Program TagPro Acoustic-Tag Data Translation Utility

Version 1.0

Developed by: Peter Westhagen, John R. Skalski, and James Lady Columbia Basin Research School of Aquatic & Fishery Sciences University of Washington 1325 Fourth Avenue, Suite 1515 Seattle, Washington 98101-2540

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Chapter 1: Overview

Program TagPro (Acoustic-Tag Data Translation Utility)

Program TagPro is a desktop application that takes valid acoustic-tag events produced by Program FAST or data that has been formatted similarly and creates an output file of capture/detection histories used for survival analysis by Program ATLAS or other third-party software.

Figure 1 shows Program TagPro at startup.

ata Release	es Sites Files	Use	er-selected tabs		
	: \Users \Craig \Deskto	op\TagPro Data\data			Load
Dutput Output Folder	C: \Users \Craig \Des	ktop\TagPro Data			
Defined Runs	Format	Releases	Sites		
			Add Run	Edit Run De	elete Run
Status					

Figure 1. Program TagPro at startup

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There are four main tabs—"Data," "Release," "Sites," and "Files" —where the primary work is done. The user will press the gear icon in the upper left to execute the user-defined runs. At startup before any data are loaded, only the "Data" tab is available.

There are also menus across the top. The only functionality in the menus not available elsewhere is the "Clear All" command under the "Data" menu. This will clear all input data, and the TagPro application will revert to its initial startup state. Since this is a destructive command, a warning will be issued first that allows the user to cancel the command.

The steps in Program TagPro to create an output file are as follows:

- 1. Load the input data
- 2. Define the release groups
- 3. Define the sites to be used
- 4. Define the runs to be executed
- 5. Execute the runs

Chapter 2: Loading the Input Data

Program TagPro requires three input files:

- 1. "tags.csv" contains the tagging data
- 2. "nodes.csv" contains the node definitions
- 3. "events.csv" contains the valid detection events

Optionally, the input files may include the file "removals.csv," which contains information about censoring events, and the files "tag_attributes.csv" and "tag_life_data.csv. These data are obtained through other sources such as PIT-tag data. The optional files can be uploaded at study creation or any time prior to study verification.

2.1 File Format

Files may contain one or more optional columns that do not need to be present in the uploaded files. They will, however, be included in exported files though their contents will be set to null if not represented in the original imported files. Input and output formats are identical for each of these six types and are given below. The proper column titles for each file type are listed below. The Appendix to this manual further details the types of values that should exist within each column.

Tags File

Unique key: fish_tag_year, tag_code (optional columns highlighted in blue)

- 1. tag_code
- 2. project_code
- 3. tag_group
- 4. tagger_name_xlat
- 5. bucket
- 6. lot
- 7. species_code_xlat
- 8. length

9. weight

- 10. pit_code
- 11. fish_tag_date: format yyyy-mm-dd
- 12. tag_activate_date: format yyyy-mm-dd hh:mm:ss
- 13. tag_release_date: format yyyy-mm-dd hh:mm:ss
- 14. release_location: the main release location (e.g. Roosevelt)
- 15. release_location_xlat: the sub-release location (e.g. Roosevelt_01)
- 16. release_location_river_kilometer
- 17. release_location_latitude
- 18. release_location_longitude

19. mort_xlat: 0 if not a mortality

- 0: Released Alive
- o 1:24 hour holding morality release or surgical mortality release .
- 2: Intentional sacrifice and release.
- 3:Transport mortality release
- 20. pri (e.g., *pulse rate interval*)

Nodes File

Unique key: node_code, deploy_year

- 1. node_code
- 2. latitude
- 3. longitude
- 4. river_kilometer
- 5. location: this is the array (e.g. CR349.0)
- 6. location_xlat: this is has an indication of the node (e.g. CR349.0_01)
- 7. deploy_date: format yyyy-mm-dd hh:mm:ss
- 8. recovery_date: format yyyy-mm-dd hh:mm:ss
- 9. elev_or_depth

Events File

- 1. node_code
- 2. tag_code
- 3. first_computed_datetime: format yyyy-mm-dd hh:mm:ss
- 4. last_computed_datetime: format yyyy-mm-dd hh:mm:ss
- 5. hits

Tag Life Data File

- 1. tag_code
- 2. lot
- 3. tag_life_days (precision to 100th of a day)

Tag Attributes File

- 1. tag_code
- 2. attribute
- 3. value

Removals File

- 1. tag_code
- 2. removal_date: format yyyy-mm-dd hh:mm:ss
- 3. riverkm
- 4. removal_type_id
 - 1: PIT- Censoring Indicated by PIT Detection
 - 2: UPRIVER- Upriver behavior
 - 3: BIRD- Bird Predation
 - 4: ATTRANS- Transportation indicated by AT Detections

It is important to note that date format across all input files must be yyyy-mm-dd hh:mm:ss or yyyy-mm-dd (as specified), as dates are used in ordering detections. **WARNING:** If you are using Excel to process or view your data, it will save dates in a different default format from this.

2.2 File Loading

The next step is to specify the input directory for the input files, as shown in Figure 2.

Data	Releases	Sites	Files				
-Input-			e to sala	t input file (folder .		
Data Fo			a/TagPro/input	t input ino		Loa	d
Outract					elected fo		

Figure 2. Loading input data in Program TagPro

All of the files mentioned above must be located in the specified input directory. The user then presses the "Load" button to load the data. Large files may take several minutes. When completed, the other tabs—"Release," "Sites," and "Files" —become available.

2.3 Files Tab

After loading the data, the user may select the "Files" tab to show the input files. It will show the required files listed above. It will also display any other files in the input folder that are not used by the TagPro application. This is because some files, such as a tag-life-data file, are important for the subsequent survival analysis, and it is important to keep their association with the input data. An example is shown in Figure 3.

le	(Data Help				
3	5					
Da	ta	Releases	Sites Files			
-L	oa	ded Data Files				
		Data Type	File	Load Date	File Modified Date	<u>^</u>
	1	tags	tags.csv	2013-09-17 14:0	2013-06-11 14:51:42	
	2	nodes	nodes.csv	2013-09-17 14:0	2013-06-11 14:51:42	=
	3	events	events.csv	2013-09-17 14:0	2013-06-11 14:51:42	-
	4	tag_attributes	tag_attributes.csv	2013-09-17 14:0	2013-06-11 14:51:42	
	5	tag_life_data	tag_life_data.csv	2013-09-17 14:0	2013-06-11 14:51:42	
	6	removals	2010 Spring Re	2013-09-17 14-0	2013-06-11 13:41:30	-



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Chapter 3: Defining the Release Groups

After loading the data, the user can click on the "Releases" tab to define the release groups. Figure 4 shows the "Releases" tab for a sample data set.

agPro Dat						
	Releases Site se Builder ilable Release Group					
	Release Locatio	n Release River KM	Species	Tag Year	Release Count	*
5	Roosevelt	390	15H	2010	1680	
6	Roosevelt	390	15U	2010	607	
7	Roosevelt	390	35H	2010	1672	E
8	Roosevelt	390	35U	2010	616	
9	TDA	307	15H	2010	588	-
F	Release Name: Hoo	d_River River	Kilometer: 275		Create Bulk	Add
Relea		lick to use all of ₽r KM	the TagPro	releases -	Dele	ete

Figure 4. Defining the release groups

It is divided into two parts:

- 1. The top part is labeled "Available Release Groups." When TagPro loads the data, it defines these release groups by unique release location and species codes.
- 2. The bottom part shows the releases that the user defines. It is blank at the start, and the user must create releases to be used for executing the runs.

As shown Figure 4, the user may simply use the *Ctrl* or *Shift* keys to select multiple release groups or a range of release groups and then click the "Bulk Add" button to add the selected groups. Alternatively, the user may click on a single specific release group, change the "Release Name" and "River Kilometer" for that group, and then click "Create" to add that single release group to their releases. The "Bulk Add" function does not allow for changing the release names and river kilometers.

If pooled release group is desired, (for example, individual replicate groups released at the same location which can be considered as a single release), highlight the desired releases, rename the "Release Name," and use "Create" instead of "Bulk Add."

In Figure 5, the user has selected the four "Hood_River" releases. The default release name is simply the one used in the tags input file, or in the case of multiple releases selected, the name of the first release followed by a hyphen and then the name of the last release.

-	Pro					
	Data	a Help				
3						
ata	3	Releases Sites	Files			
Re	leas	e Builder				
4	Avail	able Release Groups				
		Release Location	Release River KM	Species	Tag Year	Release (🔺
	1	Hood_River	275	15H	2010	584
	2	Hood_River	275	150	2010	213
	3	Hood_River	275	35H	2010	493
	4	Hood_River	275	35U	2010	305
	5	Roosevelt	390	15H	2010	1680
Re	leas	es	d_River River Kilom			
-		se Site – Kiver	KM			
C	Cha	ange the de	the	ss to create ones select	e release gro ted above	up from
C	Chi		Pre the			Delete

Figure 5. Defining a release group from four TagPro-defined release groups

The user can change the default name by editing the "Release Name" as shown in Figure 5. In this case, if the user changes the name to "All Hood_River," and clicks "Create," the result will be as shown in Figure 6. The user can continue to create more user-defined release groups in the same way.

To remove a release group that has previously been defined, select it under the "Releases" table and click the "Delete" button.

	Release Location	Release River KM	Species	Tag Year	Release (🔺
1	Hood_River	275	15H	2010	584
2	Hood_River	275	15U	2010	213
3	Hood_River	275	35H	2010	493
4	Hood_River	275	35U	2010	305
5	Roosevelt	390	15H	2010	1680 -
eleas leas	es	d_River River Kilom	eter: 275	Create	Bulk Add
(****		ver KM			
AI	ll Hood_River 27	5			

Figure 6. The "Releases" tab after defining a release group

Da	ita Help				
)					
ta	Releases Sites	Files			
elea	se Builder				
Ava	ailable Release Groups				
	Release Location	Release River KM	Species	Tag Year	Release (*
2	Hood_River	275	150	2010	213
3	Hood_River	275	35H	2010	4 93 _≡
4	Hood_River	275	35U	2010	305
5	Roosevelt	390	15H	2010	1680
6 elea	Roosevelt ase Name: All Roosev	390 elt River Kilom	15U eter: 390	2010 Create	607
	ase Name: All Roosev				•
elea	ase Name: All Roosev				•
elea R	ase Name: All Roosev	elt River Kilom			•
elea R 1 A	ase Name: All Roosev Ises Release Site All Roosevelt	elt River Kilom River KM			•
elea R 1 A 2 A	ase Name: All Roosev Ises Release Site All Roosevelt	elt River Kilom River KM 390			•
elea R 1 A 2 A	ase Name: All Roosev Ises Release Site All Roosevelt All Hood_River	elt River Kilom River KM 390 275			•
elea R 1 A 2 A	ase Name: All Roosev Ises Release Site All Roosevelt All Hood_River	elt River Kilom River KM 390 275			•
elea R 1 A 2 A	ase Name: All Roosev Ises Release Site All Roosevelt All Hood_River	elt River Kilom River KM 390 275			Bulk Add
elea R 1 A 2 A	ase Name: All Roosev Ises Release Site All Roosevelt All Hood_River	elt River Kilom River KM 390 275			•

In Figure 7, the user has created three release groups.

Figure 7. Multiple user-defined releases

Multiple releases in the "Available Releases Groups" are selected by holding the *Shift* key and left-clicking to select a range of releases, or by holding the *Ctrl* key and left-clicking to select the releases one at a time.

Chapter 4: Defining the Sites

The user presses the "Sites" tab to define the sites to be used, as shown in Figure 8.

agPro					
Dat	ta Help				
3					
ata	Releases Sites	s Files			
Sites E		1100			
	ilable Arrays				
	Location	River KM	Deploy Year	Node Count	*
1	CR351.0	351	2010	8	=
2	CR349.0	349	2010	94	
3	CR346.0	346	2010	4	
4	CR311.0	311	2010	5	
5	CR309.0	309	2010	86	+
Site Sites	Name: CR311.0	River Kilom	eter: 311	Create	Bulk Add
Loca	tion Rive	er KM			
LUCA					
					Delete

Figure 8. The "Sites" tab for defining sites in Program TagPro

This works in much the same way as defining release groups as described in the previous section. The user can press "Bulk Add" to include an array of selected sites, or select one or more sites, change the default Site Name if desired, and click "Create."

In a hypothetical study, for example, the user might want to look at survival through four upstream sites and may not be interested in survival in the downstream sites beyond that. Thus, all downstream sites could be grouped together into one user-defined site; all detections at any of the downstream sites would then be counted as detections at the user-defined site.

In Figure 9, the user includes the first upstream site, "CR351.0" by selecting it and clicking "Create."

agPro)			
Dat	ta Help			
3				
ata	Releases Si	tes Files		
	Builder	1100		
	ilable Arrays	-1. Select t	ne site to be	used
	Location	River KM	Deploy Year	Node Count ^
1	CR351.0	351	2010	8
2	CR349.0	349	2010	94
3	CR346.0	346	2010	4
4	CR311.0	311	2010	5
5	CR309.0	309	2010	86
				T
Site	Name: CR351.0	River Kile	ometer: 351	Create Bulk Add
Sites -	2. Click	Create to in	clude the sit	
Loca	ation Ri	iver KM		
				Delete
				Delete



The site CR351.0 will then appear in the bottom table labeled "Sites." This process is then repeated for the next three sites with the result shown in Figure 10.

Tag	Pro					
ile	Dat	ta Help				
٩						
Data		Releases Sit	es Files			
		Builder	1100			
		ilable Arrays				
		Location	River KM	Deploy Year	Node Count	
	1	CR351.0	351	2010	8	=
	2	CR349.0	349	2010	94	
	3	CR346.0	346	2010	4	
	4	CR311.0	311	2010	5	
	5	CR309.0	309	2010	86	
						•
5	Site	Name: CR233.0	River Kild	meter: 233	Create	Bulk Add
Sit	es					
	L	ocation	River KM			
1	С	R351.0	351			
2	с	R349.0	349			
3	с	R346.0	346			
4	С	R311.0	311			
						Delete

Figure 10. The "Sites" tab after defining four upstream sites

In order to include the remaining downstream sites, the user clicks on the first downstream site (CR309.0), scrolls down to the final site (CR002.8), holds *Shift* and left-clicks on it, and changes the site name to "Downstream, and clicks "Create" as shown in Figure 11. The resulting site called "Downstream" will then appear in the "Sites" table in the lower portion of the Sites tab.

a Data Help Data Releases Sites Sites Builder 1. Select all sites to be included Available Arrays 1. Select all sites to be included Location River KM Deploy Year Node Count 18 CR029.3 29.3 2010 5 19 CR020 22 2010 16 20 CR021.3 8.3 2010 22 21 CR002.8 2.8 2010 27 21 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Buik Add Sites 2. Change name to "Downstream" 1 CR351.0 351 3. Click Create button 3 CR340.0 349 3. Click Create button 349 3 CR340.0 346 4 CR311.0 311 Delete				
Ata Releases Sites Files Sites Builder Available Arrays 1. Select all sites to be included Location River KM Deploy Year Node Count 18 CR029.3 29.3 2010 19 CR022.0 22 2010 20 CR004.3 8.3 2010 20 CR004.5 4.5 2010 21 cR002.8 2.8 2010 22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Buik Add Sites 2. Change name to "Downstream" Location River KM 1 CR351.0 351 3. 2 CR349.0 349 3 CR346.0 346 4 CR311.0	Data Help			
Sites Builder Available Arrays Location River KM Deploy Year Node Count 18 CR029.3 29.3 2010 5 19 CR022.0 22 2010 16 20 CR004.5 4.5 2010 22 21 CR004.5 4.5 2010 27 22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Location River KM 351 3. Click Create button 3 CR349.0 349 3. Click Create button 3 CR346.0 346 4 4	Ş			
Available Arrays 1. Select all sites to be included Location River KM Deploy Year Node Count 18 CR029.3 29.3 2010 5 19 CR022.0 22 2010 16 20 CR002.3 8.3 2010 22 21 CR004.5 4.5 2010 3 22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Location River KM 1 1 CR351.0 351 3. Click Create button 3 CR346.0 346 4 4 CR311.0 311	ta Releases	Sites Files		
Location River KM Deploy Year Node Count 18 CR029.3 29.3 2010 5 19 CR022.0 22 2010 16 20 CR001.3 8.3 2010 22 21 Cr004.5 4.5 2010 3 22 CR02.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" 1 Creaton Bulk Add 2 CR349.0 349 3. Click Create button 3 CR346.0 346 4 CR311.0 311	Sites Builder			
18 CR029.3 29.3 2010 5 19 CR022.0 22 2010 16 20 CR004.3 8.3 2010 22 21 C4004.5 4.5 2010 3 22 CR02.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Location River KM 1 CR351.0 351 2 CR349.0 349 3. Click Create button 3 CR346.0 346 4 4 CR311.0 311	Available Arrays	1. Select	all sites to b	e included
19 CR022.0 22 2010 16 20 CR004.3 8.3 2010 22 21 Cx004.5 4.5 2010 3 22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Location River KM 1 CR351.0 351 2 CR349.0 349 3 CR346.0 346 4 CR311.0 311	Location	River KM	Deploy Year	Node Count ^
20 CR00/1.3 8.3 2010 22 21 CR004.5 4.5 2010 3 22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Location River KM 1 CR351.0 351 2 CR349.0 349 3 CR346.0 346 4 CR311.0 311	18 CR029.3	29.3	2010	5
21 \$2004.5 4.5 2010 3 22 \$CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Image: Change name to "Downstream" Image: Change name to "Downstream" Image: Change name to "Downstream" 1 CR351.0 351 3. Click Create button 2 CR349.0 349 3. Click Create button 3 CR346.0 346 Image: Change name to the transment of	19 CR022.0	22	2010	16
22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" 1 Create Bulk Add 1 CR351.0 351 3. Click Create Dutton 2 CR349.0 349 3. Click Create Dutton 3 CR346.0 346 4 CR311.0 311	20 CR003.3	8.3	2010	22
22 CR002.8 2.8 2010 27 Site Name: Downstream River Kilometer: 233 Create Bulk Add Sites 2. Change name to "Downstream" Image: Change name to "Downstream" Image: CR310 351 3. Click Create button 2 CR346.0 346 346 311 Image: CR311.0 311	21 CR004.5	4.5	2010	3
Sites 2. Change name to "Downstream" Location River KM CR351.0 351 CR349.0 349 CR346.0 346 CR311.0 311	22 CR002.8	2.8	2010	
1 CR351.0 351 2 CR349.0 349 3 CR346.0 346 4 CR311.0 311				
2 CR349.0 349 3 CR346.0 346 4 CR311.0 311	Sites	2. Change na		
2 CR349.0 349 3 CR346.0 346 4 CR311.0 311	Sites	2. Change na		
4 CR311.0 311	Sites	2. Change na River KM	me to "Down	stream"
	Sites Location 1 CR351.0	2. Change na River KM 351	me to "Down	stream"
Delete	Location 1 CR351.0 2 CR349.0	2. Change na River KM 351 349	me to "Down	stream"
Delete	Location 1 CR351.0 2 CR349.0 3 CR346.0	2. Change na River KM 351 349 346	me to "Down	stream"
	Location 1 CR351.0 2 CR349.0 3 CR346.0	2. Change na River KM 351 349 346	me to "Down	stream"
	Location 1 CR351.0 2 CR349.0 3 CR346.0	2. Change na River KM 351 349 346	me to "Down	istream"

Figure 11. The "Sites" tab when creating one site that includes all downstream sites

Chapter 5: Defining the Runs

Once the release groups and the detection sites have been defined, the user can now set up "runs." A user selects one or more releases, and then selects two or more sites to define a run. When the run is executed, an output file of capture histories will be created that can be used to analyze survival of the chosen releases through the chosen sites.

In order to define a run, click on the "Data" tab and click the "Add Run" button. A dialog will appear as shown in Figure 12. The user must enter a name for the run and select an output file format. There are two formats available: ATLAS format and the Standard format, as explained below in Section 5.1. In the example shown in Figure 12, the user has named the run "Hood River Chinook" and is using the ATLAS format for the output file. The user then presses the "Next" button to continue.

T Add Run Definition	
Run Info Select a name and format for the run.	
Run Info Name Hood River Chinook	
Clicks Next to continue to selecting releases	
< Back Next > Cancel	

Figure 12. Dialog for creating a run

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Figure 13 shows the dialog for selecting the releases for the run. In this example, three releases have been previously defined by the user, and one or more of them must be selected for defining the current run. In this case, the user selects just one release, "Hood_River Chinook" and presses "Next" to continue.

T A	dd	Run Definition	? <mark>×</mark>
R			groups. The release groups apear in the output with the fish for the at the start of the output, followed by the fish from the second, etc.
ſ	Sel	ect Releases	
		Release Site	River KM
	1	All Hood_River	275
	2	Hood_River Chinook	275
	3	Hood_River Steelhead	275
			< Back Next > Cancel

Figure 13. Selecting the releases for a run

Figure 14 shows the dialog for sites selection. The user must choose two or more previously defined sites. In this case, the user has selected all of the sites. As before, the user presses "Next" to continue.

T Ad	dd	Run Definition	? <mark>* *</mark>
D		ection Array Defi Choose detection a	nition rrays for the capture histories.
r.	Sel	ect Sites	
		Location	River KM
	1	CR351.0	351
	2	CR349.0	349
	3	CR346.0	346
	4	CR311.0	311
	5	Downstream	233
			< Back Next > Cancel

Figure 14. Selecting the sites for a run

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The final step is to review the settings the user has selected, as shown in Figure 15. The summary shows the name of the run, the releases selected, and the sites selected. At any step while defining a run, the user can use the "Back" button to change a previous setting. Once the user is satisfied with the selections, the "Finish" button is clicked. The run then shows up on the "Data" tab of the TagPro dialog. The user can repeat the above process to define multiple runs.

Add Run Definition
Review Confirm that your selections are correct. Use the back button to go back and make changes. When you are satisfied click Finish.
Run Definition Summary
Run Summary Name: Hood River Chinook Format: ATLAS Releases: Hood_River Chinook Sites: CR351.0,CR349.0,CR346.0,CR311.0,Downstream
< Back Finish Cancel

Figure 15. Summary of a run definition

In Figure 16, the user has defined an additional run—a second one using the Hood River Steelhead release instead of the Hood River Chinook.

T agP	Pro			
File D	Data Help			
٢				
Data	Releases Sites	Files		
-Inpu Dat	ut a Folder C:/AcousticDat	a/TagPro/input		Load
	put tput Folder C:/AcousticD ined Runs	ata/TagPro/outp	ut	
	Name	Format	Releases	Sites
1	Hood River Chinook	ATLAS	Hood_River Chinook	CR351.0, CR349.0, CR346.0, CR311.0, Downstream
2	Hood River Steelhead	ATLAS	Hood_River Steelhe	CR351.0, CR349.0, CR346.0, CR311.0, Downstream
				Add Run Edit Run Delete Run

Figure 16. Portion of Main Dialog with two runs defined

5.1 Output Formats

There are two output formats available in the TagPro application: (1) ATLAS format and (2) Standard format.

The ATLAS format is the preferred format for survival analysis in Program ATLAS. The output file consists of one line per detection event. The Standard format can also be read by the Program ATLAS but contains additional information available in the input files for additional analysis such as looking at tagger effect, length or weight effect, or analyzing travel times.

Chapter 6: Executing the Runs

Prior to executing the runs, the user must select the folder where the output files are to be placed. This is done on the "Data" tab as shown in Figure 17.

					n -
Output Folder	C:/AcousticData/Tag	Pro/output			J.
efined Runs –	Draese to	ealact folds	r for output fil	~	
	F10555 10	2010CL IOID	i loi output lii	62	_
N	F	Poleases	Citer		

Figure 17. Selecting the folder for the output files

Once the runs have been defined and the output directory has been selected, the user may execute one or more runs by selecting them in the "Defined Runs" table, and pressing the gear icon in the upper left as shown in Figure 18.

TagPro			
File Data Help			
🍥 🗲 🗕 Press t	o create th	e output file for t	he selected run(s)
Run filter using cu	rrent settings		
Data Folder C:/AcousticDat	a/TagPro/input		Load
Output			
Output Folder C:/AcousticD	ata/TagPro/outpu	ıt	
Defined Runs	od River C	hinook" run sele	cted
Name	Format	Releases	Sites
1 Hood River Chinook	ATLAS	Hood_River Chinook	CR351.0, CR349.0, CR346.0, CR311.0, Downstream
2 Hood River Steelhead	ATLAS	Hood_River Steelhe	CR351.0, CR349.0, CR346.0, CR311.0, Downstream
			Add Run Edit Run Delete Run

Figure 18. Executing the selected runs

In this example, the user has selected the "Hood River Chinook" run; pressing the gear icon will cause the selected run(s) to be executed and the output file(s) created. It may take several minutes for the output file to be created. The message "Run complete" will appear in the Status messages window when complete.

An output file is created for each run in the specified output directory. The name of the output file is the run name, followed by an underscore, followed by the format of the output ("ATLAS" or "Standard"). In the example in Figure 18, the output file will have the name "Hood River_ATLAS.csv."

Appendix: Input File Formats

tags	
💫 id	integer
📄 tag_code	varchar(20)
📄 tagger_name_xlat	varchar(20)
📄 bucket	integer
📄 lot	integer
species_code_xlat	varchar(20)
📄 length	real
📄 weight	double
pit_code	varchar(20)
📄 fish_tag_date	integer
📄 tag_activate_date	datetime
📄 tag_release_date	datetime
release_location	varchar(20)
release_location_xlat	varchar(100)
release_location_river_kilometer	integer
release_location_latitude	real
release_location_longitude	real
📄 mort_xlat	integer
📄 pri	real
📄 load_id	integer

Figure A1. Proper column names and required value types for the Tags input file

Appendix: Input File Formats

i nodes	
🌛 id	integer
node_code	varchar(20)
📄 latitude	varchar(20)
📄 longitude	varchar(20)
river_kilometer	integer
location	varchar(20)
location_xlat	varchar(20)
📄 deploy_date	varchar(20)
recovery_date	varchar(20)
elev_or_depth	
📄 load_id	integer



events	
🌛 id	integer
node_code	varchar(20)
tag_code	varchar(20)
first_computed_datetime	datetime
last_computed_datetime	datetime
📄 hits	integer
📄 load_id	integer
📄 tag_id	integer
📄 node_id	integer

Figure A3. Proper column names and required value types for the *Events* input file

🔟 tag_life_data	
🛃 id	integer
tag_code	varchar(20)
📄 lot	integer
tag_life_days	real
📄 load_id	integer

Figure A4. Proper column names and required value types for the *Tag Life Data* input file

📄 id	integer	"id" integer
tag_code	varchar(20)	"tag_code" varchar(20)
attribute	varchar(250)	"attribute" varchar(250)
📄 value	varchar(250)	"value" varchar(250)
📄 load_id	integer	"load_id" integer
ag_id	integer	"tag_id" integer

Figure A5. Proper column names and required value types for the *Tag Attributes* input file

removals	
Did 😡	integer
tag_code	varchar(20)
removal_date	datetime
removal_river_km	int
removal_type	varchar(20)
ag_id	integer
load_id	integer

Figure A6. Proper column names and required value types for the *Removals* input file

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