

SeaSonde® Radial Site Application Guide for



Archivalist



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Sept 6, 2006

Archivalist is a utility application for maintaining folders that build up with lots of files. Archivalist will create archived copies of the files while maintaining a limited number of source and archived folders/files (meaning it will delete them as configured.) The SeaSonde Radials Site produces several different types of output files time stamped at various intervals. Archivalist organizes these data folders from filling up with too many files and prevents the hard disk from filling up.

What Archivalist is NOT:

1. Not intended to archive a single file into multiple file archives. It is not meant to archive a fixed filename into one or more recoverable backups.
2. Does not backup the hard disk. While Archivalist will also duplicate the archives to an external volume, it does not synchronize the archives with an external volume. Archivalist is just a maintenance/organization utility. A separate backup utility or periodic copy is required if you want to keep a backup of the data. *It up to the SeaSonde USER to periodically copy their important data and configuration files to a more permanent storage.*

Archivalist runs up to 26 separate archive tasks. Each Archive task has its own name and typically a different source folder to archive (source folder can possibly be the same with different file filter).

When run, Archivalist searches for its settings from Archivalist.plist in the following locations and order.

1. Looks for Archivalist.plist in the Folder where Archivalist is. (It will resolve an alias/shortcut file. Combine site is installed to have an alias point to the CombineConfigs folder. The optional alias file must be named "Archivalist.plist" not "Archivalist.plist alias")
2. If Step 1 fails, then looks in user preferences folder "~/Library/Preferences"
3. If Step 1,2 fail, then looks in RadialConfigs folder.
4. If Step 1,2,3 fail then looks in CombineConfigs folder.
5. If .plist found then looks for .pref in same folder as .plist; otherwise looks for .pref in same sequence as steps 1,2,3,4.
6. If no .plist and no .pref then creates an default .plist (which are all disabled and unnamed archives.)
7. If no .plist but has a .pref then creates a .plist from the .pref in the same location as the .plist. This can be a problem if upgrading from OS9 Archivalist.pref as the OS9 file paths are different from the OS X POSIX paths used.

After the Archivalist.plist is found, it is used to configure the archive tasks. Each enabled

archive task that is set to run when Archivalist first runs is enabled with a ten second delay. This gives you a short time to disable the archiving or quit Archivalist before it start archiving (possibly moving and delete files). You might want to do this because you did not mean to run Archivalist or you want to disable all archive and then examine and/or modify them before enabling all the tasks.

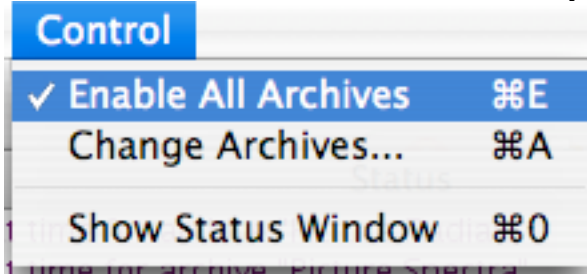
When Archivalist starts, it opens a status window which show where the Archivalist.plist was found, what the archive tasks are and when they are next scheduled to run.



```
0001 Archivalist 11.0.1 Starting
0002 Preferences from /Codar/SeaSonde/Configs/RadialConfigs/Archivalist.plist
0003 The Current Date and Time is 09/06/2006 12:05:45
0004 Archive "Spectra CSQ" every 60.0 minutes at 0.0 minutes after.
0005 Archive "Spectra CSS" after startup.
0006 Archive "Spectra CSA" after startup.
0007 Archive "Radials LLUV Ideal" after startup.
0008 Archive "Radials LLUV Patt" after startup.
0009 Archive "Wave Model" after startup.
0010 Archive "Sentinel Reports" after startup and every 60.0 minutes at 5.0 minutes after.
0011 Archive "RadialConfigs" after startup.
0012 Archive "Diagnostic Reports" after startup and every 60.0 minutes at 0.0 minutes after.
0013 Archive "Picture Radials" every 60.0 minutes at 0.0 minutes after.
0014 Archive "Picture Spectra" every 60.0 minutes at 0.0 minutes after.
0015 Archive "Picture Waves" every 60.0 minutes at 0.0 minutes after.
0016 Archive "Wave Spectra" after startup.
0017 Archive "Wave Spectra Lists" only upon AppleEvent.
0018 Archive "Site Log File" after startup and every 180.0 minutes at 0.0 minutes after.
0019 Cannot also backup "Site Log File" to "/Volumes/CodarArchives/Archives/Logs/Site"
0020 Archive "Classic Radials Ideal" after startup and every 60.0 minutes at 40.0 minutes after.
0021 Archive "Classic Radials Patt" after startup and every 60.0 minutes at 40.0 minutes after.
0022 At 09/06/2006 13:00:00 will archive "Spectra CSQ"
0023 In 10 seconds will archive "Spectra CSS"
0024 In 10 seconds will archive "Spectra CSA"
0025 In 10 seconds will archive "Radials LLUV Ideal"
0026 In 10 seconds will archive "Radials LLUV Patt"
0027 In 10 seconds will archive "Wave Model"
0028 In 10 seconds will archive "Sentinel Reports"
0029 In 10 seconds will archive "RadialConfigs"
0030 In 10 seconds will archive "Diagnostic Reports"
0031 At 09/06/2006 13:00:00 will archive "Picture Radials"
0032 At 09/06/2006 13:00:00 will archive "Picture Spectra"
0033 At 09/06/2006 13:00:00 will archive "Picture Waves"
0034 In 10 seconds will archive "Wave Spectra"
0035 In 10 seconds will archive "Site Log File"
0036 In 10 seconds will archive "Classic Radials Ideal"
0037 In 10 seconds will archive "Classic Radials Patt"
0038 Archivalist Started
```

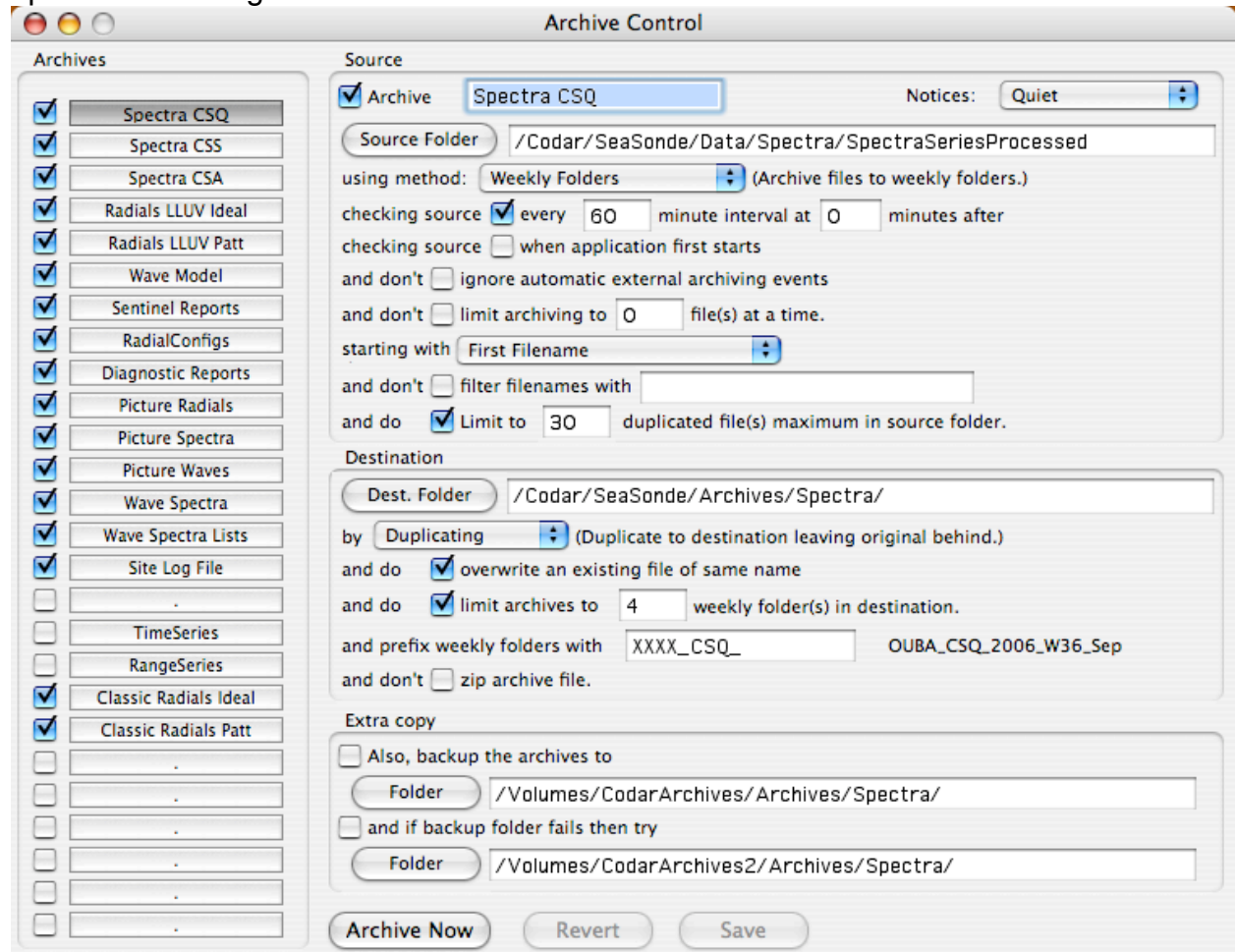
If you wish to immediately disable all the archives temporarily (Individual enabled archives are re-enabled when Archivalist is run again) then either type command-E or

select menu Control and select 'Enable All Archives' item. When menu item 'Enable All Archives' is checkmarked the individually enabled archive tasks are scheduled to run.



Command-E and the selecting the 'Enable All Archives', will toggle between enabling and disabling all archives. The Status window will show when the archives are disabled and enabled.

The archive tasks are configured through the 'Change Archives...' menu item. This will open the following window:

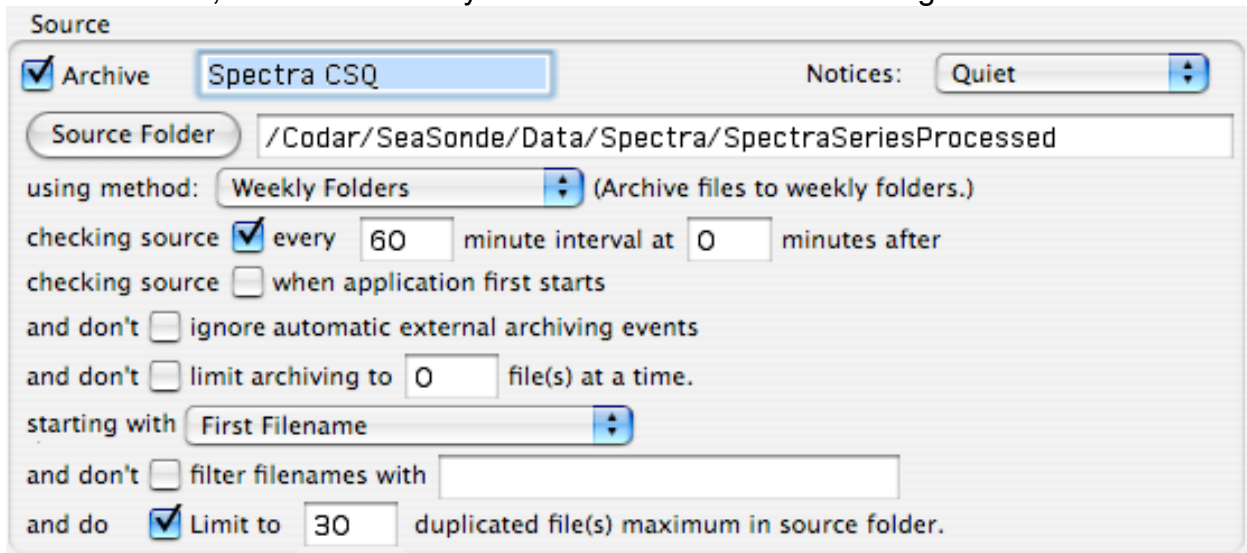


The 26 possible archive tasks are shown on the left. Each one has a check box, which indicates that the task is enabled to run. Clicking on the check box will change the task's

enabled state, which is also saved immediately into the Archivalist.plist file. Clicking on the task name will show its settings to the right of the task names. Only one task setting is shown or edited at a time. The selected task name is hilited (slightly darker background). Once you change a task's settings, you cannot select a new task until you first save the change or revert to the previous setting.

An archive's settings shown to the right of the archive list is segmented into three sections: Source, Destination, and Extra Copy. The sections are layed out to indicate what the task does by reading left to right and top to bottom.

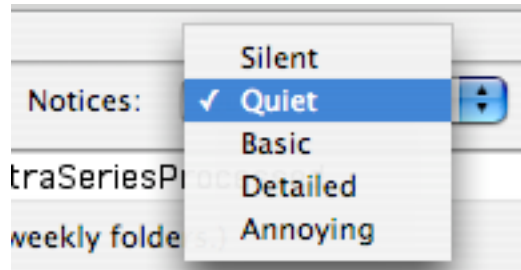
The **Source** section sets the archive enable, name and source location and controls. Candidate files to archive each the task is run, must be in the Source Folder, match the filter filenames, and be within any file number limits in the 'starting with' order.



The **Archive** Check box enables and disables the archive.

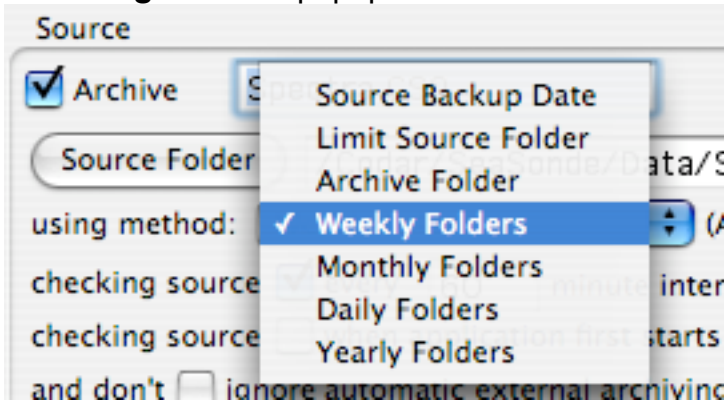
Just right of the **Archive** checkbox is where you can edit the archive name. The name is show in the Archive task list and in the Status window when the archive runs or schedule changes.

The **Notices** popup control how verbose the Status window messages are when the archive runs. Silent will means no messages will be shown. Quiet will show just a few lines of information. Basic will show a few more lines of information and so on.



The **Source Folder** button and edit box is the location of the source folder to archive from. The button pops up a dialog to allow you to navigate to any existing folder. The edit box shows the folder's POSIX style location and can be edited to any location. Archivalist will NOT create this folder if it is missing. If the folder is missing, Archivalist will post a warning message in the Status window when the archive is run or changes schedule.

The **using method:** popup controls which method Archivalist handles the source files.



Source Backup Date will only set the archive file's backup date stamp. This is not very useful, unless you have some other utility or script, which looks for this. The Destination section will empty, since there is no archive destination; the files will remain in the source folder.

Limit Source Folder will just limit the number of files in the source folder; there is no destination archive. The candidate files past the settable file limit (limit entry near bottom of source section) will be deleted.

Archive Folder will archive candidate files to the destination folder. The archive is done one of two ways, by Moving, which copies candidates files over the file limit file to the destination folder and then deletes the source file or by Duplicating, which copies all candidate files and only deletes source files past the file limit. The Duplicate method causes the files under the file limit to exist both in the source folder and destination folder; this way the destination folder is always up-to-date with the latest file.

Weekly Folders will archive files just like Archive Folder except that the candidate files will be archived into weekly sub folders in the destination. The sub folder name format is prefix_yyyy_Www_nnn where *prefix* is the Destination prefix entry, yyyy is the year, ww is the week 01 to 52, nnn is the 3character month or possibly characters for the two months the week crosses. Example 'SITE_CSQ_2006_W35_AugSep'

Monthly Folders will archive files just like Archive Folder except that the candidate files will be archived into monthly sub folders in the destination. The sub folder name format is prefix_yyyy_mm_nnn where *prefix* is the Destination prefix entry, yyyy is the year, mm is the month 01 to 12, nnn is the 3character month. . Example 'SITE_CSQ_2006_09_Sep'

Daily Folders will archive files just like Archive Folder except that the candidate files will be archived into daily sub folders in the destination. The sub folder name format is prefix_yyyy_mm_dd where *prefix* is the Destination prefix entry, yyyy is the year, mm is

the month 01 to 12, and dd is the day of month 01 to 31. Example 'SITE_CSQ_2006_09_06'

Yearly Folders will archive files just like Archive Folder except that the candidate files will be archived into yearly sub folders in the destination. The sub folder name format is prefix_yyyy where *prefix* is the Destination prefix entry, yyyy is the year. Example 'SITE_CSQ_2006'

The next three Source lines control when the archive task runs.

checking source every 60 minute interval at 0 minutes after

If checked, sets the how often in minutes to run the archive. The interval is modulo with minute of day so that 60minutes interval runs on the hour, 120 minutes on even hours and so on. The 'at 0 minutes after' sets how many minutes after the interval time when the task should run. A 120 minute intervals with 60minutes after would be every odd hour of the day. A 60 minute interval with 30 minutes after would be on every half hour (1:30 2:30...).

checking source when application first starts

If checked, tells Archivalist to run the task ten seconds (short pause to allow user to abort), after Archivalist starts up. If the other two task run methods are disabled, then the task will only run once. In a normal SeaSonde setup, where the computer restarts once a day, then the task will run once a day.

and don't ignore automatic external archiving events

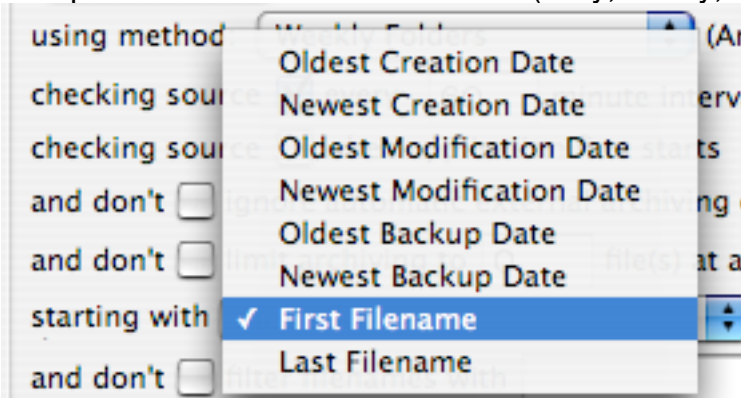
The next to last method of setting the Archive task to run is by posting an AppleScript event to Archivalist telling it to open a file. (The last trigger method is the Archive Now button.) The file's folder is matched against the archive source folder as well as the filename filter to determine which archive to run. If you do not want this archive to trigger by such an event, the check the ignore box. SeaSonde Radial Processing uses this method to tell Archivalist about new Radial, Wave, and Spectra Files.

Only check this next line if you want Archivalist to limit the amount of time it spends on an archive task.

and don't limit archiving to 0 file(s) at a time.

This limits the maximum number of candidate files it will archive each time the archive is run. If you enable this and the limit is smaller than number of new candidate files created before the archive task runs again, the archive might never get up-to-date, causing the hard disk to eventually fill up.

The 'start with' popup sets the archive candidate search order as well as what date stamp is used for archive sub folders (daily,weekly,monthly,yearly) methods.



Oldest Creation Date uses the file's creation date and will archive the oldest file first. When using the Moving method, this will delete the oldest created file over the file limit first. Any archive sub folder will use the file's creation date.

Newest Creation Date uses the file's creation date and will archive the newest/latest file first. When using the Moving method, this will delete the latest created file over the file limit first. Any archive sub folder will use the file's creation date.

Oldest Modification Date uses the file's modification date and will archive the oldest file first. When using the Moving method, this will delete the oldest modified file over the file limit first. Any archive sub folder will use the file's modification date.

Newest Modification Date uses the file's modification date and will archive the newest/latest file first. When using the Moving method, this will delete the latest modified file over the file limit first. Any archive sub folder will use the file's modification date.

Oldest Backup Date uses the file's backup date and will archive the oldest file first. When using the Moving method, this will delete the oldest backup date file over the file limit first. Any archive sub folder will use the file's backup date.

Newest Backup Date uses the file's backup date and will archive the newest/latest file first. When using the Moving method, this will delete the latest backup date file over the file limit first. Any archive sub folder will use the file's backup date.

First Filename uses the first candidate file base on filenames sorted a to z, ignoring case and diacritical marks (Search web for RelString function for specifics on ordering). When using the Moving method, this will delete the first filename file over the file limit first. Any archive sub folder will use the file's creation date.

Last Filename uses the last candidate file base on filenames sorted z to a, ignoring case and diacritical marks (Search web for RelString function for specifics on ordering). When using the Moving method, this will delete the last filename file over the file limit first. Any archive sub folder will use the file's creation date.



If checked, **filter filenames** will only filter filename matching the entered string. '*' asterix will be used as word wild card and '?' question marks will be used as character

wildcards. An entry of 'Rad*' will match all filenames starting with 'Rad' (case insensitive). With no wild cards, the entry is assumed to match if the filename starts with the entry; hence 'Rad' will also match all files starting with 'Rad'. If unchecked, all files will be archive candidates except for '.DS_Store' which is always filtered out.

The last line in the Source section is

and do Limit to duplicated file(s) maximum in source folder.

The text on this line will change to reflect the 'using method:' and the 'by Moving/Duplicating' selections. The meaning of this limit also changes depending on the method. This was covered above, but again

Source Backup Date will leave untouched the candidate files under and equal to this limit. It will set the backup date to the current time of files over this limit.

Limit Source Folder will leave untouched the candidate files under and equal to this limit. It will delete any files over this limit.

Archive Folder, Daily Folders, Weekly Folders, Monthly Folders, Yearly Folders will leave untouched the candidate files under and equal to this limit. It will archive and delete any files over this limit.

The Destination section controls where the archive goes.

Destination

Dest. Folder

by (Duplicate to destination leaving original behind.)

and do overwrite an existing file of same name

and do limit archives to weekly folder(s) in destination.

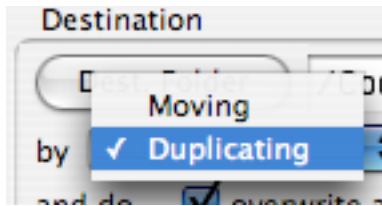
and prefix weekly folders with OUBA_CSQ_2006_W36_Sep

and don't zip archive file.

The items that are not pertinent for the selected 'using method:' will not show.

The **Dest. Folder** button and entry sets the archive destination location. This is where archive files will be copied to. The button pops up a dialog to allow you to navigate to any existing folder. The edit box shows the folder's POSIX style location and can be edited to any location. If the folder is missing when the archive runs, it will be created. It is not recommended to specify a removable external volume. This is not a backup utility; if the volume is disconnected the file will not be archived. (See the Extra Copy section for backing up to a external volume.)

The **by** popup selects the archive copy method to use.



The *Moving* method copies all candidate source files past the source file limit to the archive folder and if successful deletes the original

The *Duplicating* method copies ALL candidate source files. Source files past the file limit are deleted only if the file was successfully duplicated first.

and do **overwrite an existing file of same name**

If checked, *overwrite* will replace a previous archived file if the source changed or a new source file appears. The Duplicate method will check the modification and creation dates as well as file size if not zipping.

and do **limit archives to** **weekly folder(s) in destination.**

If checked, this *limit archives* files or sub folders depending on 'using method' Be careful to set this limit so that the hard disk does not completely fill up.

and prefix weekly folders with

This entry sets the sub folder name prefix. If the prefix contains '_XXXX' or 'XXXX_', archivalist will search for the SeaSonde site name and replace it. The text to the right shows the example sub folder name using the current date.

Archivalist looks for the site name by:

1. Looks for CombineSite.opt file where Archivalist is. (can be an alias). It will use the first line first parameter for site code to replace the XXXX in the prefix.
2. Looks in SeaSonde Combine site /Codar/SeaSonde/Configs/CombineConfigs/CombineSite.opt. It will use the first line first parameter for site code to replace the XXXX in the prefix.
3. Looks in SeaSonde Radial site /Codar/SeaSonde/Congifgs/RadialConfigs/Header.txt. It will use the second parameter in the first line for site code to replace the XXXX in the prefix.
4. If none of the above is found the XXXX will remain in the sub folder name.

and don't **zip archive file.**

If checked, will zip the archive files. This requires running on OS X 10.4 or later as it uses /usr/bin/zip to zip the file. The archive zipped file will be the same filename as the source ending with a '.zip' extension.

The **Extra Copy** section provides a backup option to an external drive.

Extra copy

Also, backup the archives to

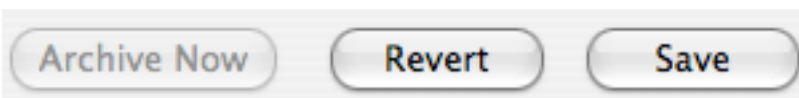
Folder /Volumes/CodarArchives/Archives/Spectra/

and if backup folder fails then try

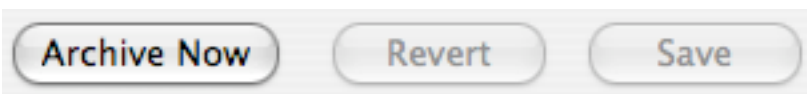
Folder /Volumes/CodarArchives2/Archives/Spectra/

When checked, candidate archive files are also copied to the specified folder. This copies obeys the overwrite check box and subfolder settings, but does not limit the folders. It will keep going until the volume fills up. If the second checkbox is checked, then it will automatically try to use the second location. This allows for two possible external drives to be used so that you can ping pong between them; taking one to backup somewhere else and return to be reused again at the site.

Any change to the archives settings will result in enabling the Save and Revert buttons, while disabling the Archive Now button. You also, cannot select a different until you click Save or Revert. The Save button makes the changes permanent and updates the Archivalist.plist file. The Revert button will the changes to the previous saved values.



A Save or Revert will disable the buttons and enable the Archive Now button. Select an archive and click Archive Now to immediately run the archive task.



Click on the window's close button to close the Archives dialog.

Archivalist.plist

Once a minute, Archivalist will check Archivalist.plist. If it changes or is replaced, then the new Archive settings will be automatically loaded and scheduled if enabled.

AppleScripting:

```
tell application "Archivalist"  
  open POSIX file "/Codar/SeaSonde/Data/Radials/RadTest"  
end tell
```

From Unix command line:

```
/usr/bin/osascript -e 'tell application \"Archivalist\" to open  
POSIX file \"/Codar/SeaSonde/Data/Radials/RadTest\"'
```