

WID Logger User's Manual



Revision 1.1

Wild Spy

Manufacturer

Wild Supply Distributor

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Revision History

Revision	Date	Comment
1	11 June	First revision.
	2013	
1.1	27 March	Updated required .NET framework version.
	2014	Updated section names.
		Specified software incompatibility with virtual machines.



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1 Initial Setup

1.1 Unpacking the logger

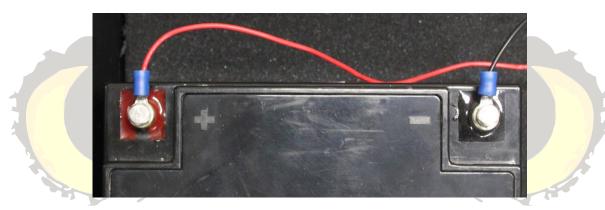
Please ensure that you have received the following for each logger)

- 1. Datalogger (pelican-like case and inside, polycarbonate case with logger electronics)
- 2. Antenna
- 3. Antenna base (for extending or repositioning antenna)
- 4. Battery bracket (steel angle, hex nut)

1.2 Attaching the battery

The Wild Spy WID Logger accepts an input voltage range of 12-15V. A 12V deep-cycle sealed lead acid/gel battery is recommended.

1. Attach the cable to the battery with the red wire to the positive (+) terminal, and the black wire to the negative (-) terminal. Firmly finger tighten the terminal screws.



2. Place the battery in enclosure.



3. Secure the battery with the spare bracket and nut.



- 4. STOP IMPORTANT. Double-check the orientation of the leads to the battery terminals prior to plugging the cable into the logger box.
- 5. Plug the free end of the battery cable into the logger box. **



1.3 Attaching the antenna

1. Attach the antenna by screwing it on to the gold, SMA connector located at the top of the logger case until tight (do not over tighten).

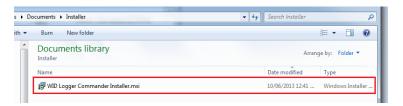


2. Alternatively, if the antenna requires repositioning, first attach the cable of the antenna base to the logger case, and then attach the antenna to the base.



1.4 Installing the PC Software

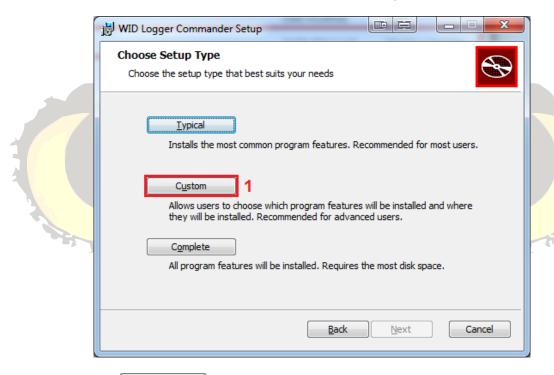
- 1. Make sure your computer meets the requirements specified in section 4.1 System Requirements.
- 2. Locate the installation file on your computer and open it.



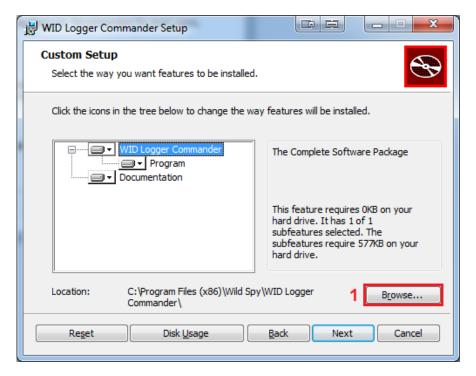
3. Follow the prompts in the installer.

If you wish to choose the install directory:

1. Select Custom (1) on the 'Choose Setup Type' screen.



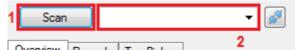
2. Click the Browse... button (1) on the next screen and use the dialog that appears to select the install directory.



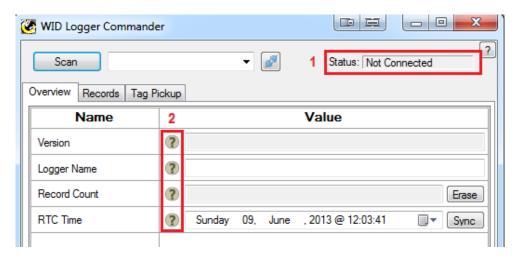
3. Follow the prompts in the installer to finish the installation.

1.5 Programming

- 1. Ensure the logger is plugged into a battery (see "1.2 Attaching the battery").
- 2. Connect the USB cable to a PC with the WID Logger Commander software loaded onto it.
- 3. Open the WID Logger Commander program on the PC.
- 4. Click Scan (1). Then choose the appropriate logger from the dropdown list (2) next to the scan button (note, if multiple loggers are plugged in, they will all be listed).



5. The 'Status' box (1) in the top right hand corner should change to Reading Values... while the configuration data is read from the logger and then to Connected (COM23) if the logger connects correctly. The grey icons next to each field (2) should turn to V's.



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6. The logger can be renamed if necessary by typing a new name in the 'Logger Name' field (1) and then clicking the Write button below. If the name was changed successfully, the icon (2) next to the name should turn to a . A ! icon means that the device name has been changed in the PC software but has not been written to the device.



7. STOP – IMPORTANT. In this step the logger will be erased of all records. This step is optional. Performing this step will erase ALL logs off the device. Once erased, THE LOGS ARE NOT RECOVERABLE. Only perform this step if you are sure that you wish to erase all records from the logger. Make sure you have downloaded and saved all important logs before performing this step. New loggers will come with some pre-loaded logs to demonstrate that they have been tested. It is recommended to leave these logs on the device as they take up a negligible amount of memory.

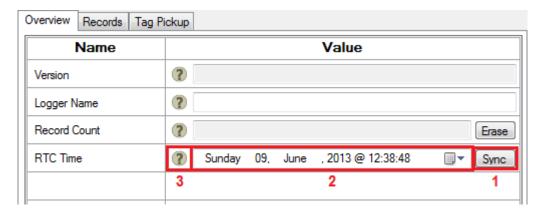
If however, you are using a logger which has been deployed previously and has many logs stored on it, follow the proceeding instructions to erase the logger's memory.

Click the button (1) next to 'Record Count'. A dialog will appear asking if you're sure you want to erase all records from the device. Select 'Yes' in this dialog. The process may take some time (at least 2 minutes so please be patient).

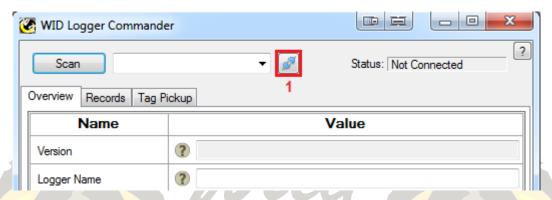


- 8. Set the logger time by doing one of the following:
 - Clicking the Sync button (1) next to the 'RTC Time' field. This will set the date and time to that of the computer you are programming the device on.
 - Manually entering a date and time into the 'RTC Time' input box (2) (the calendar button on the right hand side can be used to select a date; the time must be entered manually).

Once the time has been entered, click the window to write the time to the device. If the icon next to the field (3) turns to a then the time was successfully written to the device.



9. Click the (disconnect) (1) button in the PC software.



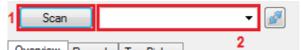
- 10. Disconnect the USB cable from the PC and neatly store it within the main enclosure.
- 11. The device will to continue to consume battery power while it is plugged in to the battery, however, please note that the date and time will be lost if the logger is unplugged. It is therefore recommended that the logger is programmed either in the field or as close to the deployment date as possible to prolong deployment time.

2 Testing

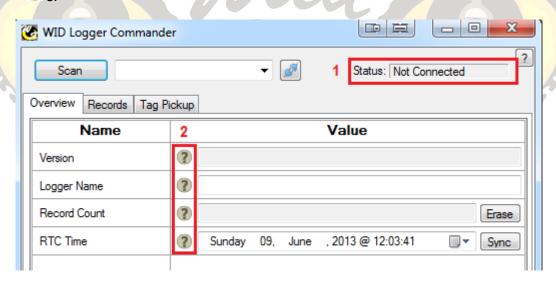
2.1 Testing a WID Tag with the Logger

The Wild Spy WID Logger can be used to test whether a WID Tag is working correctly or to test for reception dead-spots in the field. A computer capable of running the WID Logger Commander software is required to read out the information from the device.

- 1. Ensure the logger is plugged into a battery (see "1.2 Attaching the battery").
- 2. Ensure the antenna is attached to the logger case.
- 3. Connect the USB cable to a PC with the WID Logger Commander software loaded onto it
- 4. Open the WID Logger Commander program on the PC.
- 5. Click Scan (1). Then choose the appropriate logger from the dropdown list (2) next to the scan button (note, if multiple loggers are plugged in, they will all be listed).



6. The 'Status' box (1) in the top right hand corner should change to Reading Values... while the configuration data is read from the logger and then to Connected (COM23) if the logger connects correctly. The grey icons next to each field (2) should turn to V's.



7. Click on the Tag Pickup (1) page. This page shows the tags as they are detected.



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- 8. The button (1) in the bottom left hand corner allows the print mode to be chosen. The options are:
 - a. Off Tag pickups are not printed at all. Ensure that the device is returned to this mode when you are finished testing. This will reduce the power consumption of the device while in the field.
 - b. Tag Only The tag number and RSSI values are printed. One line is printed for each pickup.

RX ID: 0xABCD1234, RSSI: -72

c. Tag and Time – The tag number, RSSI value, date and time of the pickup are printed across two lines.

RX ID: 0xABCD1234, RSSI: -72 01-06-13 20:25:02



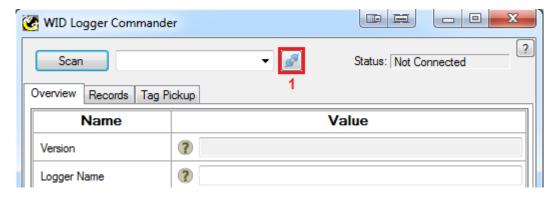
- 9. Once the button is set to something other than 'Off', information about detected WID tags will be written to the screen on each detection event.
- 10. The button (2 above) on the bottom right will clear the detection events from the screen.
- 11. When finished testing, return the logger into 'Print Tags: Off' mode by clicking the

 Print Tags: button until it reads

 button until it reads

 This ensures that the logger is in the lowest power mode while in the field and that you get the longest deployment time possible.
- 12. Click the (disconnect) (1) button in the PC software.

Clear

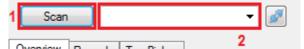


13. Disconnect the USB cable from the PC and neatly store it within the main enclosure.

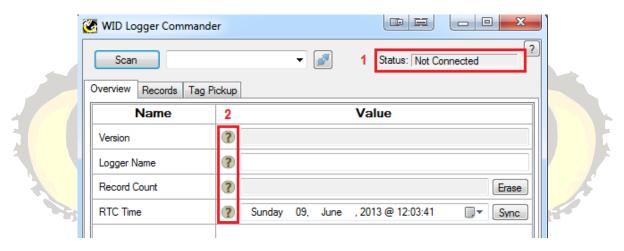
3 Post-Deployment

3.1 Reading Data from the Logger

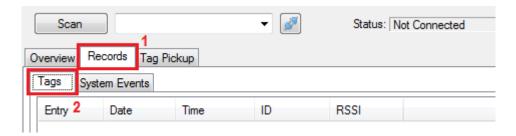
- 1. Ensure the logger is plugged into a battery (see "1.2 Attaching the battery").
- 2. Connect the USB cable to a computer with the PC software loaded onto it.
- 3. Open the WID Logger Commander program on the PC.
- 4. Click Scan (1). Then choose the appropriate logger from the dropdown list (2) next to the scan button (note, if multiple loggers are plugged in, they will all be listed).



5. The 'Status' box (1) in the top right hand corner should change to Reading Values... while the configuration data is read from the logger and then to Connected (COM23) if the logger connects correctly. The grey cons next to each field (2) should turn to various.

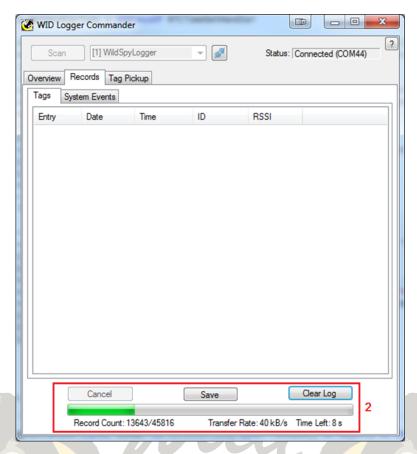


6. Click on the Records page (1) and on the page, make sure that the page (2) is selected.

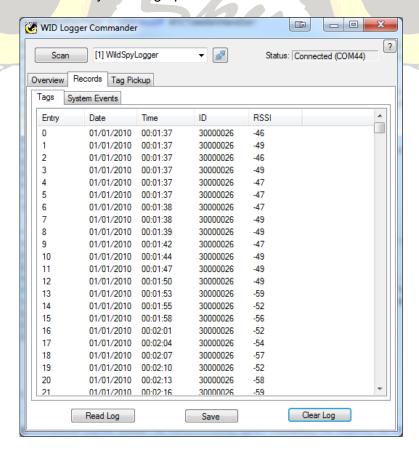


7. Click the Read Log button (1) and the software will start reading the logs from the device (2 next page). This may take some time so a progress bar is shown along with a remaining time estimate.





8. Once the download is finished, the logs will be shown in the list on that page. You can view the full list by scrolling up and down.



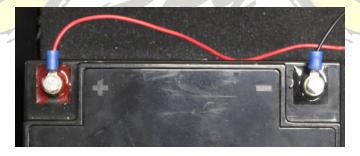
- 9. The System Events page shows the times and dates of all system events.
- 10. To save a log (be it Tags or System Events), first make sure that page is visible. For example, if you want to save Tags, make sure the Tags page is visible. Next, click the Save button. A dialog box will appear asking where you want to save the file and what you want to call it. By default, the name is set to the current date, followed by the logger's name, followed by the type of log being saved. Click the Save button in the dialog to save the file.

Note: files are saved in 'csv' format as a comma separated list. They can be opened in a spread sheet program such as Microsoft Excel, or in any text editor.

- 11. Click the [47] (disconnect) button in the WID Logger Commander software.
- 12. Disconnect the USB cable from the PC and neatly store it within the enclosure.

3.2 Replacing the battery

- 1. Unplug the battery cable from the logger box
- 2. Unscrew the battery terminals and remove the cable lugs.
- 3. STOP IMPORTANT. Ensure the logger enclosure is lying flat on the ground so that the battery cannot fall out of the box once unsecured!
- 4. Unsecure the battery (i.e. remove the bracket and nut).
- 5. Remove the battery. Be careful, it's heavy!
- 6. Place a new battery in the logger enclosure and secure it with the bracket and nut.
- 7. Attach the battery cable to the battery with the red wire to the positive (+) terminal, and the black wire to the negative (-) terminal. Firmly finger tighten the terminal screws.



- 8. Place the battery in enclosure.
- 9. STOP IMPORTANT. Double-check the cable is correctly connected to the battery prior to plugging the cable into the logger box.
- 10. Plug the free end of battery cable into the logger box.
- 11. Connect the logger to a computer with the WID Logger Commander software loaded onto it. Note: If there are a lot of records on the logger there may be a (up to 20 second) delay while it starts up. The logger won't be detectable by the PC software during this time.
- 12. Use the WID Logger Commander software (WID Logger Commander) to program the logger time. See steps 3, 4 and 7 of "1.5 Programming" for how to do this.
- 13. Click the [42] (disconnect) button in the WID Logger Commander software.
- 14. Disconnect the USB cable from the PC and neatly store it within the enclosure.

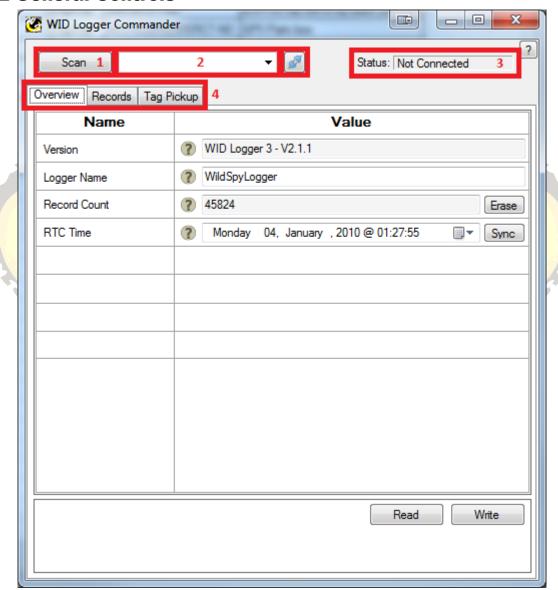
4 PC Software Overview

The WID Logger Commander PC Software can be used to program and test the Wild Spy WID Logger.

4.1 System Requirements

- Windows based PC running Windows XP or Windows 7 (compatible with 32 and 64 bit versions of each). Virtual Machines are not supported.
- At least one spare USB 2.0 port
- Microsoft .NET framework v4.0 or higher installed.

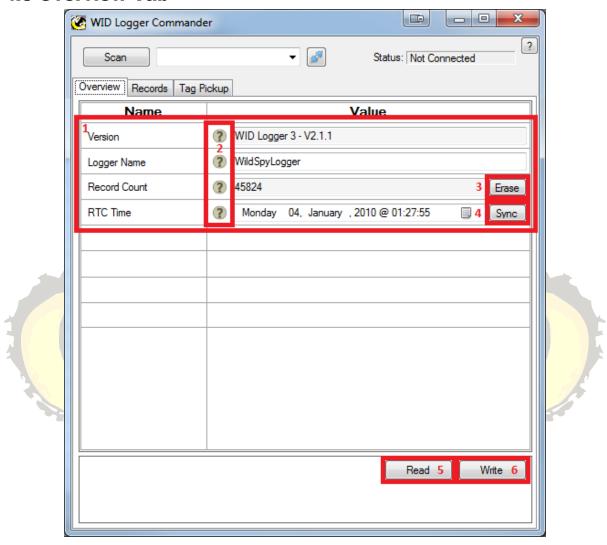
4.2 General Controls



- 1 Scan Button: Scans the computer USB ports for attached loggers.
- 2 Logger Select Dropdown-List: Displays all of the loggers attached to the computer once the 'Scan' button (1) has been clicked.

- 3 Status Box: Shows information about the status of the PC software, for example it may say "Not Connected", "Connected" or "Programming".
- 4 Tab Selector: Allows selection of the tab page for displaying different information in the software.

4.3 Overview Tab

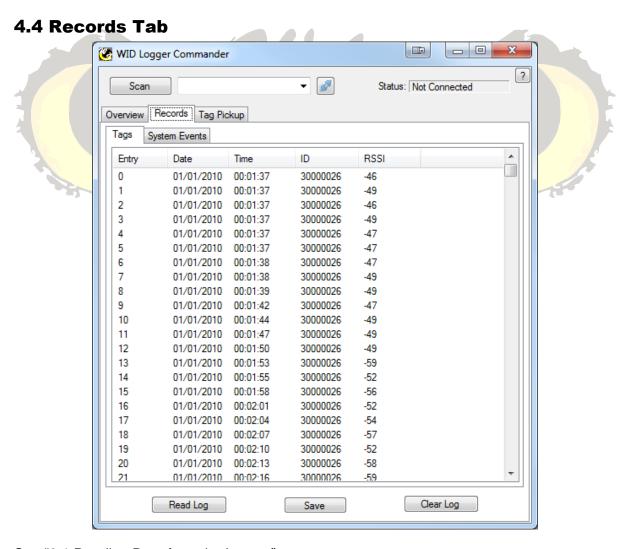


- 1 Device Fields: Shows information about the device. The "Logger Name" and "RTC Time" fields can be modified while the "Version" and "Record Count" fields are read-only.
- 2 Field Status Indicators: Shows information about the status of its corresponding field. The field status indicator can be one of four values:

?	Unknown – No logger is connected or the value of the field is unknown.
\checkmark	Synchronised – The field's value in the software is the same as the value
	on the logger.
	Modified – The field's value has been changed in the software and no
•	longer reflects the value on the logger. (Click "Write" (6) to write all field
	values to the logger.)
X	Error – There was an error reading the field's value from, or writing the
	field's value to the logger.

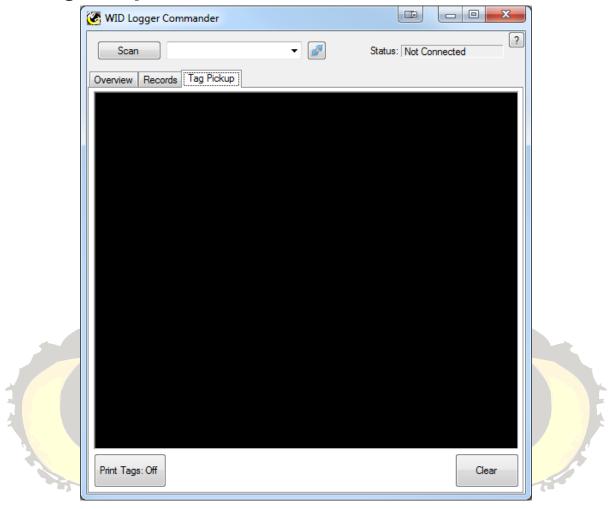
- 3 Erase Button: Erases all records from the logger. Asks for conformation first. <u>THIS</u> CANNOT BE UNDONE.
- 4 Time Sync Button: Synchronises the "RTC Time" field to the computer's system time. It does not actually write the time to the logger. Click the "Write" (6) button to write the time to the logger.
- 5 Read Button: Reads all fields on the "Overview" tab from the logger. Each field icon should turn to a \bigcirc once the fields have been read.
- 6 Write Button: Writes all modified fields on the "Overview" tab to the logger. Each modified field icon (\P) should turn to a \P .

To modify a field first make sure the field value is current (should have a next to it). Change the value of the field by modifying its edit box, the icon should change to a lastly, click the "Write" button (6) and the icon should change to a again if correctly written to the device.



See "3.1 Reading Data from the Logger".

4.5 Tag Pickup Tab



See "2.1 Testing a WID Tag with the Logger".