smartlabs

INSTEON

PowerLinc Modem (PLM) Quick-Start Guide

Version 20110714

Congratulations on purchasing your SmartLabs PowerLinc™ Modem (PLM) Developer Kit (2600S).

The purpose of this Quick-Start Guide is to help you connect a PowerLinc Modem (Dual-Band) to your computer and start using it right away to control a light plugged into a Developer LampLinc™ (Dual-Band). Complete details can be found in the *INSTEON Developer's Guide* and the *INSTEON Modem Developer's Guide* located at http://code.insteon.net, which you can access using your INSTEON Developer's username and password.

Included in this kit:

- Developer PowerLinc Modem, Serial (Dual-Band)
- Developer PowerLinc Modem, USB (Dual-Band)
- Developer USB Portable Adapter
- Developer LampLinc (Dual-Band)
- Serial Cable (RJ45-to-RS232)
- USB Cable
- Small light bulb to be plugged into the bottom of the LampLinc (7.5 Watt utility light)
- Adapter plug for bulb
- INSTEON Alliance membership and access to the Developer's forum and Developer's code site: http://code.insteon.net

What you will need to get started:

- Power strip to plug in both the PowerLinc Modem and the LampLinc
- Computer with internet connection
    - For serial, a RS232 serial port (or Serial to USB adapter)
- Trial copy of the software *Docklight Scripting* software (use most recent version, downloaded from http://www.docklight.de/download_en.htm)
- The INSTEON sample script for Docklight, downloaded from http://www.insteon.net/includes/scripts/PLM_Basic_Command_Set.zip

NOTE

Every end-user INSTEON device contains a unique 3-byte INSTEON ID burned in at the factory. However, each type of developer module contains the same INSTEON ID, so that the example scripts provided below will work without modification. We have given all Developer PLM modules INSTEON ID AA.AA.AA, and all Developer LampLinc modules INSTEON ID 11.11.11. Because the presence of two or more INSTEON devices with the same ID will cause communication problems, you should be careful never to use two or more Developer PLMs or two or more Developer LampLincs together in the same INSTEON network.

PowerLinc Modem Quick-Start Guide

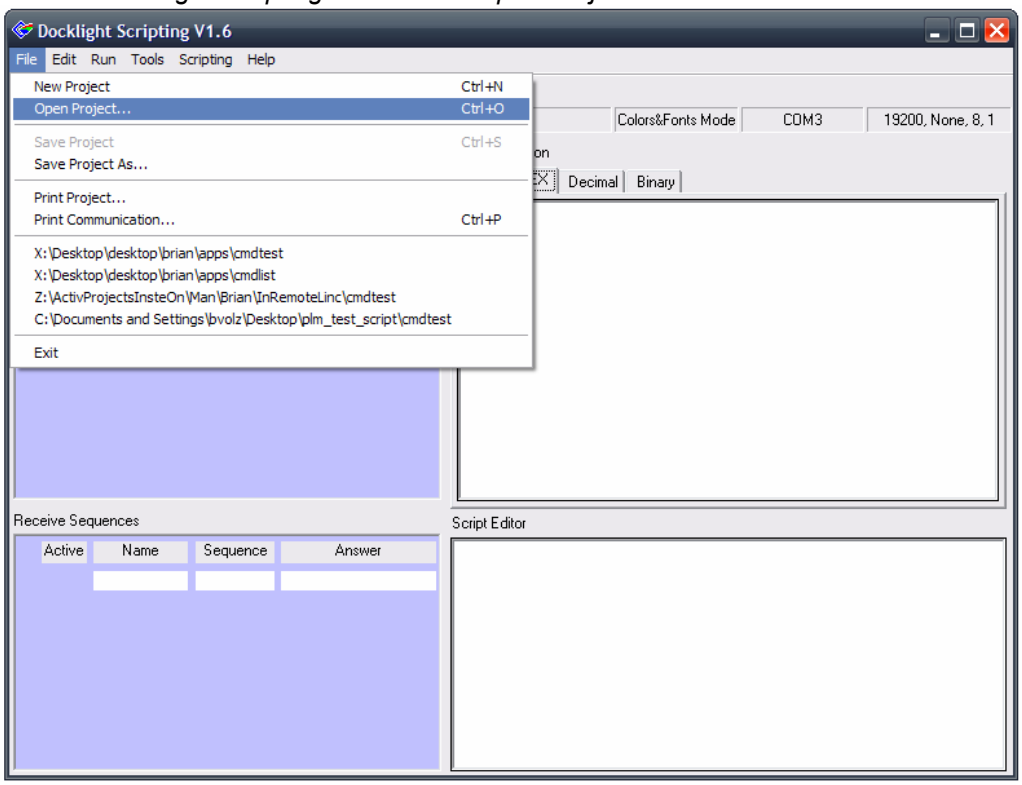
Getting Started

Follow the steps below to establish communications with the PowerLinc Modem, and then use it to control a light plugged into the Developer LampLinc module.

1. Set up the PLM and Developer LampLinc:
    a. Plug the light bulb into the bottom of the Developer LampLinc
    b. Plug the PLM and the Developer LampLinc into a power strip
    c. Using the provided cable, connect the PLM to an RS232 serial or USB port on your PC

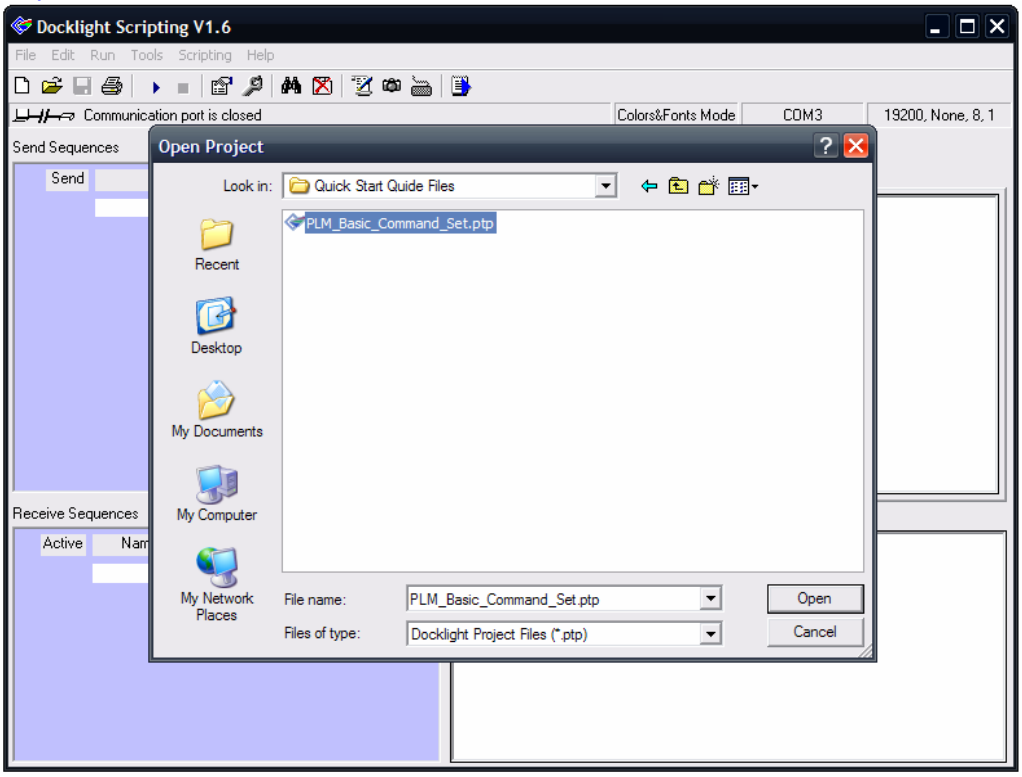
2. Unzip *Docklight_Scripting.zip* and run *Setup.exe* to install the most recent version of the *Docklight Scripting* software

3. Launch *Docklight Scripting* and choose *Open Project*…from the *File* menu



PowerLinc Modem Quick-Start Guide

4. Locate and open *PLM_Basic_Command_Set.ptp* that you downloaded from http://code.insteon.net

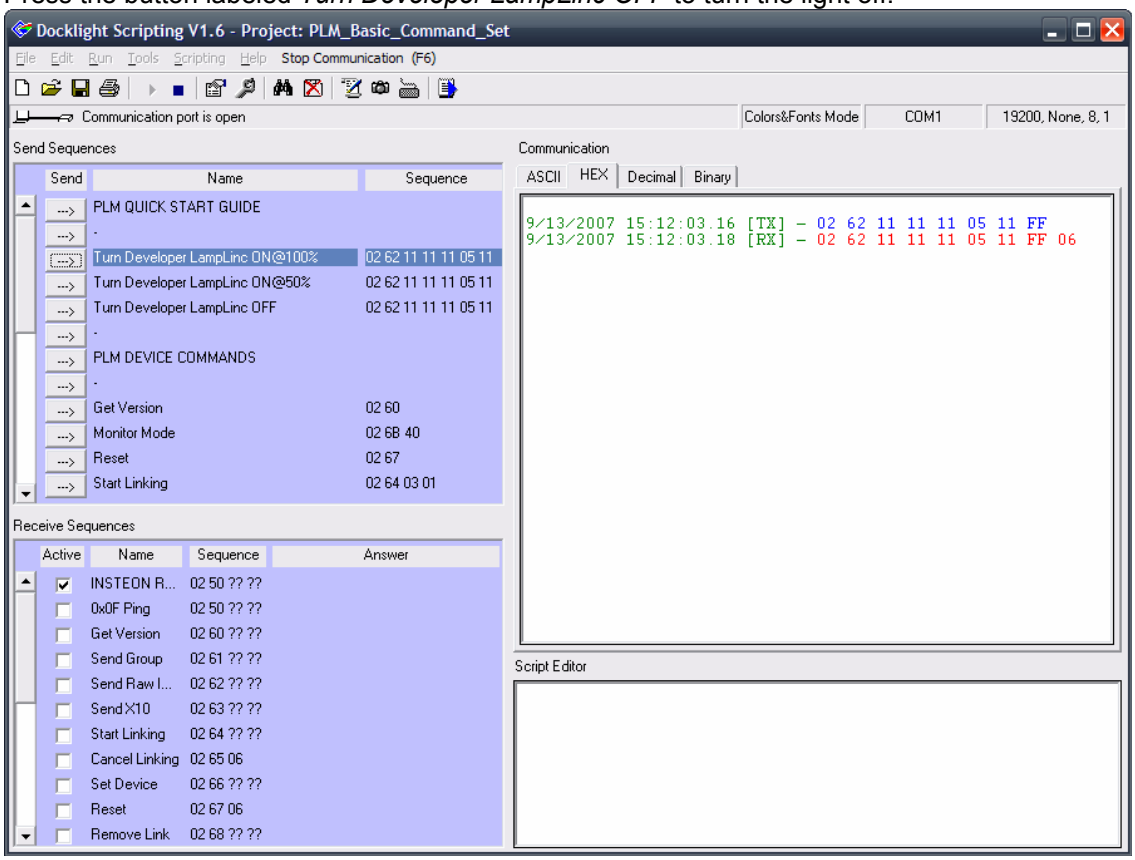


PowerLinc Modem Quick-Start Guide

5. Be sure the *HEX* tab is selected for the *Communication* window on the right.

   Now, to turn on the light, press the *Send* button labeled *Turn Developer LampLinc On@100%*.

   Press the button labeled *Turn Developer LampLinc OFF* to turn the light off.

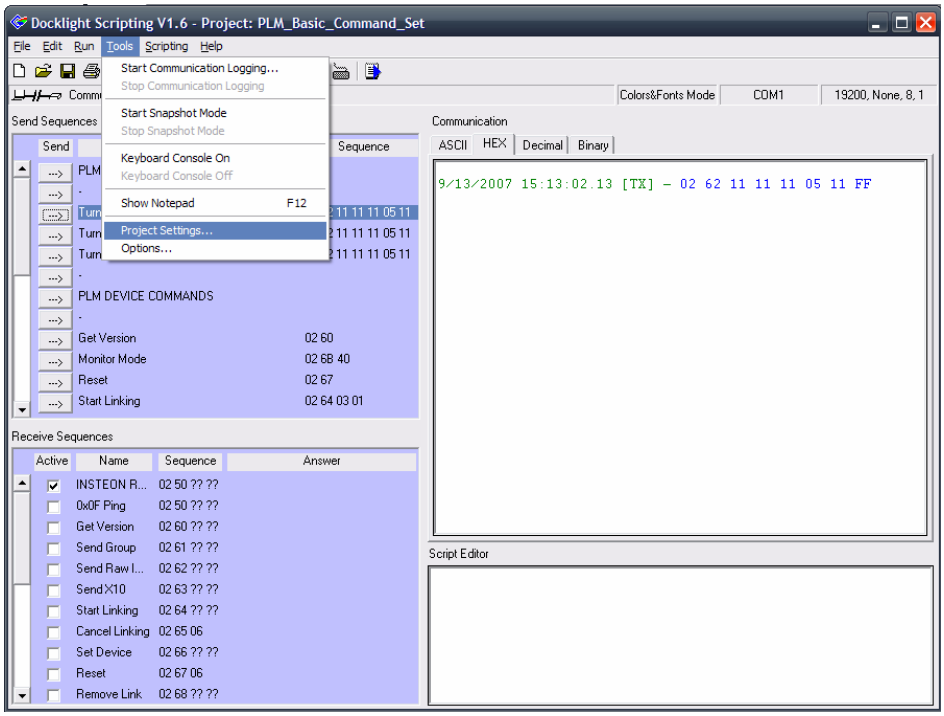


   If you are able to control the light, you are now ready to experiment with other PLM commands, such as those given at the end of this *Quick-Start Guide*. Please consult the *INSTEON Modem Developer's Guide*, available at http://code.insteon.net, for a complete catalog of all PLM commands. In-depth information about all aspects of INSTEON is available in the book-length *INSTEON Developer's Guide*, which you can also find at http://code.insteon.net.

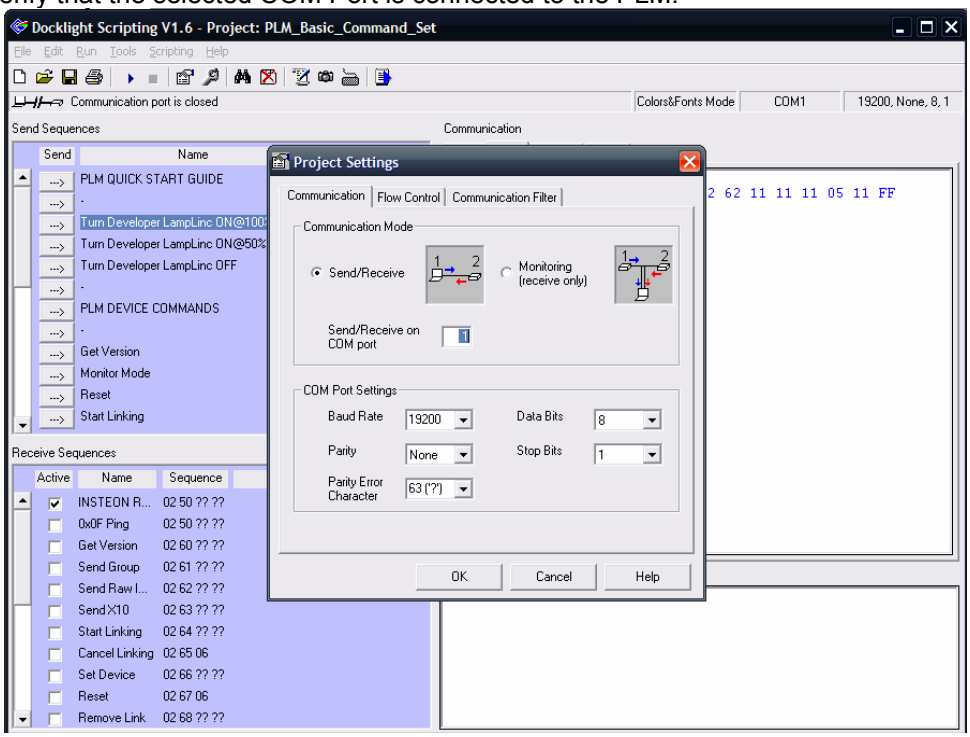
   If you were not successful in controlling the light, please proceed to step 6.

PowerLinc Modem Quick-Start Guide

6. Try changing the COM Port for the PLM by selecting *Project Settings*…from the *Tools* menu



7. Verify that the selected COM Port is connected to the PLM.



Repeat step 5.

For further troubleshooting, check that the serial cable is connected correctly and that the light bulb is fully screwed in and working.

PowerLinc Modem Quick-Start Guide

Examples of Other PLM Commands

For more detailed explanations and additional commands please see the *INSTEON Modem Developer's Guide* available at http://code.insteon.net. In the following examples, square brackets contain the hexadecimal INSTEON Modem (IM) Command number along with the IM Command name as given in the *INSTEON Modem Developer's Guide*.

Get Version [**0x60**, *Get IM Info*]: Pings the PLM and confirms that communication is working properly. If the PLM is correctly connected to Docklight, the response will be returned right away.
[TX] - 02 60
[RX] - 02 60 AA AA AA 03 05 54 06
AA AA AA is the INSTEON ID of the PLM
03 05 is its Device Category
54 is its firmware revision

Monitor Mode [**0x6B**, *Set IM Configuration*]: Allows all messages from an originating device contained in the PLM's ALL-Link database to be passed up to you.
[TX] - 02 6B 40
[RX] - 02 6B 40 00 00 06

Reset [**0x67**, *Reset the IM*]: Clears the PLM's ALL-Link database
[TX] - 02 67
[RX] - 02 67 06

Start ALL-Linking [**0x64**, *Start All-Linking*]: Enters All-Linking Mode for 4 minutes.
1. Send the *Start All-Linking* command. The first **0x01** is a flag denoting that the PLM is a Controller. The second **0x01** is the All-Link group number.
[TX] - 02 64 01 01
[RX] - 02 64 01 01 06 02 53 01 01 11 11 11 01 00 22
2. Press & hold the Set button on the unit you want to Link to the PLM. You will then be able to find the record of the Link in the PLM's All-Link database.

Delete linking [**0x64**, *Start All-Linking*]: Enters Unlinking Mode for 4 minutes. The **0xFF** is a flag denoting Unlinking Mode. The **0x01** is the All-Link group number.
[TX] - 02 64 FF 01
[RX] - 02 64 FF 01 06

Cancel linking [**0x65**, *Cancel All-Linking*]: Exits All-Linking mode.
[TX] - 02 65
[RX] - 02 65 06

Get First Database Entry [**0x69**, *Get First All-Link Record*]: Returns the very first record in the PLM's All-Link database in an **0x57** *All-Link Record Response* message.
[TX] - 02 69
[RX] - 02 69 06 02 57 E2 01 11 11 11 01 00 22

Get Next Database Entry [**0x6A**, *Get Next All-Link Record*]: Returns all the other records in the PLM's All-Link database incrementally in a series of **0x57** *All-Link Record Response* messages. When there are no more records, you will receive a NAK (**0x15**).
[TX] - 02 6A
[RX] - 02 6A 06 02 57 A2 01 04 F7 EE 01 00 22
[TX] - 02 6A
[RX] - 02 6A 15

PowerLinc Modem Quick-Start Guide

Group 1 On [**0x61**, *Send All-Link Command*]: Sends an INSTEON command to activate All-Link Group 1. [TX] - 02 61 01 11 00
[RX] - 02 61 01 11 00 06

Group 1 Off [**0x61**, *Send ALL-Link Command*]: Sends an INSTEON command to deactivate All-Link Group 1.
[TX] - 02 61 01 13 00
[RX] - 02 61 01 13 00 06

Send X10 [**0x63**, *Send X10*]: Sends an X10 message. For a list of available messages please see the *INSTEON Modem Developer's Guide*.
[TX] - 02 63 01 00
[RX] - 02 63 01 00 06