CipherLab
User Guide

Batch AG Utility for Linux

(for 8 Series Mobile Computers)

Version 1.01

CIPHERLAB CO., LTD.
Website: http://www.cipherlab.com

RELEASE NOTES

Version	Date	Notes
1.01	Oct. 23, 2018	▸ Modified: **System Setup** - commands for VCOM CDC added
		▸ New: **DLookup**
		▸ New: **Command Line Parameter**
		▸ New: **Exit Code**
1.00	May 22, 2015	First Release

CONTENTS

INTRODUCTION

The Batch AG utilities for Linux including Data Read and DLookup are designed to upload/download files from/to the 8 Series mobile computers.

The utilities are written using the Qt library by Qt (http://www.qt.io/) under the LGPL license. Make sure you are using the Qt 4.x library or later.

This manual serves to provide comprehensive understanding of Data Read and DLookup. We recommend that you read the document thoroughly before use and keep it at hand for quick reference.

Thank you for choosing CipherLab products!

SYSTEM SETUP

Please execute the following commands in Bash before running Data Read/DLookup properly for specific users.

1. su –

2. usermod –a –G dialout *$USER*

The "*$USER*" string in italics is the user account to use Data Read/DLookup. The picture below is an example for your reference.
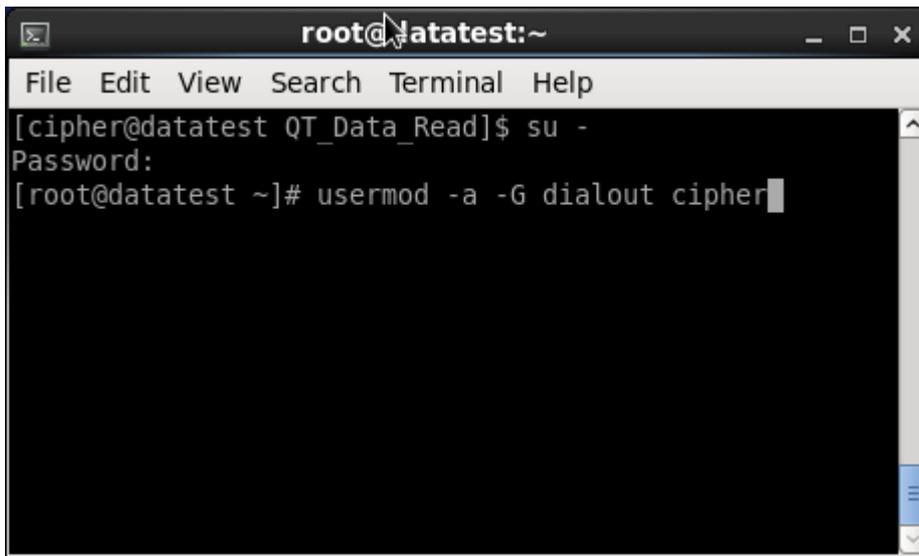
If you want to use USB VCOM CDC, please execute the following commands in Bash beforehand.

1. sudo echo 'ATTRS{idVendor}=="0745" ATTRS{idProduct}=="0001", ENV{ID_MM_DEVICE_IGNORE}="1"' > /etc/udev/rules.d/99-CL-CDC.rules

2. sudo reboot

DATA READ

Data Read is an upload utility running on the Linux platform. Users can receive data file(s) from the mobile computer via wired connection.

Launch Data Read, and then a dialog box will show up. Please configure the settings respectively.

Run Data Read

Settings in the dialog box as the picture illustrated above are described as follows:

1. File Properties:

▶ **File saving mode**:

Select this item to save the received data to the host computer's storage. The received data are saved to text files (.txt). Two saving modes are provided:
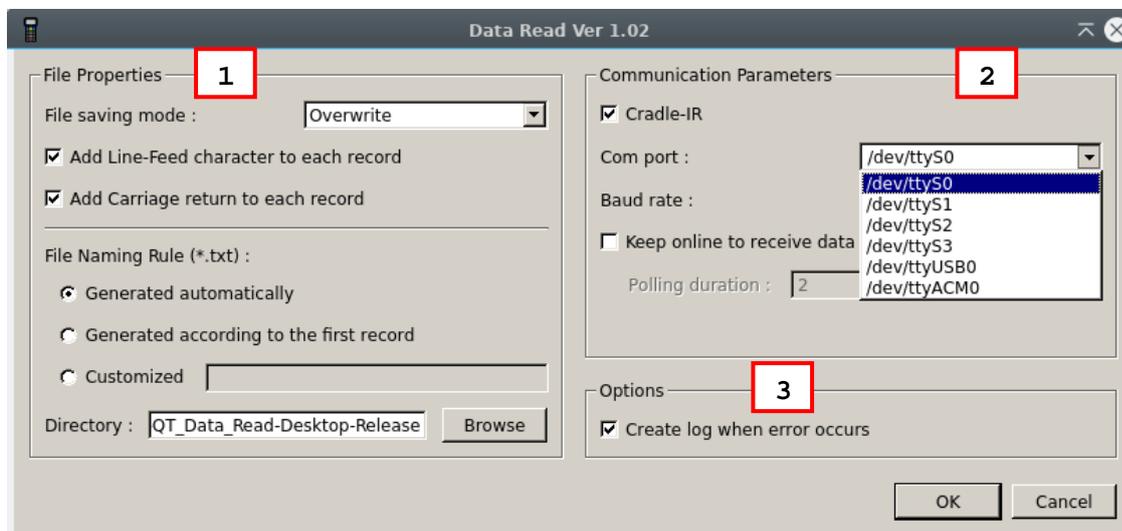
Save Mode	Description
Overwrite	If the file name you give is the same as of an existing file, the uploaded data will overwrite the original data. Otherwise, it will create a new file.
Append	If the file name you give is the same as of an existing file, the uploaded data will be appended to the original data. Otherwise, it will create a new file.

▶ **Add Line-Feed character to each record**:

Adds a line-feed character to each transaction entry. Disable/enable it if necessary.
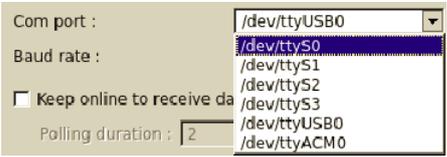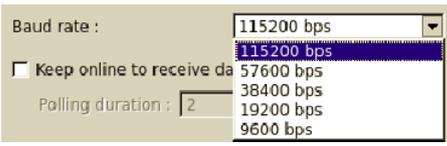
▶ **Add Carriage return to each record**:

Adds a carriage return control character to each transaction entry. Disable/enable it if necessary.

▶ **File saving mode** involves the setting of "File Name rule". The "File Name rule" setting features the following options:

Option	Function

Generated automatically	The uploaded data will be saved to the specified directory with a file name that is automatically generated based on the system date and time.
Generated according to the first record	The received data will be saved to a file named by its first record. ▶ For example, in Batch Application Generator you may design Form 1 to allow only one line for a specific file name and proceed to other forms for collecting data. Thus, the first record will be used to keep its file name. Depending on **File saving mode**, if the file name you give is the same as of an existing file, the uploaded data will overwrite or append to the original data.
Customized	If you select to customize own rule, type the file path to which the data file will be saved. Otherwise, click **Browse** to select which directory the data file is saved to.

2. **Communication Parameters**: Specify the upload interface.

Interface	Description
Cradle-IR	Cradle-IR interface is available on 8000 series mobile computers. Enable the checkbox and proceed to configure COM port and baud rate settings.
COM port	Click the drop-down menu to select COM port (ttyS0, ttyS1, ttyS2, ttyS3, ttyUSB0, and ttyACM0).
Baud rate	Click the drop-down menu to specify baud rate (115200, 57600, 38400, 19200, and 9600 bps).
Keep online to receive data automatically & Polling duration	With this checkbox enabled, your PC can keep active to receive data file(s) from the mobile computer. You can specify the time in seconds ranging from 1 to 999 for polling interval.

3. **Options**.

| Option	Description
Create a log when error occurs	Select it to set the Data Read to create a log file when one of the following comes up: ▶ Data Read fails to write data to the assigned file. ▶ Data Read fails to open the COM port. ▶ Data receiving time out. Normally the log file is accessible at the directory where the Data Read file is installed.

Click **OK** to start the uploading.

DLOOKUP

DLookup is a download utility running on the Linux platform. Users can use DLookup to download the lookup file to the mobile computer.

Launch DLookup, and then the dialog box will show up. Please configure the settings respectively.
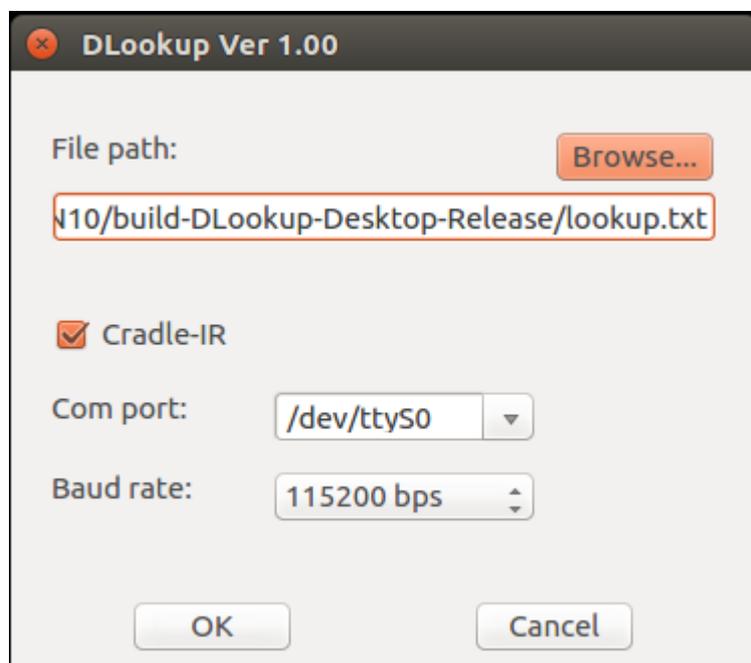
▶ **File path**: In the **File path** text field, type the file path indicating where the lookup file is located. Or you can click **Browse** to locate the lookup file you want to download.

▶ **Cradle-IR**: By default this checkbox is enabled; cradles and IR-Transceivers are required. Disable this checkbox to download the file via RS-232/USB VCOM/USB VCOM CDC.

▶ **Com port**: click the drop-down menu to select a COM port.

▶ **Baud rate**: click the drop-down menu to specify transmission baud rate.

After finishing the settings, click OK to start the download process.

COMMAND LINE PARAMETER

DATA READ

Short	Long	Description
-h	**--help**	Show this screen
-v	**--version**	Show version information
-a	**--auto-run**	Start transmission automatically. Only valid in GUI
-T	**--text-mode**	Show messages to the console.
-C	**--hide-complete-dialog**	Hide transmission complete dialog. Only valid in GUI.
-E	**--hide-error-dialog**	Hide error message dialog. Only valid in GUI
-l	**--add-line-feed=BOOL**	Add a line-feed character to each transaction entry. [default: true]
-n	**--add-carriage-return=BOOL**	Add a carriage return control character to each transaction entry [default: true]
-m	**--file-saving-mode=MODE**	Set saving mode of received data if the file already exists. MODE options can be 'overwrite' or 'append'. [default: overwrite]
-r	**--file-naming-rule=RULE**	Set naming rule for files that save received data. RULE options can be 'auto', 'first', 'custom'. [default: auto]
-d	**--output-file-directory=PATH**	Set output directory for files that save received data. [default: ./]
-o	**--output-file-name=FILE**	Set output file name of received data. Only valid when file-name-rule is set to custom. [default: data.TXT]
-c	**--use-cradleir=BOOL**	Cradle-IR interface is available on 8000 series mobile computers. [default: true]
-D	**--device=DEVICE**	Set file path of COM Port. [default: /dev/ttyS0]
-b	**--baudrate=SPEED**	Set baudrate of COM Port. SPEED options can be '115200', '57600', '38400', '19200', or '9600'. [default: 115200]
-k	**--keep-online=BOOL**	Keep active to receive data file(s) from the mobile computer. Only valid in GUI mode. [default: false]
-u	**--polling-duration=DURATION**	Set the time in seconds for polling interval of keeping online. DURATION value ranges from 1 to 999. [default: 2]
-g	**--write-error-log=BOOL**	Create a log when error occurs. [default: true]

DLOOKUP

Short	Long	Description
-h	--help	Show this screen
-v	--version	Show version information
-a	--auto-run	Start transmission automatically. Only valid in GUI
-T	--text-mode	Show messages to the console.
-C	--hide-complete-dialog	Hide transmission complete dialog. Only valid in GUI.
-E	--hide-error-dialog	Hide error message dialog. Only valid in GUI
-f	--file-path=PATH	Set the input file name. Full path is required if the file is not in the current working directory.
-c	--use-cradleir=BOOL	Cradle-IR interface is available on 8000 series mobile computers. [default: true]
-D	--device=DEVICE	Set file path of COM Port. [default: /dev/ttyS0]
-b	--baudrate=SPEED	Set baudrate of COM Port. SPEED options can be '115200', '57600', '38400', '19200', or '9600'. [default: 115200]

EXIT CODE

Exit Code	Description
0	Success
1	User Abort
16	Invalid file name or path
17	The target file is empty!
18	Failed to open the target file!
19	Failed to read the target file!
20	Failed to write the target file!
32	Cannot open the COM port!
33	Failed to initialize the COM port!
34	Connection timeout!
35	Failed to write to the COM port!
36	Failed to read the COM port!