

PAMGuard Maintenance and Support

Activites

1 March to 30 July 2018

This report details work conducted by the University of St Andrews in continued support of the PAMGuard software using funds available through the voluntary contribution system.

Tasks Completed

Bug Fixing

A number of bugs have been fixed in PAMGuard:

- Bug 366. Rocca manual whistle contour extraction broken
- Bug 367. When adding a click to an event that already contained that click, the click was being duplicated in the subtable.
- Bug 368. Whistles from the Whistle & Moan Detector no longer show up on the FX display overlay
- Bug 369. Map options not showing up in viewer mode when right-clicking on map
- Bug 370. Rocca crashing when receiving detections from Whistle and Moan Detector
- Bug 371. Rocca loses FFT channel selection when opening params dialog
- Bug 372. Rocca database record incorrectly lists Whistle Classifier file for Clicks
- Bug 373. Incorrect GPS headings in the database are propagated through Pamguard and cause problems with mapping and TMA
- Bug 374. Bearing Errors in Target Motion / 3D Loc' calculations
- Bug 375. Low Frequency Clicks
- Bug 376. Error when using a serialised data map which spans a period of time in which Pamguard modules have changed
- Bug 377. changes to click events in Viewer Mode not getting saved to database
- Bug 378. TMA dialog not displaying current Model type, and unclear when event not selected
- Bug 379. channel boxes cleared when opening Decimator module settings window
- Bug 381. Logger form loses controls when the order is changed
- Bug 382. Click species check boxes get cleared in toolbar when the Click Classification dialog is closed
- Bug 383. Spectrogram max frequency resetting to incorrect value the first time the spectrogram dialog is opened
- Bug 384. Map options dialog loses Whistle & Moan Detector information
- Bug 385. Bug in offline toolbar which will crash if the classifier dialog is opened and then closed with no classifiers specified.
- Bug 386. Click Detector Sweep Classifier sometimes keeping changed settings even when user tries to cancel/discard changes.

The time spent on bug fixes was 10 hours in March, 17 hours in May and 21 hours in June.

New Features

1. Better database troubleshooting when converting from Core to Beta versions, specifically when there are problems matching data units in the database to data units in the binary files
2. More intuitive user interface for Soundtrap import module
3. Expansion of localiser algorithms to work with whistle detections
4. Added ability to export all settings and parameters to an XML-formatted file.

Software Releases

PAMGuard version 1.15.13d and PAMGuard Beta version 2.00.12c were both released in March 2018. The next major release was done in June 2018, and covered Pamguard version 1.15.14 and Beta version 2.00.13. Major development continues in the Beta branch, with the continued view of transitioning this to the main PAMGuard version for all users in 2018. The core branch continues to receive bug fixes, but new development is limited.

Ongoing Developments

There are a number ongoing developments which are important for the long term stability of the PAMGuard software

Preparing for Java 9 and future versions

Changes are going on within the Java graphics packages used by PAMGuard. This means that the current releases of PAMGuard are not compatible with Java 9 and future java releases. The recommendation from Oracle (the company behind Java) is that application software releases should bundle a Java run time environment with the application. This is quite a major change to the way that Java is being used, although some Java based products (e.g. Matlab) already do this. The advantages of this approach are product stability and that users will no longer need to install Java separately from PAMGuard. The disadvantage is that the installer for PAMGuard is going to increase in size and will take up more space on your hard drive. We are working to create new 64 and 32 bit installers which include the jre with the intention of releasing it in early 2019.

Settings File Compatibility Issues

There are some backwards compatibility issues between the current Beta release and earlier Beta releases and Core releases. We are working on the Beta version to change the file type of the psf settings files to .psfx. Our intention is that new PAMGuard releases will always be able to open older psf files, but will save them as psfx files. It will not be possible to open psfx files with older PAMGuard versions.

Downloads

There have been 938 and 214 downloads of Core versions 1.15.13d and 1.15.14 (respectively) between March and June 2018. There have been 45 and 51 downloads of Beta versions 2.00.12d and 2.00.13 (respectively) over the same period. Additionally, there have been 84 downloads of the older Core version 1.15.13 and 7 of Beta version 2.00.12.

Support

The team received and answered 308 support emails during this period. The time spent on support issues was 9 hours in March, 4 hours in April, 36 hours in May and 24 hours in June.