

PrimePDA
In-situ Meter Data Collection
(On-site Meter Probes)

Table of Contents

Introduction	3
PrimePDA Overview	4
Administration Module	4
Web Service.....	7
Reader Module.....	7
Multi-vendor support.....	8
PDA Support	10

Introduction

PrimePDA is PDA-based data collection tool used primarily to directly “probe” the Utility’s Revenue Electric or Gas Meter at the utility service entrance. PrimePDA is ideal when remote communications to the meter are not available and/or when there is a need for the utility to perform a physical, on-site meter read (such as to detect suspected meter tampering or to correlate meter accuracy).

Although the PrimePDA application can be easily loaded onto and used with a laptop computer, because of PrimePDA’s flexible architecture it is no longer necessary for the utility associate to carry a laptop into the field.

With PrimePDA the utility can download meters data safely and quickly then send interval, register, and even log file data through any Internet connection, including a wi-fi or a cellular connection, to the utility’s central data collection center. Data downloaded from the probed devices (PrimePDA can probe system relays and other protective devices, too) can then be synchronized with other PrimeRead Energy Suite applications; inserting these data into the PrimeRead Energy Suite’s central database. No cradle or other direct connection to the computer is required to use PrimePDA.

PrimePDA also contains an integrated Route Management solution so that utility associates can remotely download their route assignments for the day and utility supervisors can monitor and actively direct the activity of their associates in the field.

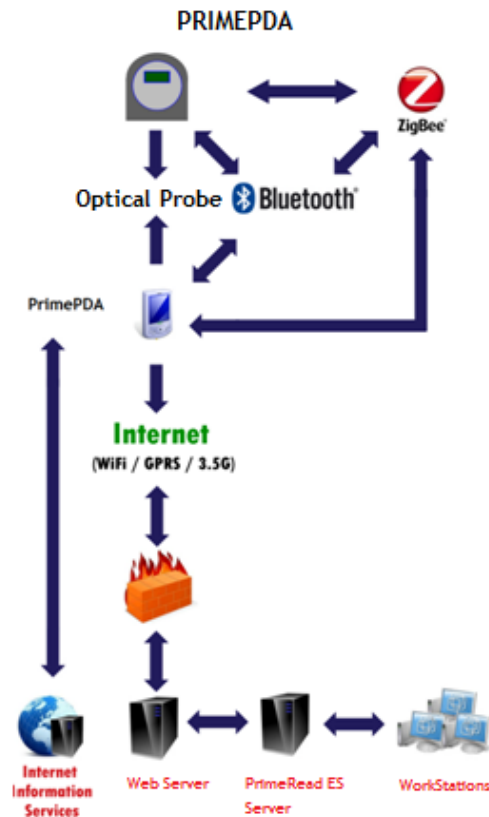
Further, the PrimePDA system is a multi-language solution that possesses the flexibility to be tailored to use the terminology that is most familiar to your utility’s personnel.

General Features

- Easy to use with an intuitive and customizable interface
- Downloads data via Bluetooth
- Multiple brands of optical probes are supported for multiple meter types
- Synchronize data in seconds with PrimeRead web services
- Fully integrated with PrimeRead Energy Suite software for collecting and analyzing data
- Fully integrated with the PrimeGuard alarm management software
- Fully integrated with the PrimeGrid revenue protection software
- Integrated route management software is included to manage associates assigned to the collection devices and to support utility business rules as to routes that must be followed

PrimePDA Overview

The following diagram illustrates the components involved in PrimePDA and how they interact.



PrimePDA consists of three functional modules:

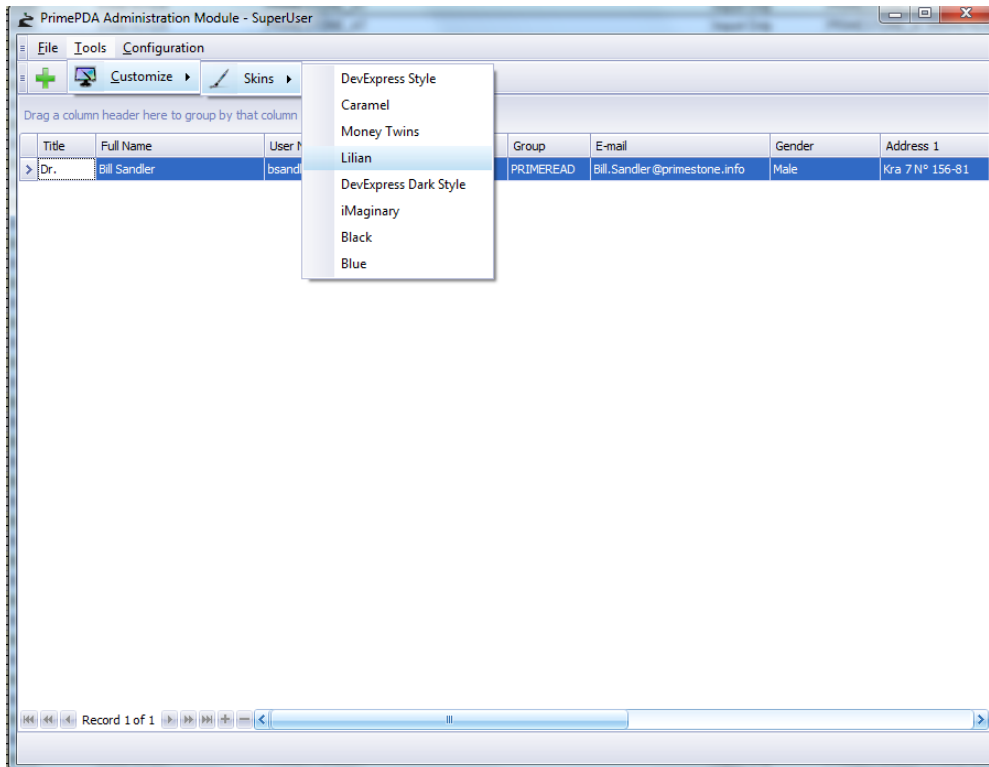
1. Administration Module - designed for system administrators and users to manage the key information in the system;
2. User Module - designed for use by the in-field associates who go into the field perform the meter reads;
3. Web service - The software/communications bridge that connects the central system and the in-field devices.

Administration Module

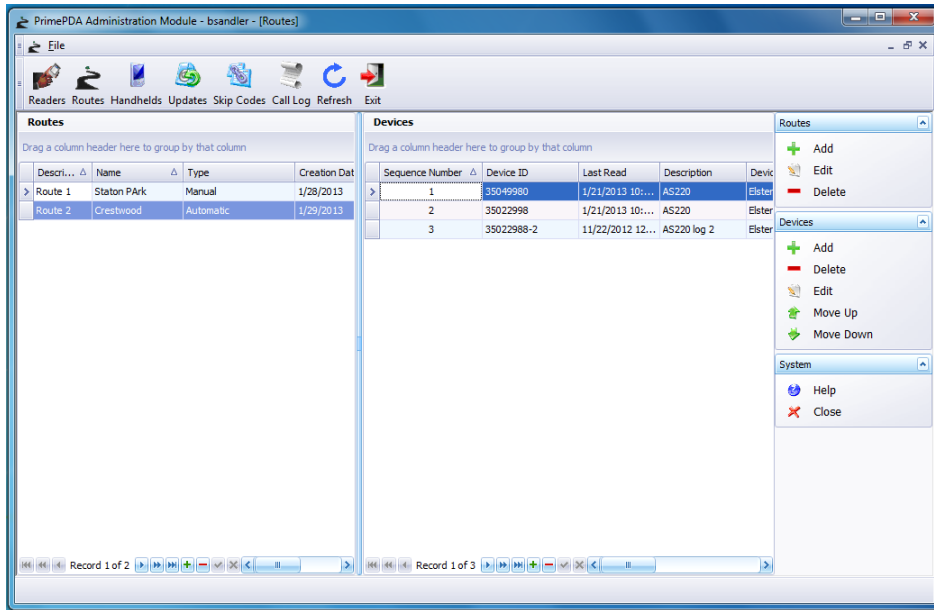
The Administration Module is a work environment that is managed by system administrators and power users to perform the following tasks:

- System Configuration: Contains tools for configuring the database connection, setting the language, and selecting the information fields you want to display for the meters.
- User Management: System administrators can create/edit/delete users and define their access level.

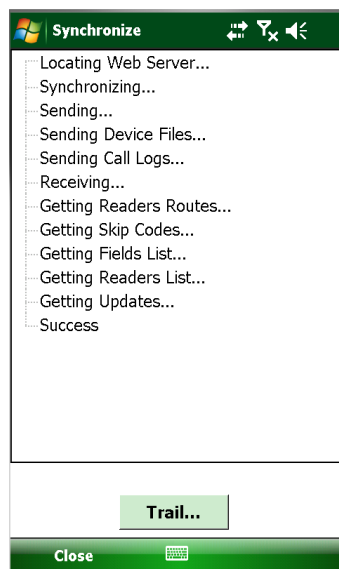
- Tools for customizing the look ‘n feel of the applications.



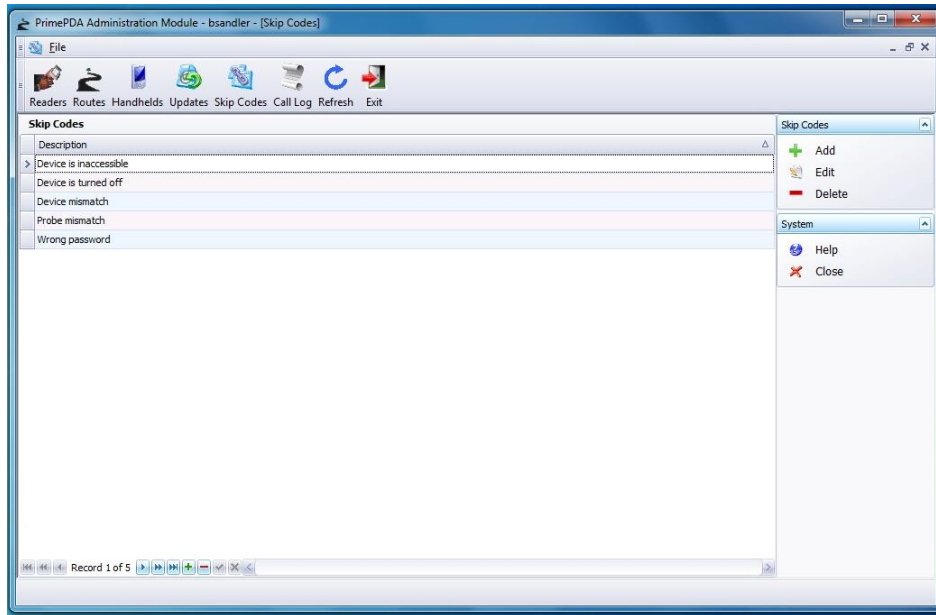
- User Management: A user may have one or more routes assigned by the system administrator with each route containing one or more meters. Handhelds can be tracked as they are assigned to one or more readers and as they are added or deleted from the system.
- Route Management: A route is a group of one or more meters assigned for an in-field read. The devices can be arranged in a sequence defined by an administrator and may be grouped by different fields, such as addresses or customers.



- **Live Manager/Administrator Update:** Keep up to date with the latest versions of the protocol files that are stored in PrimeRead Energy Suite. Readers with appropriate credentials can view protocol files without requiring access to the central repository.



- **Jump Code Management:** The system defines a Jump Code as the reason the meter failed its Remote Read (modem dead, meter disconnected, meter tamper, etc.) and/or the reason the meter could not be probed (meter missing, meter dead, etc.). When a User cannot complete a meter read they select a Jump code from a customizable, drop down list. Jump Codes may be added, edited, and deleted as required.



- **Call Log:** This application window logs all key information for all calls to the meters. Information such as timestamp, reader, route ID and the meter ID are securely logged. Call Log information is uploaded to the PDA as needed. Remote uploads are supported by PrimePDA so the User does not have to return to the utility to update their device.

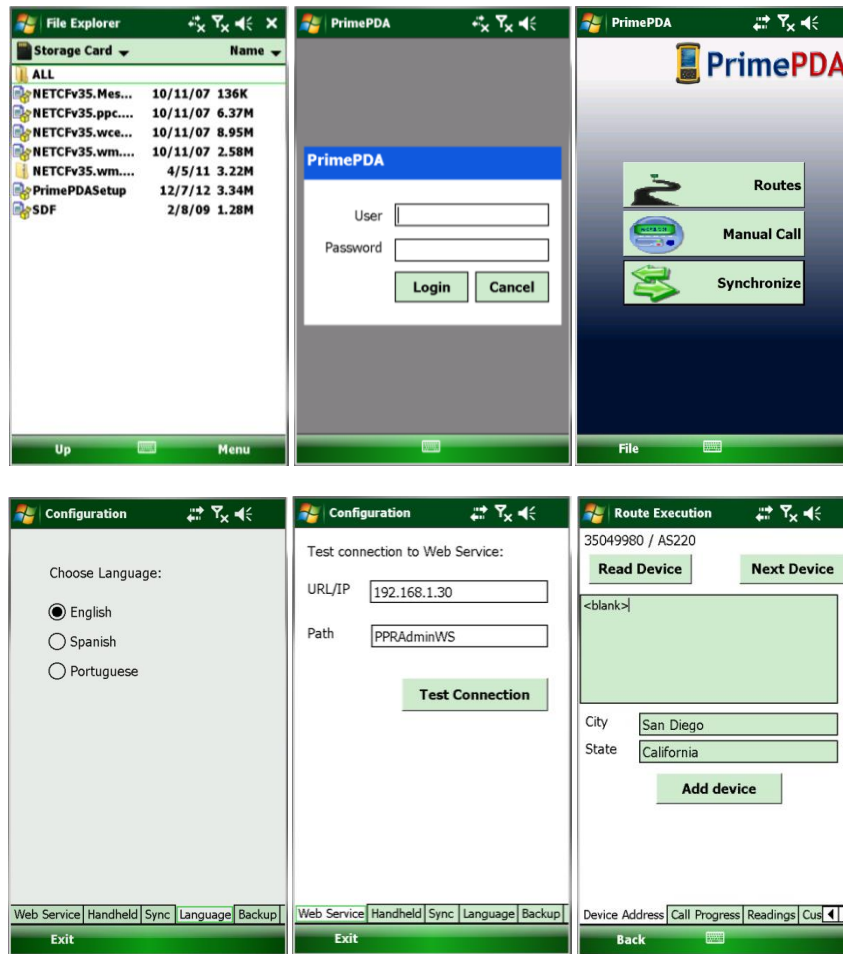
Web Service

This web service allows the PDA to connect to the PrimeRead Energy Suite database and exchange information such routes, reads and updates. This process is known as synchronization.

During the synchronization process the PDA downloads call results and device readings files while uploading updated information from the route that belongs to that particular reader; to include passwords and communications settings for the meter/device.

Reader Module

The Reader Module runs as a thin client on the handheld (PDA). The User employs Reader Module functionality to follow the assigned route and to download the required meter probe readings. Data downloaded from the device is stored locally until the PDA is synchronized with the central data collection system.



Multi-vendor support

PrimePDA supports the following meter models and tasks. The supported meter tasks are listed in the third column according to the following numbering:

1. Load profile readings
2. Registers readings
3. Events readings
4. Demand reset
5. Time synchronization

Vendor	Meter	Meter Tasks	Optical Probe	RS-232	Bluetooth
Circutor	CirWatt IEC 870-5-102	1,2,3	YES	YES	YES
Elster	Alpha 1	1,2,3,4,5	YES	NO	NO
	Alpha 2	1,2,3,4,5			
	AS1440	1,2,3,4,5	YES	YES	NO
	A1350	1,2,3,4,5	YES	YES	NO

	A1800	1,2,3,4	YES	YES	YES
	A3	1,2,3,4	YES	YES	YES
Itron	ACE5000	2,3	YES	YES	YES
	SL7000	1,2,3,4,5	YES	YES	YES
	SL7000 IEC 870-5-102	1,2,3	YES	YES	YES
	ACE6000	1,2,3,4,5	YES	YES	YES
	Quantum	1,2,3	YES	YES	YES
	Centron	1,2,3	YES	YES	YES
	Datastar	1,2,3	YES	YES	YES
	Fulcrum	1,2,3	YES	YES	YES
	Vectron	1,2,3	YES	YES	YES
	Sentinel	1,2,3,4,5	YES	YES	YES
General Electric	KV	1,2,3,4,5	YES	YES	YES
	KV2(KV2C, KV2C+, KV2C++)	1,2,3,4,5	YES	YES	YES
Elgama	LZQM	1,2,3,5	YES	YES	NO
	EPQS	1,2,3,5	YES	YES	NO
ELO	2113	1,2,3	YES	YES	YES
	2180SE	1,2,3	YES	YES	YES
	2180SP	1,2,3	YES	YES	YES
EMH	LZQJ XC	1,2,3,4,5	YES	YES	NO
Nansen	Spectrum	1,2,3	YES	YES	YES
Schneider Electric	ION 7330	1,2,3,4	YES	YES	YES
	ION 7350	1,2,3,4	YES	YES	YES
	ION 7500	1,2,3,4	YES	YES	YES
	ION 7550	1,2,3,4	YES	YES	YES
	ION 7600	1,2,3,4	YES	YES	YES
Schneider Electric	ION 7650	1,2,3,4	YES	YES	YES
	ION 7700	1,2,3,4	YES	YES	YES
	ION 7750	1,2,3,4	YES	YES	YES
	ION 8300	1,2,3,4	YES	YES	YES
	ION 8400	1,2,3,4	YES	YES	YES
	ION 8500	1,2,3,4	YES	YES	YES
	ION 8600	1,2,3,4	YES	YES	YES
	ION 8650	1,2,3,4	YES	YES	YES
Landis & Gyr	PSI	1,2,3,4	YES	YES	YES
	PSI Sup. Board	1,2,3,4	YES	YES	YES
	PSI 2410	1,2,3,4	YES	YES	YES
	PSI 2510	1,2,3,4	YES	YES	YES
	ANSI S4	1,2,3	YES	YES	YES
	RXRS4	1,2,3,4	YES	YES	YES
	RXS4	1,2,3,4	YES	YES	YES
	S4	1,2,3,4	YES	YES	YES
	AXRS4	1,2,3,4	YES	YES	YES
	Maxsys Elite	1,2,3,4	YES	YES	YES
	ZMD	1,2,3,4,5	YES	YES	YES
	ZMG IEC 870-5-102	1,2,3	YES	YES	YES
	ZMD IEC 870-5-102	1,2,3	YES	YES	YES
ZIV	ZIV 5CTD IEC 870-5-102	1,2,3	YES	YES	YES

*The inclusion and improvement of protocols' meters is subject to the collaboration of the meter manufacturers.

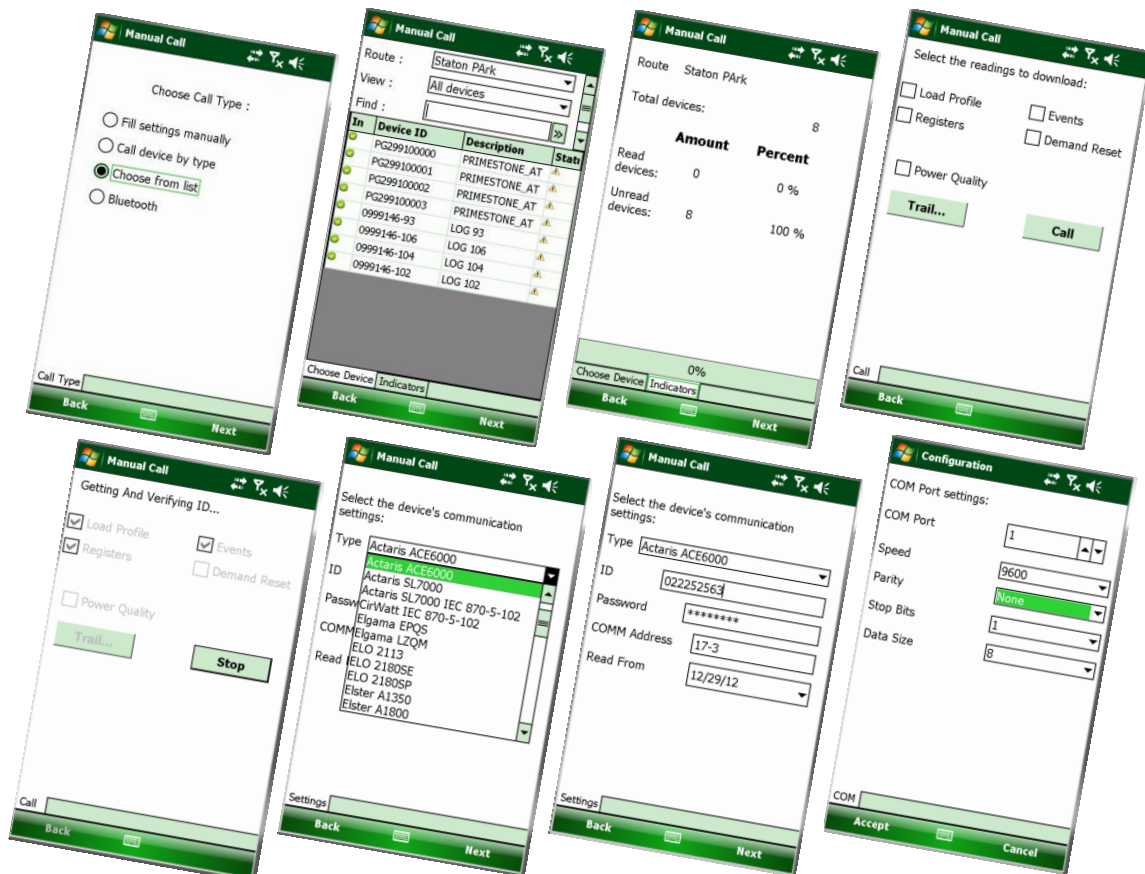
Additional Meter Protocols are constantly under development to meet the needs of PrimePDA's ever-growing market. Tasks can be performed as long as the meter supports the required feature and the proper passwords are provided.

PDA Support

PrimePDA supports any handheld regardless of the brand or model, provided it supports Windows Mobile 5.0, 5.5, 6.0 or 6.5. The handheld must have a native RS-232 port for connecting optical probes. This port can also be connected to a generic Bluetooth external module in order to have a greater reach as compared to an internal Bluetooth handheld.

The handheld (PDA) must support appropriate synchronization communications (WiFi, GPRS, 3.xG or 4G) otherwise physical connection to a computer network will be required for PDA synch.

The handheld may include additional devices (camera, GPS, barcode reader, etc.) without adversely affecting the feature set of PrimePDA.





CONTACT US

For more information visit <http://www.primestone.com/primepda.html>

© 2012 - PrimeStone S.A. - All rights reserved

This document is provided for informational purposes only and its contents are subjects to change without notice. This document may not be reproduced or forwarded in any form or by any means, electronic or mechanical, for any purpose without our prior written consent. PrimeStone is a registered trademark. Other names may be trademarks of their respective owners.