



## Radial Suite Release 6

### What's New

#### New RadialWebServer

Provides a very convenient status and data viewer to the radial site using your favorite internet browser. You can view and download status, cross spectra, radials, and waves.

Requires a static IP or other internet accessible URL to the site with an open port through any existing firewall.

Even if you don't have an internet connection or disable it, you can still use the RadialWebServer on the machine with Safari.

#### New Radial Alerts

A new RadialSiteReport tool runs once a minute to check the computer, the applications, the receiver, the transmitter, and the data in order to give notice about problems with the site. These alerts are an integral part of the RadialWebServer Status, plus they can be emailed to you when one or more alerts are tripped or cleared. These alerts are also stored in a weekly log file.

#### Radials

Measured and Ideal Pattern Radials are now saved in subfolders MeasPatterns and IdealPatterns instead of the Radials folder. This means that Combine Site File Transfer needs to be redirected to the new folder.

Short-Time Radials are always calculated using 1 degree pattern. The new SeaSondeRadialSetup will interpolate existing 5 degree patterns to 1 degree using a cubic spline. While it is possible to bypass SeaSondeRadialSetup, the SpectraToRadial tool, if necessary, will still interpolate to 1 degree using a linear method. The final output radial is selectable to be either 1 or 5 degree output. Spatial calculations are always done over a 5 degree sector for each vector. For new patterns or reprocessing you Loop files, please use CrossLoopPatternner to create a 1 degree output.

Doppler Interpolation is now used as the default. SeaSondeRadialSetup will ask to turn it on if you upgrading a previous setup. Doppler Interpolation is done in the SpectraToRadial tool, creating twice as many doppler points using linear interpolation, from which radials are calculated. This typically produces another 10 to 15 percent increase in radial vector solutions.

Classic Radial format is obsolete; It is possible to still output them yet, but they are not officially supported. There is no documentation or mention in the install guides of the classic radial format.

LLUV Radials contain a new key %LLUVTrustData: all %% all lluv xyuv rbvd  
This key allows for some quick hand editing of any LLUV file or editing that modifies only certain parts of the data. This key tells the SeaSonde software readers (SeaDisplay, CtfRadialer, LLUVRepair, RadialAdjuster) which part of the LLUV file to use. The 'all' value tells the read to trust all the lon,lat,u,v,x,y,r,b,v,d data in the file.

## CSA Spectra

CSA Spectra are now put into their own folder Spectra/SpectraAveraged instead of sharing the SpectraProcessed folder with CSS Spectra. These files are useful for trying to adjust the First Order Lines settings in SpectraPlotterMap as they represent a closer approximation of what AnalyzeSpectra is using.

## RealTime Images

Previously, if you wanted real-time plot images of the radials, waves and possibly spectra, you needed to have RadialDisplay, WaveDisplay and/or SpectraPlotterMap started up as log in items. The processing script would then send these application an apple event tell them to open the current file. This older method made it hard for a use to view other data at same time and the plots were dependent on how the application was configured. With Release 6, these applications no longer need to be running. New SeaDisplay, WaveDisplay, and SpectraPlotterMap now also contain a command line tool which is used by the RadialWebServer and AnalyzeSpectra to create plot images. New images are in png format as this is much nicer than fuzzy jpg. Please read the RealTimeImage document for more information.

## Configuration Files

Sentinel.plist has been moved to the RadialConfigs folder. If upgrading, the previous Sentinel.plist in RadialTools/Sentinel\_Prefs will be delete after archiving. The Sentinel.plist is now installed automatically by Sentinel itself when it runs and detects that the plist is missing. Sentinel.app actually contains default startup plist for Combine and Radial Sites.

Archivalist.plist default is now installed by Archivalist itself when it runs and detects that the plist is missing. The Archivalist default plist has changed to support folder changes for Release 6. You might have to fine tune the settings for your site if the site's hard disk is smaller than the recommended size.

## SeaSondeRadialSetup

SeaSondeRadialSetup has some major changes. It is now clearer on the basic settings needed for a new site. The frequency and range step should now be entered here instead of using SeaSondeController. Use the Detailed settings to change the doppler and range cells used by SeaSondeAcquisition and CSPro.

## SeaSondeController

SeaSondeController will now require a SeaSondeController.plist. If it doesn't find one, it will stop with an alert dialog and ask you to use SeaSondeRadialSetup to install one (or you could tell SeaSondeController to install it's generic plist, but you should really use SeaSondeRadialSetup to get the correct plist for the receiver in use.)

SeaSondeController will now work without a receiver attached. This means that the system can be configured and stored without a receiver and when the receiver is next found, SeaSondeController will automatically configure it to the stored settings.

## SeaSondeAcquisition

SeaSondeAcquisition will now require a SeaSondeAcquisition.plist. If it doesn't find one, it will stop with an alert dialog and ask you to use SeaSondeRadialSetup to install one (or you could tell SeaSondeAcquisition to install it's generic plist, but you should really use SeaSondeRadialSetup to get the correct plist for the receiver in use.)

SeaSondeAcquisition will still acquire data if menu is left pulled down.

## CSPro

CSPro now uses a .plist file.

## Extras

In the Tools folder is an Extras folder. This contains some useful apps which can convert LLUV, Pattern, Track files into KML format to be plotted on GoogleEarth.

## Bin

In Apps folder is a new Bin folder which is contain strictly command tools  
SeaSondeSiteReporter tool generates the site alerts.

LLUVMerger is used by SeaSondeSiteReporter to create a 25hr merged radial.

LLUVMerger is capable of merging any set of LLUVs (Radial, Elliptical or Totals) in a variety of ways.

GetVersion is used by SeaSondeReports to list all the application version info.

LLUVCutOff can apply a max velocity and/or angseg filter to any LLUV file.

## Waves

The latest wave model tools are included. Recent updates add the number of doppler point used as well as a new doppler threshold in Header.txt config.

WaveSpectra tools have been obsoleted are no available with this Release.

WaveDisplay can now plot 4 different datum or 4 different ranges simultaneously.

## SeaDisplay

SeaDisplay has been rewritten. It is much friendlier. SeaDisplay now replaces RadialDisplay on Radial Sites. Optionally drag a radial onto the map window to open. One click distribution plot. Easier movie output.

SeaDisplay application bundle now include a command line tool for create plot images of radials. This is used by the RadialWebServer as well as the real-time images during processing.

SeaDisplay uses a newer site map file format which is now a document bundle. (A document bundle is a folder which contains a group of files for a specific purpose. They show as single file object but can be looked into by right clicking on the document icon.) SeaDisplaySetup can convert older SeaDisplay\_Site maps into the new .smap format.

### SeaDisplaySetup

SeaDisplaySetup now starts with a world map view where you can zoom into any location.

A new MapDataBase is required. The Release5 and earlier MapDataBase will not work with this version; it will load, but you will not see any coastline.

### SeaSondeReports

Now records version information for all SeaSonde Apps.  
Now records sitemaps for the site.

### SpectraShortener

The application bundle also contains a command line tool for reducing or expanding cross spectra. The RadialWebServer uses this.