pcProx[®] Command Line Utility

User Manual



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Thank you,

The RF IDeas Staff

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FCC ID: M9MPCPROXHUSB100 (HID USB model)

FCC ID: M9MPCPROXH100 (HID RS-232 model)

FCC ID: M9MPCPROXM101 (Indala model)

FCC ID: M9MRDR6981 (AWID)

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Attention: Changes to this reader system not expressly approved by RF IDeas will void the User's authority to operate the equipment.

Note: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This product complies with FCC OET Bulletin 65 radiation exposure limits set forth for an uncontrolled environment.

The reader may not recognize value cards in the presence of high RF fields. If the current reading is erratic, the user shall take the following step: Move the equipment from any known transmitters nearby. For more information contact Tech Support at 866.439.4884.



Introduction

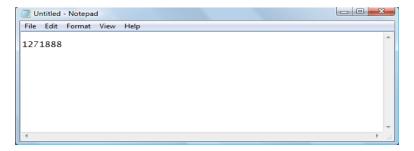
The simple command line interface, cmdpcProx.exe, is used to configure the pcProx card reader without the complexity of C/C++ .NET or VB.

BATCH files (.bat), CMD files (.CMD), and other scripting languages such as Python, PERL, Ruby, C/C++, and Visual Basic can be used to configure the device to:

- Enable or disable sending keystrokes to active window/application
- Control the color and functionality of the LED
- Save and restore device settings
- Read cards using GetActiveID function
- · Wait N seconds for active card data
- Provide an optional user defined time stamp string
- Clone device setup to a USB hub of devices

Command line parameters to the utility control the device and the card data. The data can display in the active window/application (standard output) or be redirected to a file. The device displays card data in two ways.

1. The device emulates a keyboard and types the keystrokes to the active window/application.



2. The device displays the card data as a string of 8 hexadecimal bytes.





Get Started

Verify C:Program Files\RF Ideas\Cmdpcprox is in your path.

This runs as a command line utility under Windows. The operating systems that support this utility are Windows 95, 98, 2000, XP, or Vista.

Usage

Run the cmdpcprox utility without parameters to display the Help usage. See the examples below.

	Help Commands		
Usage: switch=value			
cmdpcprox	-version		
cmdpcprox	-list		
cmdpcprox	-SetActDev=0127		
cmdpcprox	-vv verbose errors		
cmdpcprox	-HaltKbSend=[Yes No]		
cmdpcprox	-LedControl=[Auto] [Red] [Green] [Amber] [Off]		
cmdpcprox	-WriteConfig=SaveToFile [.hwg]		
cmdpcprox	-ReadConfig=ReadFromFile [.hwg]		
cmdpcprox	-Clone=ReadFromFile [.hwg]		
cmdpcprox	-GetActiveID[=%s] [-timestamp[="strftime"] [-oneid]		
cmdpcprox	cmdpcprox -WaitForgetActiveID=SECONDS (03600)		
dash	(-) or slash (/) may be before parameters. Switches are not case sensitive.		
Examples:			
cmdpcprox	-HaltKbSend=Y -LEDControl=OFF		
cmdpcprox	cmdpcprox /ReadConfig=Setup001 .hwg		
cmdpcprox	/writeCONFIG="file name with spaces"		
cmdpcprox	prox -getActiveId= [%s] -waitForGetActiveId=10		
cmdpcprox	-getactiveid="Card='%s'"		
cmdpcprox	-timestamp // decimal epoc time		
cmdpcprox	ndpcprox -timestamp= // defaults to "%a %m/%d/%Y %X"		
cmdpcprox	cmdpcprox -timestamp="%a %X"		



Examples

Let's start with a simple command.

Example #1: The device should send keystrokes only when Notepad is running. When Notepad is closed, no card data should be typed into the active window/application.

Notify users when the device is active using two switches:

- 1. -haltkbsend=y
- 2. -ledcontrol= off

Note: Set -haltkbsend=n initially so all keystrokes are sent via the device.

Enter the parameters:

cmdpcprox haltkbsend=n -ledcontrol=auto start /wait Notepad cmdpcprox -haltkbsend=y -ledcontrol=off

The first command sends keystrokes to the active window/application and sets the LED control to automatic, which by default is red when ready and green when active data is present. The color of the LED indicates if the device is actively sending to Notepad.

The second command opens Notepad. The /WAIT parameter stops the utility from performing the next command immediately.

The third command stops sending keystrokes and turns off the LED when Notepad is closed.

Example #2: The device must type keystrokes to a specific customer application. A log of the card data read and a time date stamp on each card read must be typed into the specific customer application. Here Notepad as the active application.

Note: Set haltkbsend=N so the keystrokes display in Notepad.

Enter the parameters:

cmdpcprox -GetActiveID= "Card Data: BEGIN %s END"

The utility displays card data when the LED is green. The device can be configured to wait between 1 and 3,600 seconds for card data. The following example configures the device to wait 10 seconds for data. The '%s' represents the card string.

cmdpcprox -GetActiveID= "Card Data: BEGIN %s END" -waitforGetActiveID= 10 -oneid



The utility prints: Card Data: BEGIN 87 BA 54 00 00 00 END

Note: Standard C printf formating may be used such as "%-9.9s"

Enter the parameters:

Start Notepad

cmdpcProx -haltkbsend=n -getactiveid= "Card read:%s\n" -oneid -waitforgetactiveid=10 -timestamp= "%X" >> logfile.txt

The device types the keystrokes into Notepad. The API function call returns the data.

- The \n in the parameter of the GetActiveID represents a newline (ASCII Line Feed 0x0a).
- The -oneid parameter causes the utility to wait until the card is inactive before exiting the utility.
- The time stamp always prints before the card data.

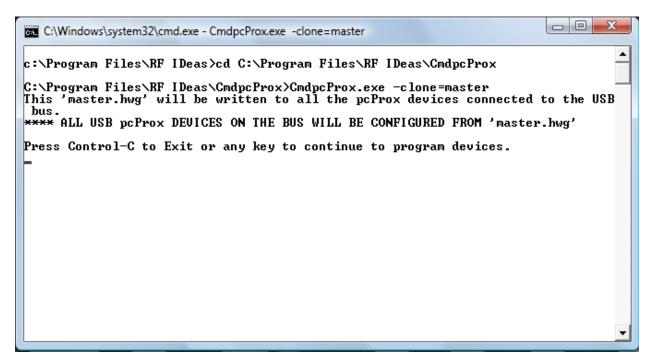
Configure Mulitple Devices

To program multiple devices with the same configuration:

- 1. Connect the master device that has the configuration to clone to the USB port.
- 2. Run *cmdpcprox -writeconfig=master*. The configuration is read and the *master*. *hwg* file is created.
- 3. Unplug the master device from the USB port.
- 4. Enter *cmdpcprox -clone= master* to clone multiple devices with this configuration.



When the utility finds 1 to 16 devices, they will be configured exactly as the master device. This same master.hwg file is saved to device's memory. The device LED flickers while the file is being written to flash memory.



Note: The utility will timeout after 60 seconds of no activity.

Press 'Control + C' to exit the cloning loop.

Escape Sequence

Several escape sequences can be used in the format strings of *GetActiveID*.

Appears in Format String	Represen ts	Hex Character
//	Back Slash \	0x5c
\a	Bell	0x07
\b	Back Space (control H)	0x08
\e	Escape	0x1b
\f	Form Feed	0x0c
\n	New Line or Line Feed	0x0a
\r	Carriage Return	0x0d
\t	Tab	0x09



Timestamp Format Parameters

Input	Output	Example
%a	Replaced by the locale's abbreviated weekday name	Tue
%A	Replaced by the locale's full weekday name	Monday
%b	Replaced by the locale's abbreviated month name	Feb
%B	Replaced by the locale's full month name	December
%с	%c Replaced by the locale's appropriate date and time The representation 20	
%C	Replaced by the century – the year divided by 100 and truncated as a decimal integer 00-99	19
%d	Replaced by the day of the month as a decimal number	10
%D	Equivalent to %m / %d / %y	02/10/09
%e	Replaced by the day of the month as a decimal number - a single digit is preceded by a space	1 to 31
%F	Equivalent to %Y - %m - %d - the ISO 8601:2000 standard date format	02/10/09
%g	Replaced by the last 2 digits of the week-based year as a decimal number	00 - 99
%G	Replaced by the week-based year (see below) as a decimal number	1977
%h	Equivalent to %b	Jan, Feb,
%H	Replaced by the hour (24-hour clock) as a decimal number	00 - 23
%I	Replaced by the hour (12-hour clock) as a decimal number	01/12/09
%ј	Replaced by the day of the year as a decimal number	00 - 366
%m	Replaced by the month as a decimal number	01,12
%M	Replaced by the minute as a decimal number	00,59
%n	Replaced by a <newline></newline>	
%р	Replaced by the locale's equivalent of either a.m. or p.m.	AM or PM
%r	Replaced by the time in a.m. and p.m. notation; in the POSIX locale this shall be equivalent to %I : %M : %S %p	09:10:11 PM for 21:10:11
%R	Replaced by the time in 24-hour notation (%H : %M)	00:43 for 12:43 AM
%S	Replaced by the second as a decimal number 00 - 60	00 through 59
% t	Replaced by a <tab></tab>	
%Т	Replaced by the time (%H : %M : %S)	21:10:11 for 09:10:11 PM



Input	Output	Example
%u	Replaced by the weekday as a decimal number	1 - 7 with 1 representing Monday
%U	Replaced by the week number of the year as a decimal number 00 - 53. The first Sunday of January is the first day of week 1; days in the new year before this are in week 0	33
%w	Replaced by the weekday as a decimal number with 0 representing Sunday 0 - 6	4
%V	Replaced by the week number of the year (Monday as the first day of the week) as a decimal number 01,53. If the week containing 1 January has 4 or more days in the new year, then it's considered week 1. Otherwise, it's the last week of the previous year, and the next week is week 1. Both January 4th and the first Thursday of January are always in week 1	01 through 53
%w	Replaced by the weekday as a decimal number 0,6, with 0 representing Sunday	0 (Sunday) to 6 (Saturday)
%W	Replaced by the week number of the year as a decimal number 00,53. The first Monday of January is the first day of week 1; days in the new year before this are in week 0	43
%x	Replaced by the locale's appropriate date representation. IEEE Std1 003.1-2001	02/10/09
%X	Replaced by the locale's appropriate time representation. IEEEStd1 003.1-2001	03:43:10 for 15:43:10
%Y	Replaced by the year as a decimal number (for example, 1997)	2010
% z	Replaced by the offset from UTC in the ISO 8601:2000 standard format (+hhmm or -hhmm), or by no characters if no timezone is determinable.	"-0430" means 4 hours 30 Greenwich)
% Z	Replaced by the timezone name or abbreviation, or by no bytes if no timezone information exists	CDT
%%	Replaced by %	%



Python Example

Since the utility returns standard output of the *GetActiveID* data string, many other scripting languages can also retrieve data from the device. This is a Python file example to read a card using cmdpcprox.

```
File Edit Format View Help

# Python example of reading a card using cmdpcprox

# import os,string,time

# Invoke utility and read its standard output of epoc timestamp and card data

# fd = os.popen('cmdpcprox -timestamp -getactiveid=":%s" -waitforgetactiveid=10')

s = fd.read()

fd.close()

# # Split time and card data field on colon since we used ":%s" on the switch

ss = s.split(':')

print s,ss

t = time.ctime(string.atol(ss[0]))

# show results

# print t,ss[1]
```



Command Line Parameters

Parameters may be preceded with a - or \ (Unix or Windows style). All names are not case sensitive, so all lower, all upper, or mixed case spelling may be used. Parameters are case preserved.

Parameter	Function
-version	Display program versions
-list	Show all devices found 0 127
-SetActDev=0	Set active device number 0 127 (default is device zero)
-haltkbsend=[Y N]	Enable or disable keystroke data
-getactiveid -getactiveid="Card is:%s"	Format card string
-oneid	When used with -getactiveid wait for card data to go inactive before allowing utility to exit
-waitforgetactiveid=NN	Number of seconds NN=03 600 waits this long for card data to be present
-timestamp	Prints seconds since epoch time 0=Jan 1st, 1970
-timestamp=	For convenience same as -timestanp="%a %m/%d/%Y %X"
-ledcontrol=[off red green orange auto]	Must be one of the five values. Auto is the factory default
-readconfig=MyFile[.hwg]	Reads ASCII Hog file and writes setting into device memory
-writeconfig=MyFile[.hwg]	Save device memory setting into ASCII file
-clone	Prompting, waiting, and writing setup file into all pcProx devices on USB bus