Subject: New RSS version 2.7.2 From: Jim Sky <radiosky@radiosky.com>

Date: 12/11/2015 16:56

To: Richard Flagg <rf@hawaii.rr.com>, Wes Greenman <jupgazer@windstream.net>, Francisco Reyes <reyes@astro.ufl.edu>, Baptiste Cecconi <baptiste.cecconi@obspm.fr>, "Whitham D. Reeve" <whit@reeve.com>, Dave Typinski <davetyp@typnet.net>, Jim Brown <starmanjb@gmail.com>, Andrew Mount <capeorion@gmail.com>, Jim Thieman <james.r.thieman@nasa.gov>, Chuck Higgins <chiggins@mtsu.edu>, "Fung, Shing F. (GSFC-6730)" <shing.f.fung@nasa.gov>, Thomas Ashcraft <ashcraft@heliotown.com>

http://radiosky.com/spec/Spectrograph_Update_2_7_2.exe

-Added support for SNTP time correction. Options / Atomic Clock

- -Time corrections now in metadata.
- -Fixed problems with Correction Files
- -Sampling for period for creating correction files adjustable.

-Re-arranged menus.

-Fixed bug where files saved in Client Mode could have wrong

number of channels.

-Fixed bug the warns about "noise blanker".

-The ability to update the program by Help/ Check for Updates and double-clicking the update you want in Spectrograph News.

Hi Folks,

The sooner we begin verifying our clock accuracy the better.

Turn on the "Atomic Clock" under Options. If it is hidden, go to View / Show Atomic Clock to make it visible. If you use another program to do the time corrections then <u>uncheck the **Auto Adjust**</u> checkbox on the SNTP Clock Client. To determine how often you should update the clock I would see how much it drifts in a day and what kind of difference you get when checking the clock multiple times sequentially. So if you see an average of about 20 ms difference in the retrieved times I would calculate how long it takes the clock to drift about twice that amount (40 ms).

Radio-Sky SNTP Clock Client 1.0.10	
File Options Log	
N11 Version = 4 Stratum = 3 Precision = 2^-23 sec. Ref ID = 192.168.0.6 Last Server Sync = 12/11/2015 21:29:25.278 Orig TimeStamp = 12/11/2015 21:38:37.670 Receive TimeStamp = 12/11/2015 21:38:37.670 Receive TimeStamp = 12/11/2015 21:38:37.6 Transmit TimeStamp = 12/11/2015 21:38:37.6 Difference: -0.042 secs. Difference: -0.042 secs. Suggested Correction: -0.042sec.	Auto Adjust
Time retrieval succeeded.	12/11/2015 4:39:23 PM
NTP Pool	

Since we do not use timestamps, it is very important to have a very accurate computer clock when the data starts and finishes. We assume an even data collection rate which is pretty certain if you are using a FSX type receiver.

--Jim Sky http://radiosky.com