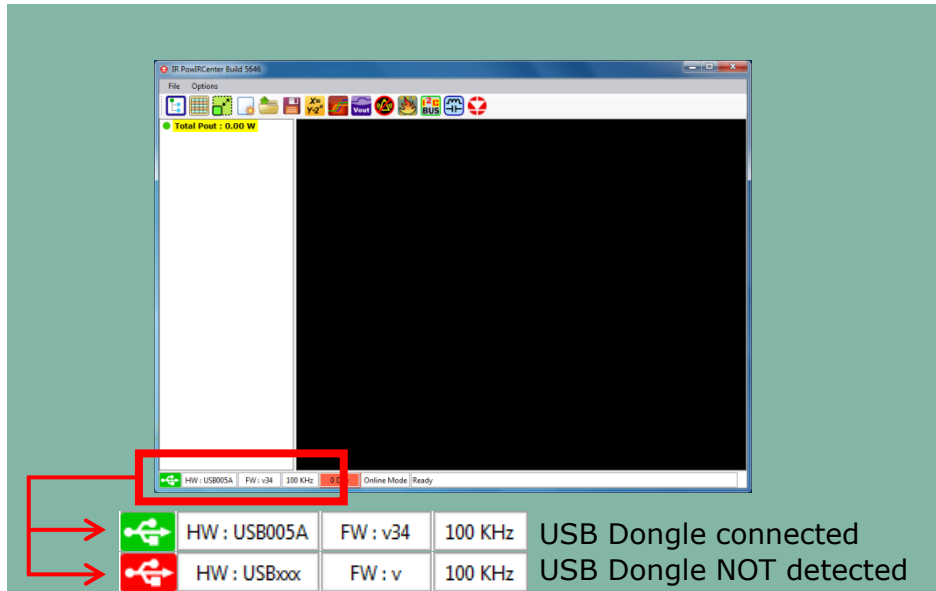
- Correctly installed PowIRCenter GUI. Download from <http://www.infineon.com/cms/en/product/promopages/power-center-software/>
- USB005 Dongle connecting a PC to an Infineon DC-DC voltage regulator IC

Quick Start: PowIRCenter GUI

Establishing communication & discovering devices

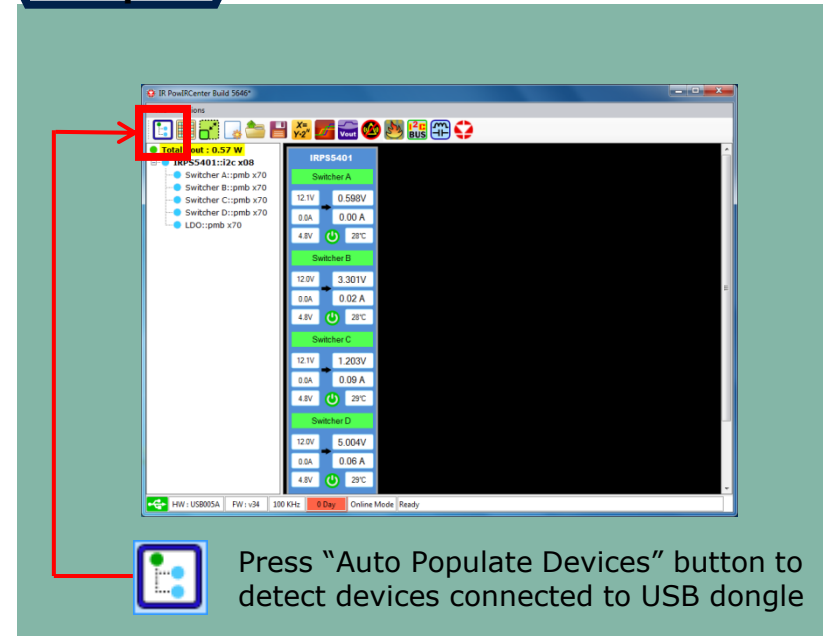
Step 1

Start PowIRCenter & Connect USB Dongle
Check the Dongle is detected



Step 2

Detect devices on the bus

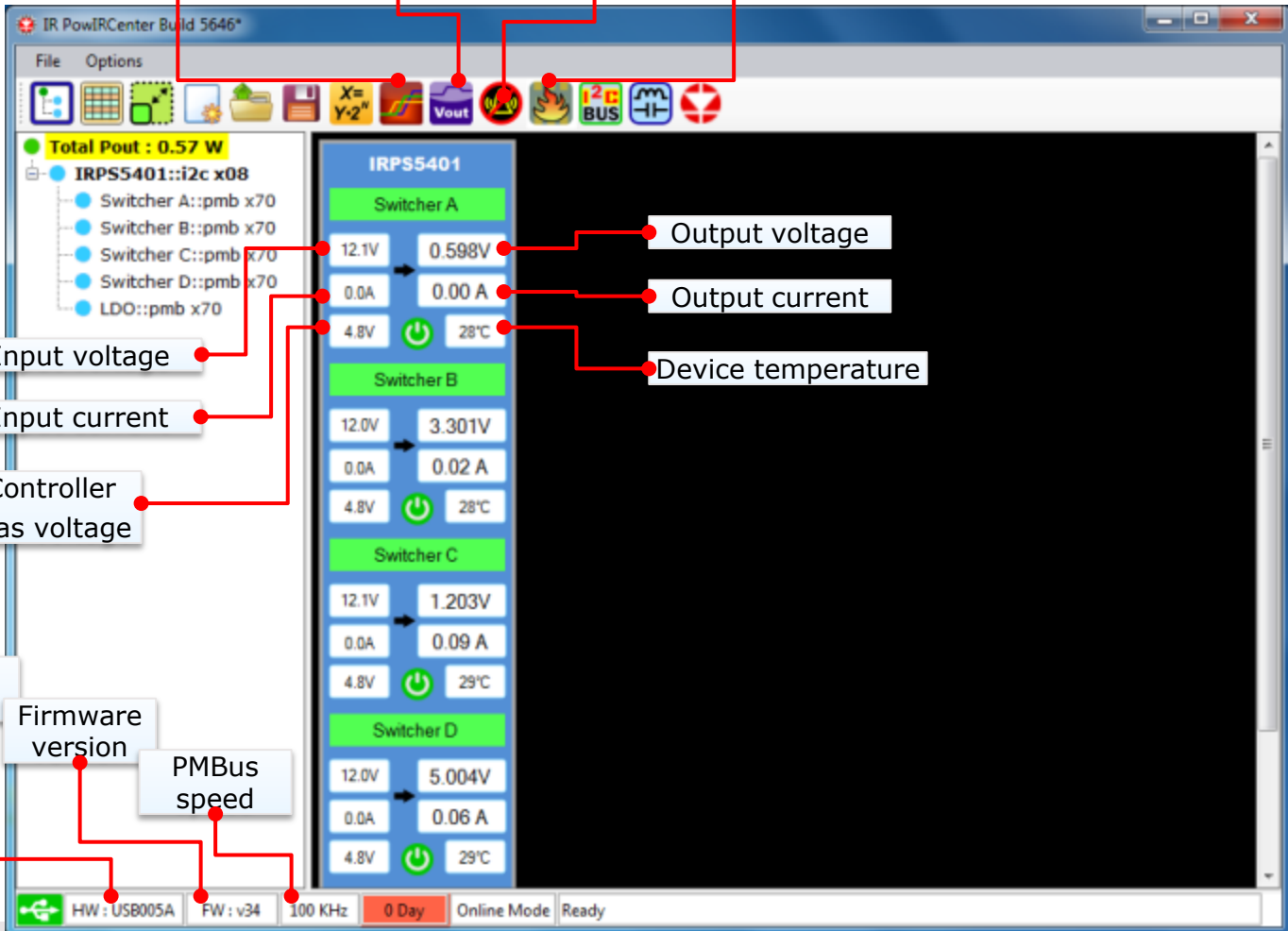


Quick Start: PowIRCenter GUI

Status and menu options

Applies to all devices detected

Set up Sequencing Set up Margining & transitions Clear Fault Registers Multi-Device Programmer



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 29°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

Input voltage

Input current

Controller Bias voltage

Output voltage

Output current

Device temperature

Dongle version

Firmware version

PMBus speed

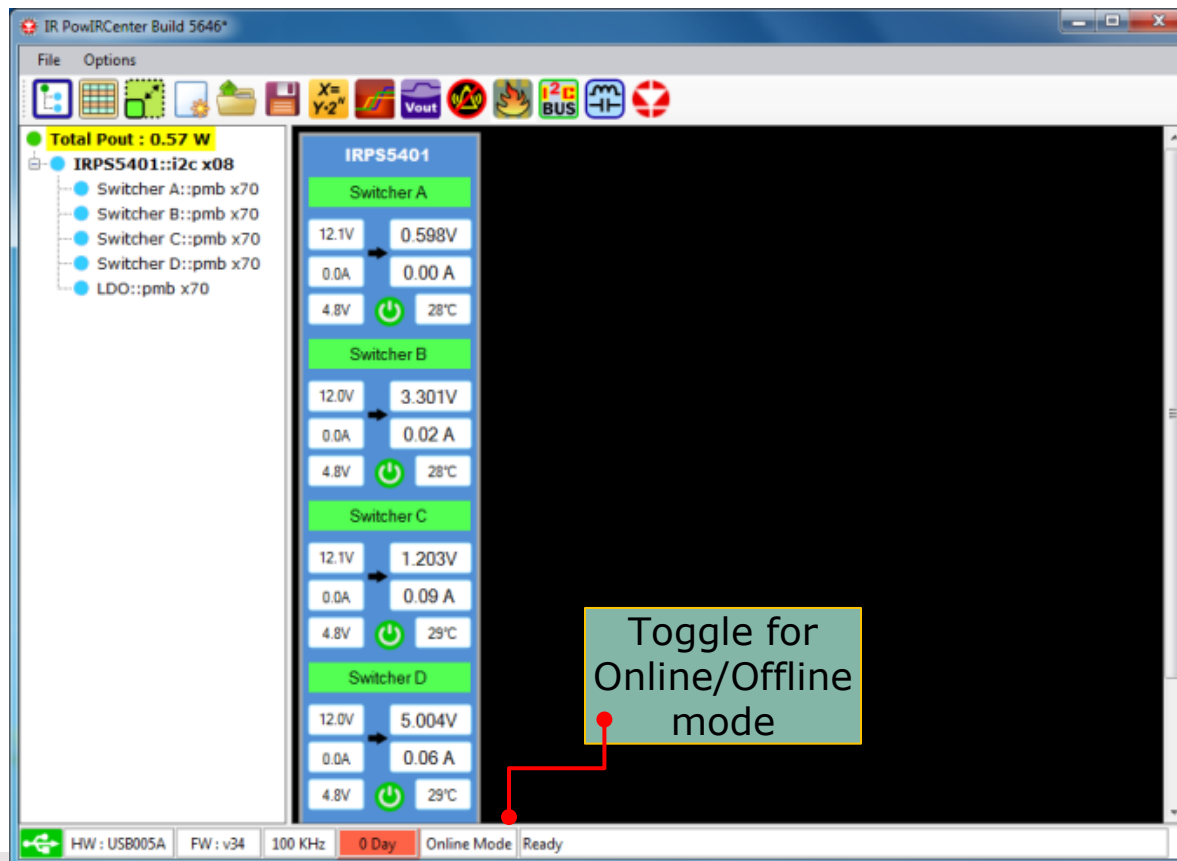
HW: USB005A FW: v34 100 KHz 0 Day Online Mode Ready

Quick Start: PowIRCenter GUI

On-line/Off-line mode

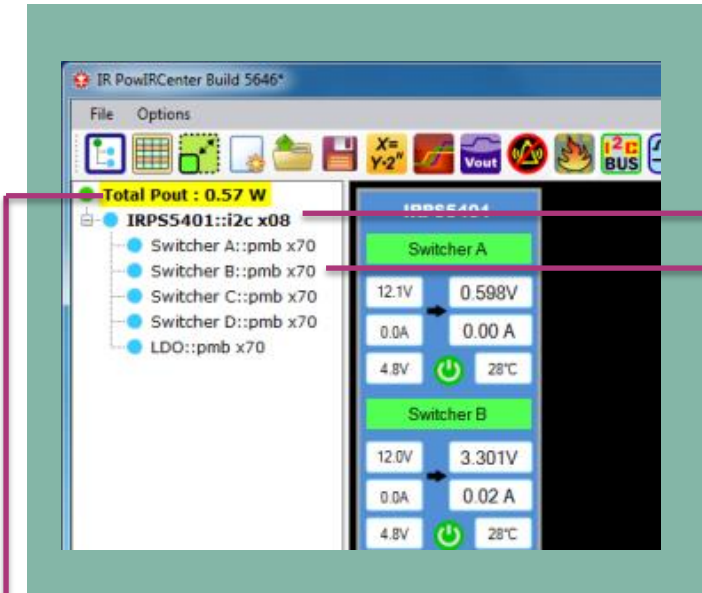
“**On-line**” is the normal operating mode and requires a device to be connected. The GUI displays the contents of the devices registers.

“**Off-line**” is a mode to allow use of PMBus commands to set up a config file without a device being connected.



Quick Start: PowIRCenter GUI Navigation

Access different views



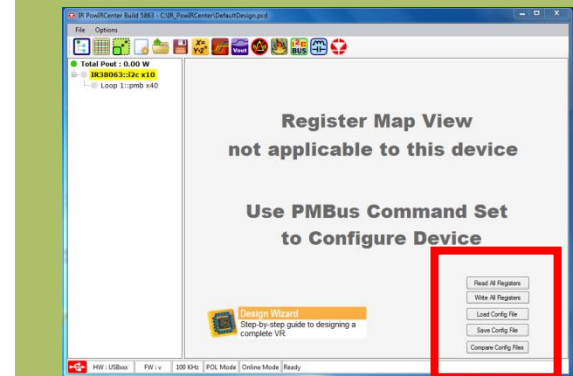
Click **IRPS5401::i2c x08**

Click **device name** to access save / load configuration files menu

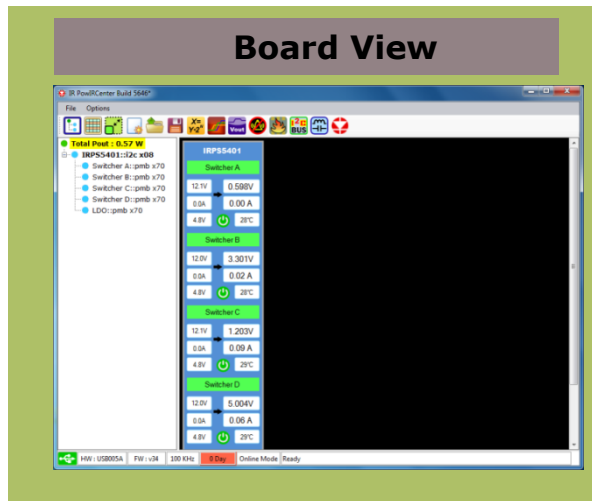
Click **Switcher B::pmb x70**

Click **channel** to access PMBus commands for selected channel

Access Load/Save Config



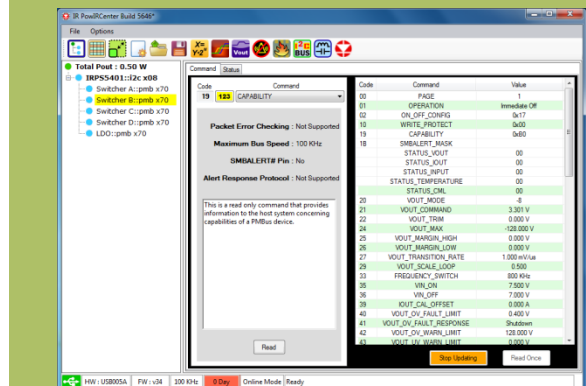
Board View



Click **Total Pout : 0.57 W**

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

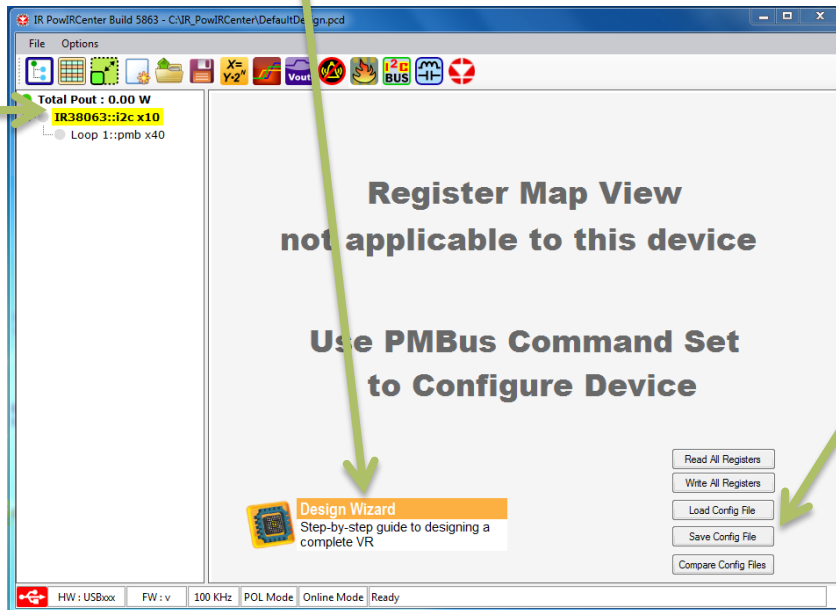
Access PMBus commands



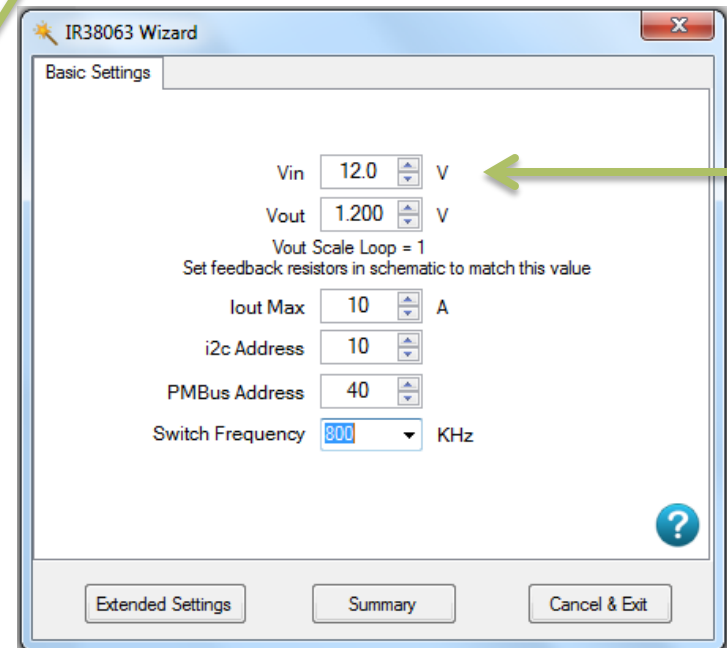
Quick Start: PowIRCenter GUI Configuration Wizard

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

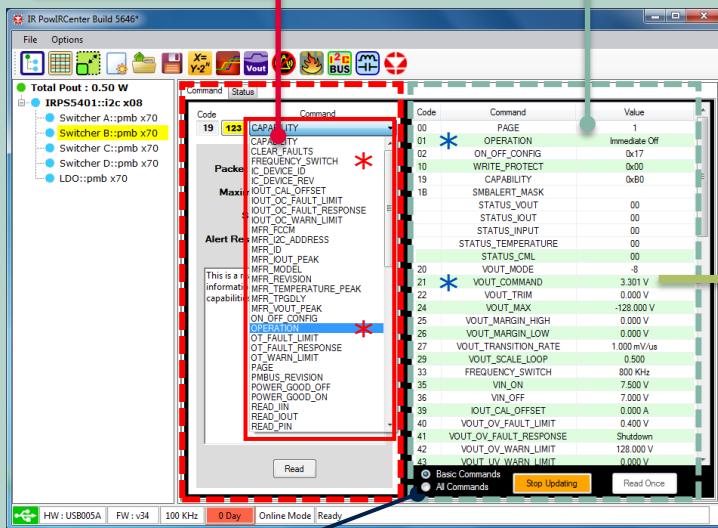
Select command for selected channel

Select command from pull down list

or

Click the command in right panel

PMBus Command Screen



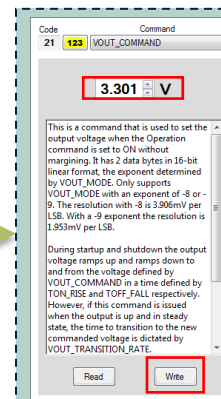
Filter PMBus commands

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



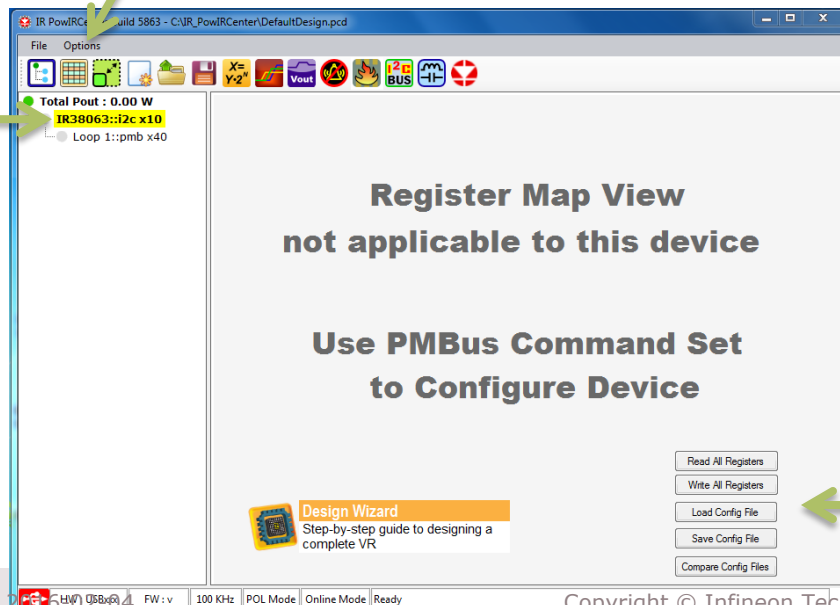
Change V_{out}
(Command: VOUT_COMMAND)

1. Enter V_{out} voltage
2. Press enter after entering value
3. Click "Write" button to send the command

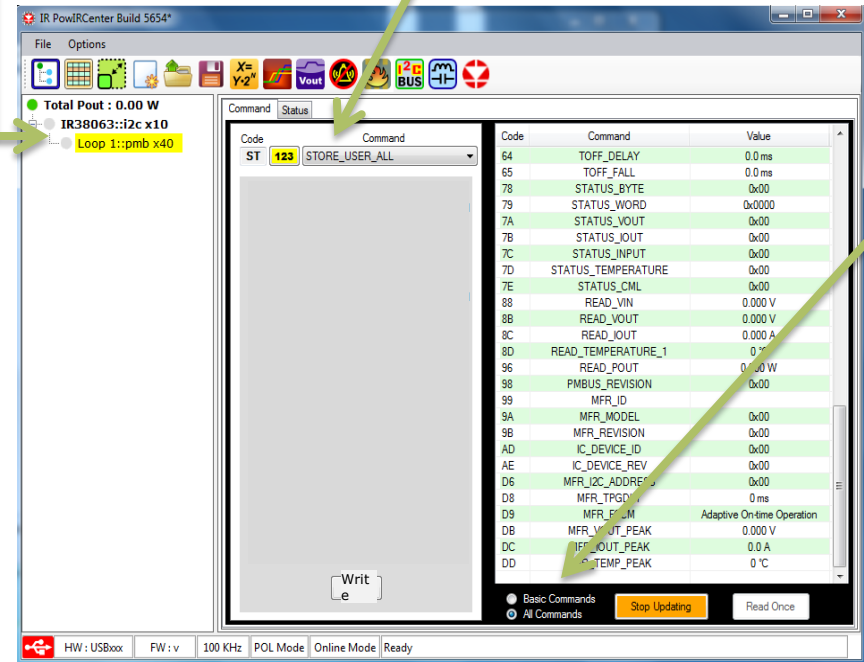
Quick Start: PowIRCenter GUI

Saving a config file into NVM

- › 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)




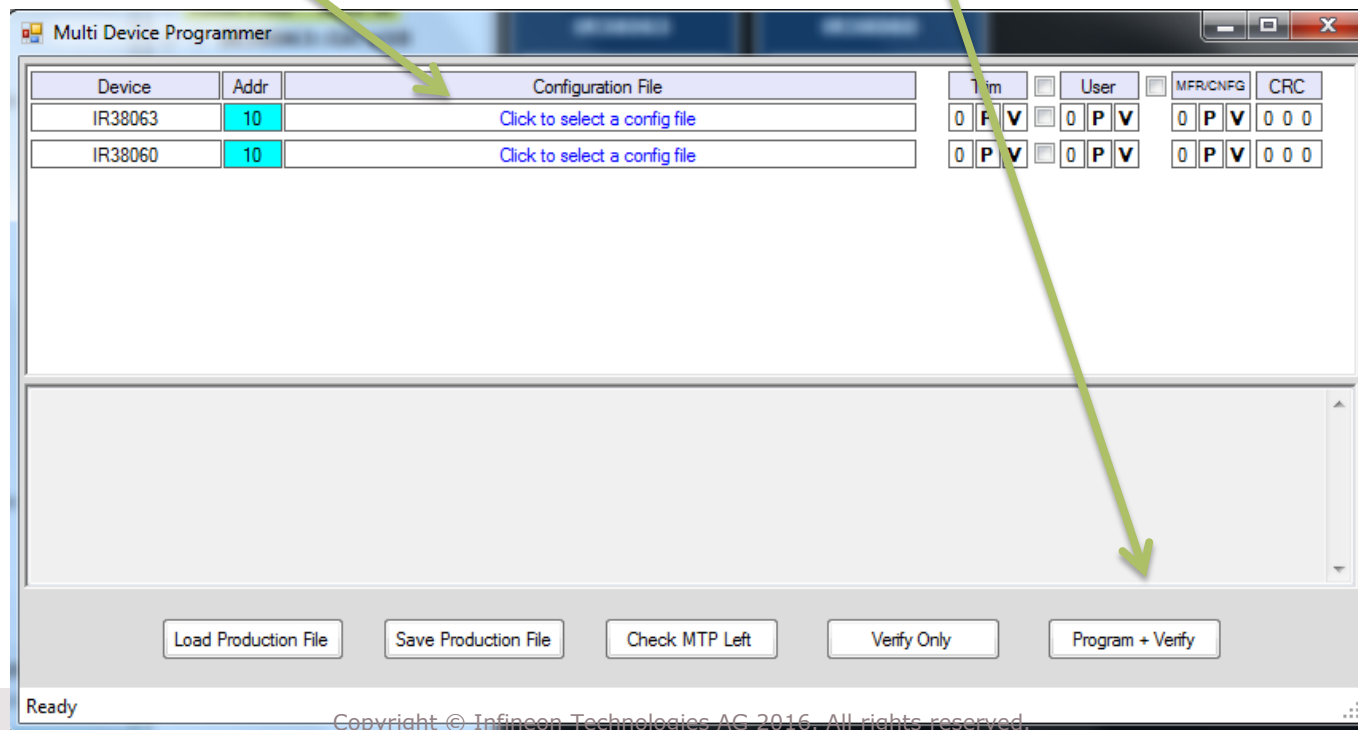
- › Write to the IC's non-volatile memory (NVM)
 - Select the PMBus view
 - Ensure "All Commands" is selected
 - Send "STORE_USER_ALL" command



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





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