Wildlife Computers Data Portal & Tag Agent User Guide

This user guide will give you all the essential information needed for interacting with the Wildlife Computers Data Portal and programming tags with the Tag Agent.



Table of Contents

Introduction	3
Creating a Portal Account and Linking your Argos Account	3
Tag Agent	4
Connecting to a Tag	6
Save Settings to PDF	7
Disconnecting from a Tag	8
Tag Agent in Offline Mode	8
Wildlife Computers Portal	9
My Tags	10
My Data	12
Navigating the Data Portal Interface	
My Motes	26
Troubleshooting	28
Contacting Wildlife Computers	



Introduction

When it comes to research, the proof is in the data. Data are the lifeblood of what we do with our tags. To make it easier to gather, study, and manage data, Wildlife Computers developed simplified software.

Tag Agent is a software program used to interact with any Wildlife Computers UT-based tags including SPOT and Pop-up tags. Tag Agent allows users to perform administrative tag tasks like changing states or selecting settings.

The **Wildlife Computers Data Portal** (the Portal) is a custom website and online repository for storing and managing scientific data from Wildlife Computers tags.

The Portal and Tag Agent are quite different; however, they are linked through a common username and password. This guide explains the functionality of each in more detail.

Creating a Portal Account and Linking your Argos Account

This section will step you through creating a new Wildlife Computers Data Portal account and linking your Argos username and password to that account. To fully understand the functionality of the Portal, please read the rest of the user guide.

Creating a New Portal Account

- 1. Navigate to <u>wildlifecomputers.com</u>, mouse-over the Portal tab, and select either My Tags or My Data from the dropdown list.
- 2. Click Create Account and complete the form. Passwords must contain at least one nonalphanumeric character.
- 3. Shortly after hitting the Create button, you should receive a message on screen stating your account has been created.
- 4. Log in using your email address and password used above.

Linking Your Argos Username and Password to Your Portal Account

- 1. To register your Argos account, click on the My Data tab, then click on the Link Argos Account button at the top of the page.
- 2. Click on Add Account button and fill in your Argos username and password for your Argos program and click Add.
- 3. Your Portal account is now registered and linked to seamlessly download and display data from deployed Wildlife Computers tags received via Argos.
- 4. Once a tag is transmitting and data are received, each individual tag will be identified by its serial number and PTT Argos ID number as a separate row in the Portal.
- 5. To access the data, click on the My Data tab at the top, click the check-box on the left-hand side of the row, and then click the blue Download button.



Tag Agent

Tag Agent is software enabling researchers to administer tag settings directly into tags using a computer and USB connection.



Tag Agent is used with SPOT5, SPOT6, SPOT6-F, mrPAT, DSA, PTR, Bathygraph, MiniPAT, and sPAT tags. Users of SPLASH, TDR10 or TDR-Mk9 tags must use the respective HOST programs to administer changes.

Downloading Tag Agent Software

To download Tag Agent, navigate to <u>wildlifecomputers.com</u>. In the top right corner, click on the Portal tab and select Tag Agent from the dropdown list. Alternatively, on the homepage, click on the Tag Agent Download button. Once downloaded, click the setup file to install Tag Agent. A shortcut will appear on your desktop and by default the program will be saved in the location C:\....Start Menu\Programs\Wildlife Computers.

USB Communications Cable Driver

If the computer has not previously configured a Wildlife Computers tag using a USB communications cable, then the USB communications driver must be installed. The driver is available at <u>wildlifecomputers.com/support/downloads/</u> under Miscellaneous, or directly from the USB driver's download link on the Tag Agent Download window as shown in the screenshot below. You will need to select either the 64-bit or 32-bit driver according to which version of Windows you are using.



ag Agent only works on Windows XP or higher.	
ag Agent administers the following tags:	
athyGraph, DSA, mrPAT, PTR, SPOT5, SPOT6, SPOT6-F, MiniPAT	
he following are required:	
Windows XP or Higher Windows Installer 3.1 Microsoft .NET Framework 4 Client Profile (
ly installing Tag Agent, you agree to the following terms and conditions:	
General Terms Agreement	-
This agreement relates to software provided free of charge for the purposes of managing Wildlife Computer tags ("Software").	
1. General Terms Agreement	
 By using the Software of Wildlife Computers in any way, including using, transmitting, downloading or uploading the Software, you agree to these General Terms. 	Ŧ
DOWNLOAD	

Once the download of Tag Agent is complete and the USB driver installed, open the program. A request for your user credentials will be displayed. If you have already registered through the Wildlife Computers Data Portal, then enter the same credentials and hit save. If you have not created a Portal account, then follow the steps to create a new Portal account in the <u>Creating a Portal Account and Linking your Argos Account</u> section above.

Tag Agent User (Credentials
Email Address:	kevinlay@wildlifecomputers.com
Password:	••••••
	Cancel Save
-	

Tag Agent software will open and be displayed on your computer as below. The Internet connection status is displayed at the bottom of the Tag Agent home screen.





Connecting to a Tag

Plug the USB communications cable into the computer and connect it to the tag, carefully observing the orientation of the connector pins. The home page will display with Tag Status as Interactive in the lower left with tag information and sensor readings visible. If tag status remains Disconnected, swipe the magnet supplied near the communication port on the tag to view the interactive screen.

If the tag is new, or has previously been programmed by another user, a pop-up box will appear asking if you wish to take ownership of the tag. Becoming a tag administrator gives you the authority to select and save new settings.

If tag settings have been updated through the Portal using My Tags, a pop-up box will appear on opening Tag Agent advising that changes have been made and the tag's settings need to be updated.

The Administer Tag tab allows you to modify the settings of the connected tag. Click the Send Changes button on the left of the screen to activate these changes.

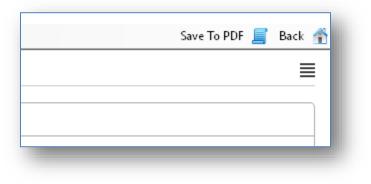
The Download WCH tab shows a summary of data on the tag and gives you the option of downloading the archive and set-up info onto your local machine.



File Help			
Check For Updates	71† Administer Tag	Download WCH	Advanced Disconnect Tag
Serial No: 10P0553		Tag Sensors	Depth
Tag Type: MiniPAT		/	1 meter(s) (Raw 82)
Argos Dec/Hex/Uplink: 39332 - 1945A4C - 1	1617.76		Ambient Temp. 23.1°C
Tag Clock: 16/Mar/2016 18:19:			Internal Temp. 24.3°C
Tag Name: N/A	.22	Λ	Light Level 163
Tag Data: Tagware Version: 2.	4c		Light Level 1 625
Argos Tx Count: 15			Light Level 2 488
			Wet/Dry 255
			Batt. Voltage 3.76v
ag Status: Interactiv	e ~ USB Status:	Connected ~ Clou	d Status: Connected

Save Settings to PDF

To save a copy of your settings in a separate file, click on Save to PDF in the top right of the Administer Tag section of Tag Agent. This will save a PDF to the computer. Send changes to the tag prior to saving the settings.





Disconnecting from a Tag

To disconnect from a tag, use the Disconnect Tag button on the top right navigation bar. Do not simply unplug the USB communications cable. There are three disconnect options *(exception is mrPATs which have Auto Start and Stop)*:

- 1. Auto Start puts the tag in standby. A tag in auto start mode can be activated by sea water submersion or by magnet swipe protocol.
- 2. Start mode activates the tag. In Start, the tag will deploy and transmit. If it is a pop-up tag, data collection is running and the tag begins monitoring for its set release condition
- 3. Stop mode puts the tag into deep shutdown for storage. The tag will remain unresponsive unless connected to Tag Agent.

Once disconnected, a magnet swipe sequence can be used to change the state of the tag between Auto Start and Start modes. This function varies per tag type, so refer to the tag specific user guides for additional details. Tags in Stop mode need to be connected to Tag Agent through the USB cable to awaken the tag.

Tag Agent in Offline Mode

Before programming can be done offline, Tag Agent must be downloaded and opened with valid credentials entered while connected to the Internet. Credentials are your Wildlife Computers Data Portal login username and password.

As long as the software has been opened once and credentials entered, programming offline is possible. To program settings, select Administer Tag from Tag Agent's top navigation bar, configure the tag, and click Send Changes. A dialog box will confirm when settings are loaded into the tag.

The next time an Internet connection is established, and Tag Agent software is open, the historical record will be updated in Tag Portal.

Online templates are not accessible when working offline. To program a group of tags with the same settings when working without an Internet connection, you need to create a local template. A file of the selected tag settings will be saved onto your local machine. Local templates can be created and applied in the Template Manager. While in the Administer Tag view, expose the Template Manager with the icon in the upper right corner of the screen.



Wildlife Computers Data Portal

The Wildlife Computers Data Portal (the Portal) enables users to more easily explore and manage key scientific data. Unlike other telemetry data repositories that hold archives for a limited period, the Portal maintains data indefinitely.

The Portal is a secure, cloud-based program that enables researchers to:

- 1. Conveniently configure tag settings online—My Tags.
- 2. Reliably access, manage, store, and share data online—My Data.
- 3. Retrieve data from unattended ground-based receiving stations—My Motes.

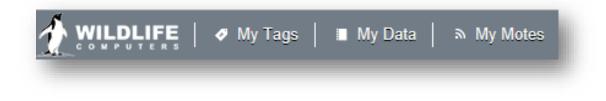
To access the Portal, navigate to <u>wildlifecomputers.com</u>. In the top right corner, mouse-over the Portal tab and select either My Tags or My Data from the dropdown list. Alternatively, in the center of the homepage click on either the Manage Tags or Manage Data buttons to access the Portal sign-in screen.

Sign In or Create an Account You may sign in using your existing account or you can create a new account by selecting "Create Account" Wy e-mail address is: ammel address Wy password is: password Log In Forgot your password?	Plus Andrexe, Alaska Soutile Center
Create account	CRuss Andrews, Adaska Seathe Center



First time users need to create an account by clicking the Create Account tab and entering their details (see <u>Creating a Portal Account and Linking your Argos Account</u>).

Upon signing in, the Portal will either display the My Tags or My Data landing page depending on which option you selected. At any time, you can toggle between landing pages by simply clicking the required tab on the top navigation bar.



My Tags

My Tags is the interface that allows users to remotely select their tag settings. Settings are chosen online without the need for the physical tag. This enables project coordinators to review and select settings for their associates in the field. A record is kept of all proposed and chosen parameters, and the Portal automatically pairs the selected settings with corresponding incoming data.

Entering the My Tags interface will reveal a list of tags over which you have administrative powers.

Only tags that have been administered in the Wildlife Computers Data Portal via Tag Agent will appear in the My Tags list. SPLASH10 tags administered via Mk10 Host software will not appear in My Tags. However, Argos data from SPLASH10 tags will still flow into My Data once Argos credentials are linked.

For each tag, a line item is created displaying the fields Administrators, Tag Type, Serial Number, PTT ID and Tagware version. The Name field is a custom identifier. Giving a friendly name to your tags can make it easier to search the tag list using the Filter.

Filter: Filter by Administrator(s), Tag Type, Serial Number, P	TT Id, or N:			s	howing 851 to 893 of 893 entries	Previous
Administrator(s)	Тад Туре 🗘	Serial Number	PTT Id 0	Tagware Version	≎ Name d	
roger@wildlifecomputers.com	SPOT6-F	14U0040	49032	1.00a-2935	Test	× 6 💌
roger@wildlifecomputers.com	SPOT6-F	14U0042	49034	1.00a-2935		$\overline{}$
roger@wildlifecomputers.com	SPOT6-F	14U0043	49031	1.00a-2935		2.0
roger@wildlifecomputers.com	SPOT6-F	14U0046	49035	1.00a-2935		2.0
rowan@wildlifecomputers.com	SPOT5	10S1770	57069	5.03d		10

Any tag administrator can remotely prepare a configuration setting to be loaded into a tag and propose the changes. When the Propose Changes tab is hit, a red signal flag will appear on the right-



hand side of that row to alert users that a tag setting change has been proposed but is still not physically administered to the tag. Whoever is in possession of the tag must insert the USB communications cable into the communications port to update the new settings using Tag Agent.

Tag Settings

Clicking on the blue serial number link allows you to view and change that tag's settings. The data collection and transmission options available vary by tag type. The example below shows a SPOT6 tag.

Tag	Information
Dat	a Product Settings
Tra	nsmission Settings
	Transmission Modes Transmission Parameters
	Argos Uplink Mask 🟮
	00h 01h 02h 03h 04h 05h 06h 07h 08h 09h 10h 11h 12h 13h 14h 15h 16h 17h 18h 19h 20h 21h 22h 23h 🗙 🔊 🔊 🔊 🔊 🖉 🔆 🗙
	$\color{red}{\times} \times \times$
	Argos Uplink Settings
	Minimum uplink interval - At Sea: 25 seconds. Hauled Out: 90 seconds.
	Start uplinks after 0.00 • seconds of being dry.
	Uplinks per message: 10 (Please consult technical support before making changes to this parameter)
1	

Once you have chosen your settings, click the Propose Changes tab on the bottom left. This will save these settings to the cloud and initiate the red flag discussed above. The next time the tag is connected to Tag Agent through the USB communications cable, a pop-up box will alert you to load the newly selected settings into the tag.



Templates

 Tag Information 				
Tag Details	Argos Settings	Wet/Dry Sensor Settings	Magnet Settings	
Administrator Tagware Ver Tag Type: M Tag Name: 1 Tag Log: 2	sion: 2.4k niPAT emplate Tag			
 Tag Release Sec 	luence 🕕			
 Data Product Set 	tings			
	ttings			

Templates can be created to apply the same settings to multiple tags. Select the quadruple line icon in the upper right corner of the screen to reveal the Template Manager. You have the option of creating an online template or a local template file of the current settings selected. Local templates are used when no Internet connection is available.

Configuration History

The tag configuration history can be accessed by the arrow button on the left-hand sidebar menu below the Wildlife Computers logo. Clicking the arrow will expand the tag Config History, and once viewed, clicking on the arrow again will hide the History. Previous tag settings can be viewed by clicking on each date listed.

The blue checkmark indicates the proposed settings were applied to the tag. Hovering over the check will reveal who proposed the configuration and when it was applied.

If there is no checkmark next to a date, the configuration was proposed but never loaded into the tag.



Config History 06-Nov-14 03:19 ✓ 08-Oct-14 19:53 ✓ 08-Oct-14 19:50 ✓ 08-Oct-14 19:50 ✓ 08-Oct-14 03:42 08-Oct-14 03:23 ✓

My Data is the interface that allows users to remotely access, store, and manage their tag data. To receive data through the

Portal, your Argos program username and password must be linked to your account. This allows the Portal to automatically and seamlessly pull and decode data from Argos (see <u>Linking your Argos</u> <u>username and password to your Portal account</u>).





Each Argos program can only be registered on a single Portal account. If several researchers share an Argos program, then one of them must be the Argos program owner and share data with the other users. Refer to the Data Sharing section for more information.

Navigating the Data Portal Interface

Entering the My Data interface will display a list of deployments as follows. Circled features are explained below.

		Select	a deplo	yment al	bove			\subset	···)						
														•	
			11254	174521	18B0179	🥕 Avian	18-Jul-2019 22:46	12-Mar-2020 18:05	18-Jul- 2019 00:00	12-Mar- 2020 18:06				Roof test	-
	C		11254	174515	19U3090	✗ SPLASH	13-Mar-2020 14:25	13-Mar-2020 20:10	13-Mar- 2020 14:24	13-Mar- 2020 20:09					
Tag Reports			11254	197169	19U2353	差 SPOT6	13-Jan-2020 15:57	18-Mar 2020 20 <mark>35</mark> ()	13-Jan- 2020 15:00	16-Mar- 2020 00:00					
Live Maps							Date	Date	Date 2019 13.00	Date 2020 10.00					
Live KMZ			Prog # ≎	PTT ≎	Serial 🗘	Decoded As		Last Uplink \$	First Data ≎	Last Data 🔻	Species	Researcher	≎ Year	Notes <	
Upload Data											Showing I	10 30 01 307 6	10105	ievious ne	u
Data Alerts					@gmail.cor PTT Id, Se	n rial, Type, or I		how Deploy	ments: All		▼ Showing 1	to 50 of 387 e	otrios P	revious Ne	vt
Data Sharing															_
View Data			wnload	<pre>₽ Labc</pre>	ls 🔻 🔳		Advanced	a cin	k Argos Acco	un				Q &	

For each deployment, a line item is created displaying the fields Prog#, PTT ID, Serial#, Decoded As, First Uplink Date, Last Uplink Date, First Data Date and Last Data Date as default. You can add or hide fields by clicking on the gear icon (symbol) on the top right-hand side under Help. You can also create custom labels at any time by clicking the Labels button > Manage Categories > Add Category. You can also filter any field alphabetically, numerically, or by date by toggling on the up/down arrows next to each respective field.

To view a single deployment or several, click the empty box/boxes to the left of the table. When one or multiple deployments are selected, downloading and data processing buttons relative to those deployments will become active at the top of the screen.





If PTT IDs are reused, sometimes a single line will contain data from more than one deployment. You can split a row of tag data into two rows by clicking on the Advanced button > Split Row and entering the date/time at which to split the record.

Clicking on any number or deployments will display the tag(s) summary and map views in the lower pane. The Summary tab provides a quick look at some key deployment information.

The Map tab plots the last location of each deployment that is selected. Clicking on one of the fuchsiacolored dots exposes the entire track from that deployment color-coded by time. The filter feature can be used to display only locations of certain quality, and the animation tool at the bottom allows you to watch a video of the movements.



To adjust the size of the lower pane to view more or less deployments or to see a full view of the map, pull up and down on the 3-dot slider below the data table.

Deployments with new data less than 24-hours old are identified by a flashing green circle next to the date under the Last Uplink Date column.

Additional deployments can be displayed using the Previous and Next buttons on the top right.

The options in the blue header bar are by default set to view your deployments. To view a collaborator's data, you need to access the drop-down menu of the owner section and change from My Deployments to the collaborators account name in order to view their data (see <u>Data Sharing</u>).





Tag Decode Settings

The Portal does its best to match incoming data with the correct tag type by reviewing the types of messages that have been received. If the wrench is green, grey, or red you can manually change the decoding by clicking on the wrench. The below dialogue box is displayed and you can manually choose a tag type from the dropdown menu and upload a setup file generated from one of Wildlife Computers Host programs (See Importing Settings into the Wildlife Computers Data Portal).

Another way to set the decode settings is to select the deployment of interest, click on the Advanced menu button and choose Decode Settings.

Decode Setting	js		×
Decode Setting	s For PTT ld: 110448		
Tag Type:	MiniPAT V		
Current Config:			
New Config:	C:\Users\Natalie.WILDLIF	Browse	11
			_
	Save	Cancel	

🗡 SPOT6	Blue Wrench: Decode settings obtained from Tag Portal/Tag Agent
差 SPLASH10	Green Wrench: Decode settings obtained from configuration file
≁ MK10	Grey Wrench: Decode settings determined from received data or manually selected
差 Unknown	Red Wrench: Decode settings are unknown.

Downloading Decoded and Processed Data

Selecting a single row in the Portal enables the downloading and location processing tabs along the top of the screen.

Argos locations, depth, and temperature are automatically decoded by the Portal, whereas data from tags that include Fastloc-GPS and/or Light-based Geolocation sensors require additional processing. Selecting the blue Download button will download all the decoded data and any default runs of Fastloc-GPS and/or Light-based Geolocation if they have been processed.



When the Download button is selected, a pop-up will appear prompting you to choose a filename and location to save the file. Save the output in your folder of choice. You can download data from multiple tags at once if you have selected several tags in My Data.

Fastloc® GPS and Light-based Geolocation Tag Data Processing

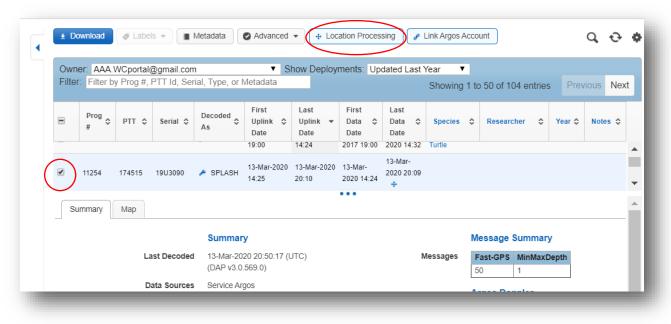
The Portal provides two services for post processing tag location data (for Fastloc and light-based geolocation tags)

- 1) Fastloc Processor—a tool for calculating locations from Fastloc-GPS snapshots, satellite ephemerides, and seed locations.
- 2) GPE3—a statistical model for estimating animal movements as time-discrete gridded probability surfaces using primarily observations of twilight, sea-surface temperatures, and swimming depth.



The following is an overview of how to navigate the Fastloc and GPE3 processing pages. Please consult the <u>Location Processing User Guide</u> for further information and tips on scheduling processing runs.

Fastloc Data Processing



To process Fastloc data, select the deployment row of interest and click on the Location Processing button. You can only process one deployment at a time. If you have two of more rows clicked, the Location Processing button will not be displayed.



Prog #	PTT	Serial	Decoded As	First	t Uplink Date	Las	t Uplink Date	First Dat	a Date	Last Data Date		Species
A	40612	13A0825	AK10					29-Apr-20	14 18:00	29-Apr-2014 23:00)	
 Back To 	o Deploymen	nts 🔶 🕂 Cre	ate New Process									ť
Filter: Fil	lter by Desc	cription, Requ	uested By, or Status						Showing 0	to 0 of 0 entries	Pre	evious Nex
Run -	 Descrip 	otion	Requested	\$	Completed	\$	Requested By	\$	Status	Score	≎ Ac	tions
					There are i	no proces	ses to show.					
Model F	Parameters	Results				000		l	ocation Proces	sing User Guide	Sta	rt Fastloc-GPS
	Parameters						vn Dates/Locati		Location Proces	sing User Guide	Sta	rt Fastloc-GPS
Proces		val								ssing User Guide		rt Fastloc-GPS

Next, click Create New Process and select one of the following:

- Manual (One-Time)
- On New Snapshot (Automatic)
- Timed (Automatic) processing and the time interval

If you would like automatic processing the preferred option is to choose Timed processing with a time interval of 12- or 24-hours, as processing on a new snapshot can cause bottlenecks in processing if many snapshots arrive consecutively.

Known Dates/Locations are listed on the right side of the Model Parameters tab. Before initiating a run, double check that the start and end locations are correct, and add any other known locations using the Metadata button on the Portal home screen. The Fastloc processor automatically includes Argos locations (if available), so there is no need to add these in the Known Locations section.

Click the Start Fastloc-GPS tab on the far right to initiate processing.

When manual (one time) processing is selected, you will receive an email when your Fastloc data completes processing and is available for download. The automatic processing runs don't generate email notifications.

Once complete, the processed run(s) will be sequentially numbered and logged as a line item under the Location Processing tab. The default process line is highlighted yellow. If there is more than one process you can switch your default processes by clicking the green pin in the action labels column. To



download the processed locations, click the blue download arrow and save the outputs in a folder of your choice.

In the example below, runs 1, 2, and 3 have been deleted, 4 is the default highlighted in yellow, and 5 is in progress as the status column has it listed as New. As its status is New, there is a pause icon in the actions column which will pause the process if required. Once the status changes to Completed, the pause icon will be replaced by a blue download arrow.

Filter: Fil	ter by Description, Requested By, or S	Status					Sh	owing 1 to	2 of	f 2 entries		Previous	Next	
Run 🔺	Description 🗘	Requested	¢	Completed	¢	Requested By	¢	Status	\$	Score	¢	Actions		
	Fastloc-GPS - Manual (One Time)	10-Mar-2017	01:16	10-Mar-2017 0	1:16	rowan@wildlifecomputers.	com	Completed				± 💼		^
	Fastloc-GPS - Timed (Automatic) Every 12 Hours	10-Mar-2017	01:23			rowan@wildlifecomputers.	com	New				H # 0		~

GPE3 Data Processing

For tags that collect light observations, geolocation calculations can be achieved using the GPE3 processor. Select the row of interest, and then select the Location Processing button and Create New Process.

	Faither ODD	Manual (One Time)	44 Car 2045 49-50	44.0 204	E 40.50							4
	Fastioo-GPS -	Manual (One Time)	11-Sep-2015 18:50	11-Sep-201	0 18:00	WCta	agger@gmail.co	m v	Completed	-		- T.
				<u> </u>	Q.							
Mode	el Parameters	Twilight Observations	SST Observations	Argos Obse	rvations	Fast	tloc GPS Observ	ations	Scores			Start GPE3
										-		
	10 10								Fastloc-GP	S Run #1 is	included	in the processing.
Anim	nal Speed 🛙			Kno	wn Dates	/Loc	ations					
3	meters/s	econd 👻	1	Date	٠	Туре 🗘	Latitud	e‡ Lon	gitude \$	Score		
Mode	el Domain				28-Jul-20 17:20		56.63		3 -6.46			
Marin	ne 🗸			*							Ξ	
					21-Nov-	2014	Deployment					-
SST	Reference D	lata Set 🚯			+ III 55.51 -6.968					6		
NOA	A OI SST V2 Hig	h Resolution 🚽									P	
				-								
		n SST data provided by th	e NOAA/OAR/ESRL PSI	D,								
Bould	er, Colorado, US	A, from their Web site at										

This will expose a number of tabs. Following is basic information for navigating the page.





Consult the <u>Location Processing User Guide</u> for specific instructions and tips on processing GPE3 data.

- Animal Speed is a required field. Assuming a normal distribution of typical sustained swimming speeds over a one-hour period, choose a speed parameter representing roughly one standard deviation above the average sustained movement rate for the animal.
- Selecting the Marine Domain will prevent "on land" locations (currently only the Marine Domain is available).
- GPE3 uses Sea-Surface Temperature (SST) observations made by the tag and compares them with a reference SST data product to help make inferences about the animal's location.
- Known Dates/Locations (entered as Metadata) can be selectively excluded by clicking on the green check marks.
- The Twilight Observations tab will display a table-list view of all of the twilights observed including individual light readings. You can selectively exclude any observation.
- The SST Observations tab will display a table-list view of all of the SST observations. You can selectively exclude any observation.
- The Argos Observations tab or Fastloc-GPS Observations tab will display Locations derived from Argos or Fastloc-GPS that can be included as part of the GPE3 modeling process.
- Clicking the Start GPE3 button on the right will start a processing run.

Viewing and Downloading Location Processing Results and Setting Default Runs

When a deployment row is selected, clicking the Location Processing button reveals all the processing runs for that specific deployment.



Prog #	# PTT	Serial	Decoded As	First	Uplink Date	Last Uplin	k Da	ate First Data I	Date	Last	Data Date
1	123456	N/A	差 MK10	28-Jul	-2014 17:44	14-Deo-201	4 11	:37 28-Jul-2014	17:20	29-No	v-2014 18:16
I+ Ba	ck To Deployments	+ Create	e New Process								6
Filter	Filter by Descri	ption, Requ	ested By, or Status					Showing 1 to	o 5 of 5 ent	tries	Previous
Run 🔺	Description			\$	Requested	\$ Completed	٥	Requested By 🗘	Status 🗧	Sc	ore 🗘 🛛 Acti
1	Fastloo-GPS - Ma	anual (One Ti	me)		11-Sep-2015 18:50	11-Sep-2015 18:50		wctagger@gmail.com	Completed		(± *
			d @ Marine - 2 Status Cloo SSTs - 2 User Locations - 1		11-Sep-2015	11-Sep-2015		wctagger@gmail.com	Completed	32.6	18 +

Each run has action icons on the right-hand side:

- The blue arrow downloads a processing run.
- The green pushpin allows you to select a run as the default for a deployment.
- The red trash can deletes a run.
- The default run is highlighted in yellow. Setting a run as a default has several knock-on effects:
 - If you download the deployment data from the Data Portal home view, the default processing run will be included in your download.
 - If you use web services to fetch data from the Data Portal, the default processing run will be included in the fetch.
 - When you view the map tab in the Deployment view, the locations from the default Fastloc GPS runs will be included.

Labels

Labels can optionally be set to help with searching and sorting data. Labels are organized by categories, such as sex and weight in the example below. To create a custom category, click the Labels tab > Manage Categories > Add Category. Type in the name of the new label category and click Create.



>
>
ose

You can add values to a category by hovering over the category name. For example, for Sex, you may want three values, Unknown, Male, and Female. Once a new value has been entered, it will be available in the dropdown menu for the next deployment.

A label or category can be deleted at any time using the red trash cans.

Assigning Metadata

Metadata are data that supplement an individual deployment. Under Deploy ID, a friendly name can be assigned. The Clock Corrections and Deployment Dates/Locations fields are used for location processing. Setting a valid start/end location for your deployment will improve the location processing performance but is not required (see the Location Processing User Guide for more information). The Comments box is an optional text field.

Data Sharing

Program owners can choose to share data with colleagues by adding them as collaborators. Both parties must have a Portal account in order to collaborate. Click the Data Sharing tab down the left side of the Portal to open the collaborator page. On the right side of the screen, enter the email address of the person with whom you wish to share. An email will be sent inviting that person to collaborate.

When you are ready to share data, set up a New Rule. Choose which collaborator the rule applies to and specify which Argos Program Number(s), PTT Number(s) or Label Category(s) you will be sharing. At least one of the three conditions listed must be set. If multiple conditions are specified, the Portal will only share data that meets all conditions selected.

Once a rule is established, data will appear in both your Portal account and your collaborator's Portal account. Collaborators are limited on what they can and cannot do with data owned by another



person. They cannot add labels, set decode settings, or split rows. They can only view, download, and run location processing for the data you allow them to access.



The options in the blue header bar are by default set to view your deployments. To view a collaborator's data, you need to access the drop-down menu of the owner section and change from My Deployments to the collaborators account name in order to view their data.



Another option for labs that share a single Argos program is to set up an Argos Guest account. This will enable simultaneous access to Argos programs via unique Argos usernames and passwords for each user. Contact Argos or Wildlife Computers for further information.

Data Alerts

Data Alerts can be set up to email researchers when tags begin transmitting. On the Data Portal home page, select Data Alerts from the left sidebar menu.

Click New Alert. Select the PTT ID number(s) and specify the destination email address and alert start and stop times. When complete, click Save.

If you will be out in the field with limited Internet when receiving alert emails, choose the lowbandwidth option which limits the size of the email.

Individual alerts can be paused or reactivated at any time by toggling the pause or play button at the end of each alert row.

Alerts can be cancelled at any time by selecting the trash icon at the end of each alert row.



		Select PTT Ids	×
New Alert	x	Your PTT Id(s): 39332 40610 64280 91978 95998	
		100976 114131 114132 144554 158393	
Alert Name: PTT Id(s):	select	Add +	
E-mail Address:	danny@wildlifecomputers.com	144554, 100976, 64280, 144554,	
Alert On: Alert Start (UTC): Alert End (UTC):	•		
E-mail Bandwidth:	Normal	The list must be comma separated list of PTT lo	ls.
	Low Save Cancel	Set Cancel]

Alerts can be set in batches by selecting multiple PTT ID numbers separated by commas.

When batch alerts are set, an individual ID alert can be cancelled using the Cancel link in the email that arrives from the Wildlife Computers Portal.

Upload Data

Using the Upload Data tab on the left side of the Portal, data files from other sources (Argos, Wildlife Computers .wch, Mote, Argos Goniometer) can be uploaded into the Portal for convenient access and storage. The maximum file size allowed for upload is 1 GB.

- Argos files that are associated with the same PTT id should be zipped together and uploaded as a single zip file. Files from the Argos website (CSV, .PRV, DS, or .TXT) must be raw, undecoded files.
- Argos Goniometer files must be uploaded one at a time, and the file name must be the PTT Decimal. For example, 123456.csv.
- Wildlife Computers .wch files must be uploaded individually. If it is zipped, it must be the only file in the .zip file.

ita Sharing	File	 Upload Date 	♦ Process Date
ta Alerts	138060.prv	04-Jul-2014 02:11:20	04-Jul-2014 02:14:1
ve KMZ	138063.prv	04-Jul-2014 02:08:09	04-Jul-2014 02:11:0
	138064.prv	04-Jul-2014 02:08:27	04-Jul-2014 02:11:1
	DS.TXT	07-Jul-2014 01:11:56	07-Jul-2014 01:14:5
	DS.TXT	07-Jul-2014 01:16:44	07-Jul-2014 01:19:5
	prv119581.txt	15-Apr-2014 21:48:22	15-Apr-2014 21:45:2



Import a File	
Manually upload data files to the	data portal. Files that are associated should be zipped together and uploaded as a single zip file
C:\Users\kevinlay\Docum Browse	e Upload

Live KMZ

A live KMZ file can be created that will update automatically when new data comes in. The deployments and the items to be shown by default can be specified. To access, click the Live KMZ tab.

The frequency at which KMZ files are generated is also configurable. They are linked to our servers so can be downloaded once and left to refresh automatically.

Live Maps

Live Maps allows you to create custom live maps that can be easily embedded in a website. This map is intended for display purposes only, and not for use in scientific publications.

lame	\$
------	----

Note: Live Maps can only be created by original data owners using information from their own Portal. Live Maps cannot be created using shared data from other accounts or by collaborators.

Create a Live Map by clicking on New Map and giving it a name. Specify which deployments you want shown on the map by choosing Program Numbers, PTT lds, Serial Numbers, Metadata conditions. You must specify at least one condition—you don't need to choose criteria for each—and if multiple conditions are specified, a deployment must match all of them in order to be included on the map. Choose to display Track Lines, Location Points, or both. Keep in mind that maps with a high number of locations will take a long time to load if points are displayed. Data owners can add multiple Argos projects into the Live Map. Instead of adding individual ID numbers, select Conditions, press and hold the ctrl key (Windows) and select multiple projects. You can remove projects by holding the ctrl key and deselecting individual ID numbers.

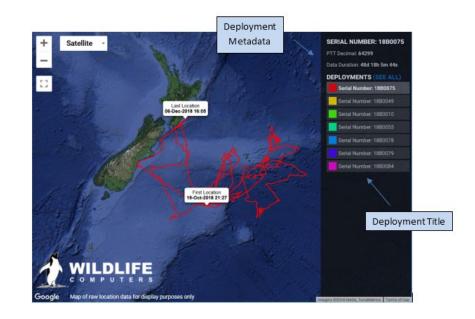
Next, choose the field that will be the title of each deployment on the map, and which metadata you want displayed when a single deployment is selected. See the graphic below. If you wish to filter the location to eliminate outliers for display purposes, you can choose which types of locations to include. You can filter by Argos location classes Mote locations, and Fastloc and Conventional GPS locations.



GPE3 results are not available via Live Maps. Additional filters include Fastloc residuals and an animal speed filter. You can choose to create maps for the full deployment or for a number of recent days.

If deployment start and end dates have been entered in the Metadata > Known Dates/Locations field in the My Data section, those locations will be displayed on the map and used to start the animal speed filter. A residual filter setting of 30 will ensure only low residual Fastloc fixes will display in the map.

After defining the map, click Save. The pop-up box will provide code that can be copied and immediately embedded in your website, as well as a direct link that can be emailed. You can edit the map at any time (change deployment criteria, etc.) and the link will automatically be updated. When the webpage is refreshed, all new data will automatically be displayed.



Importing Settings into the Wildlife Computers Data Portal

Users of SPLASH, TDR10 and TDR-Mk9 tags should take full advantage of the Portal by manually uploading data from these tags directly to their account and have all the functionality of the Portal working for them.

To do so, disconnect from the HOST software using either Deploy or Standby mode. The software will automatically save a copy of the tag configuration as a .wch file and also a report file.

Once your tag has transmitted or been recovered and uploaded to the Wildlife Computers Portal, the .wch settings file should be imported into the Portal to provide it with the correct tag setup information. It will then also add the bin limits to the histogram output .CSV files.

These files are typically saved in the default file locations specified in the Host programs. The setup backup file will be in the Backup folder and the report file will be in the Report folder. See the MK10Host and MK9Host user manuals for more information.

To import the .wch file into the Portal, click on the ID number and then click on the colored wrench in the Decoded As column. That will bring up a Decode Settings box that will enable you to add the



correct .wch file for that tag serial number. Be sure to hit save when you have navigated and selected the correct file.

												Sho
8	Prog # 0	PTT .	Serial Ó	Decoded As	First Uplini	Date O	Last Uplink Date	¢ (First Data Date	0	Last Data Date	0
3	N/A	N5A	14A0373	AK10	-			1	5-Aug-2015 16:13	33	23-Aug-2015 00:00 🔶	
3	NA	N/A	14A0373	🔺 мкто			-	1	5-Aug-2015 16:13	- 83	23-Aug-2015 00:00 🔶	
3	N/A	NG	N/A	> Unknown				11	4) 	84		
2	N/A	2404	1440371	A MK10					7015 16:08	14	01-Sep-2015 00.55 +	
Ð	527	34428	N/A	/ Unknown	Decode Settin	gs			×	8	-	
8	527	34433	N/A	 Unknown 	Decode Setting							
3	527	34435	N/A	🔺 Unknown			14					
3	527	#3619	N/A	A SPOTS	Tag Type: Current Config		•		014 16:36		11-Nov-2014 06:58	A
3	527	43718	N/A	≠ ut	New Config:	publication and an and a second	No file chosen		012 02:45	n7	03-Mar-2012 21:31 +	٨
8	527	54527	N/A	A MK10	then boing		3 the life cheesen		2014 03:00	50	04-Feb-2015 15:26 🔶	
8	527	54528	NA.	▲ MK10			Save	Cancel	1014 01:49		10-May-2015 12:00 🔶	
3	527	54529	NA	🔺 Unknown			Save	valicei		3		
	527	54531	NA	J ▲ MK10	25-Aug-2014	01:38	22-Jan-2015 22:47	0	5-Nov-2014 01:50	S	20-Jan-2015 18:26 +	

My Motes

My Motes is the interface that allows users to receive data in near real-time from any Argos tag within range of a <u>Wildlife Computers Mote</u>. A Mote is a Wildlife Computers designed, ground-based Argos receiving station.



In remote sites where Wi-Fi is not available, data can be saved to a USB memory stick for subsequent uploading into the Portal. A 3G mobile phone link is also available.

Unlike an Argos satellite, a Mote cannot calculate Doppler locations. However, they can relay Fastloc-GPS and tag sensor data for what is essentially 100% satellite coverage of the local area.

Clients with Motes may monitor data and Mote performance via the My Motes interface.





Troubleshooting

Problem	Explanation	Action
Trouble logging in to	You have not yet set up a	Set up a Portal account by entering your email
the Wildlife Computers	Portal account.	address and a password.
Portal.	There was an error with	Make sure you enter the correct email and
	your email/password	password combination you signed up with.
	combination. Please try	Passwords are case sensitive; email addresses
	again.	are not.
	Server error, please try	Check in your modem security settings that our
	again message. Some	website is not blocked. You can also add our
	modems, particularly	website to the trusted sites list. If the modem
	home office networks	has a keyword blocker, disable it, and you
	have their own security	should get instant access.
	built-in.	
I am a collaborator on a	You may not have	Check your emails; you need to click the Accept
project but cannot view	activated the	Collaboration Request link in the email to
data from the person	collaboration request.	activate it. Once accepted, the invitee will get
who shared it with me.		an email response saying that you have
		accepted the collaboration request.
	In My Data, the owner	Click the down arrow next to My Deployments
	drop-down menu may	to show a list of collaborators. Click on the
	still be showing My	collaborator of interest and the data will show.
	Deployments.	
	You can only see partial	The owner of the data may have only given you
	data.	access to limited PTT IDs or data sets. In order
		to view more data, you may need the owner to
		change the sharing rules to give you more
		privileges.
	You cannot manipulate	Collaborators are limited on their options. They
	any data.	cannot add labels, set decode settings, or split
		rows; they can only view and download the
		data and run location processing for the tags
_		the data owner allows them to access.
An Argos program can	An Argos program	If several researchers share an Argos program,
only be registered on a	username and password	then one of them must be the Argos program
single Portal account?	can only be associated	owner and share data with the others as
	with one Portal account.	collaborators.
Several researchers	The Argos program needs	The Argos program owner must log into the
sharing the same Argos	to be split into guest	Argos website with the original program



program need to have	accounts, each with their	username and password and set up an Argos
full read, write and edit	own username and	Guest account(s), each with their own
functionality of data,	password.	username and password. Each party must then
not just be a		enter their own username and password into
collaborator.		the Wildlife Computers Portal.



Contacting Wildlife Computers

U.S. and International

Wildlife Computers technical sales and support teams are located in Redmond, WA, USA, and Havelock North, New Zealand, allowing us to promptly cover a wide range of time zones.

Email

Sales, Quotes, and Inquiries: tags@wildlifecomputers.com Technical Support: support@wildlifecomputers.com

Mailing and Shipping

Wildlife Computers 8310 154th Avenue NE, Suite 150 Redmond, WA 98052 USA

Phone +1 (425) 881 3048 Website WildlifeComputers.com

For Asian Clients

While we welcome your direct correspondence, we recommend that you contact our colleague, Yong Huang, for assistance. Mr. Huang understands the special purchase processes for your countries and will provide you with the best service for the best price. He also is fluent in Japanese, Chinese, and English.

Mailing Address—Please ship tags to our main office in Redmond, WA.

Yong Huang Enfotran Corporation 816 Evergreen Point Road, #217 Medina, WA 98039 USA

E-mail yong.huang@enfo.us Phone +1 (425) 456 0101 Fax +1 (425) 456 0303

