

Software Defined Radio

"It's all about the software!"

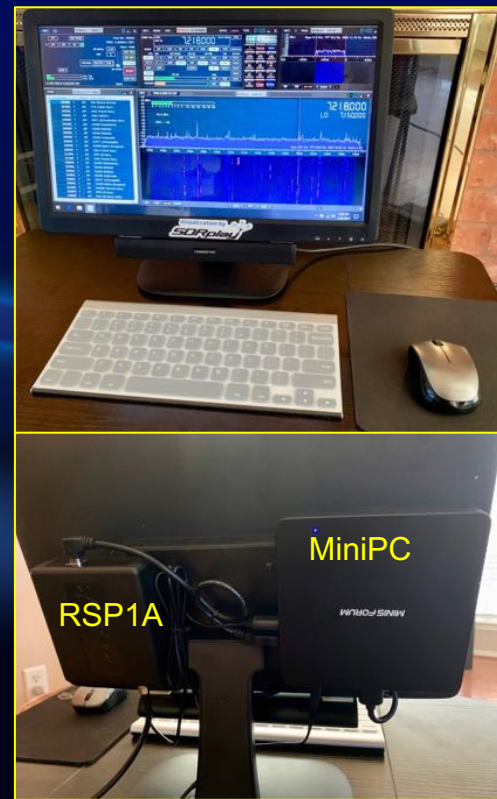
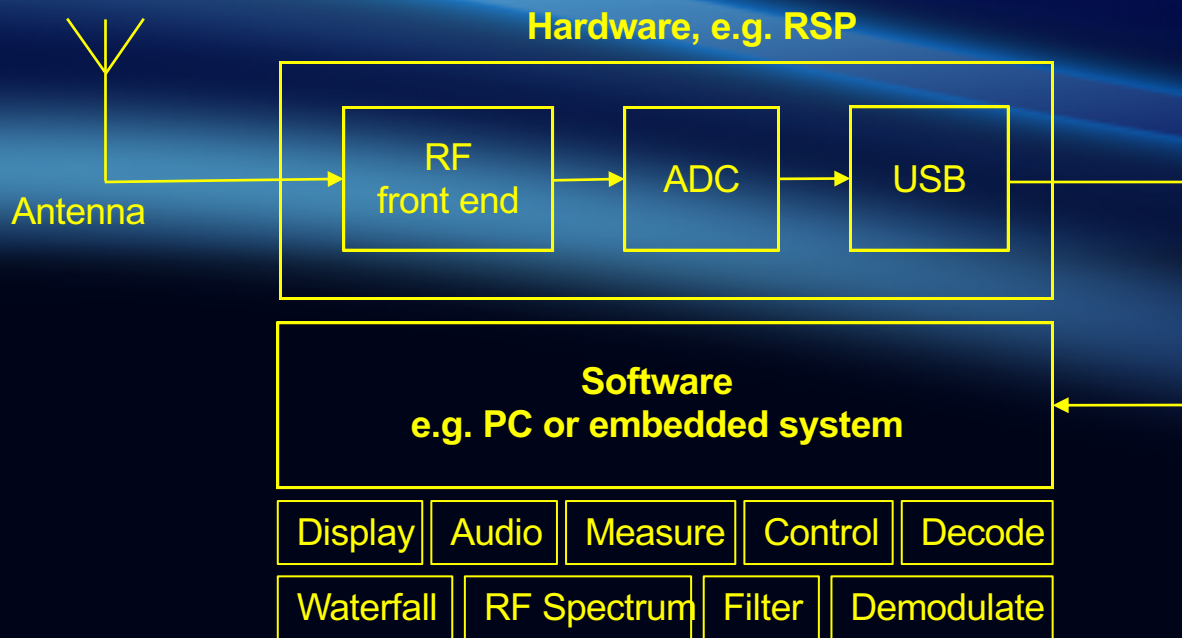
ORLANDO
HamCation
Special Edition

Steve
Brightman KI5ENW

SDRplay

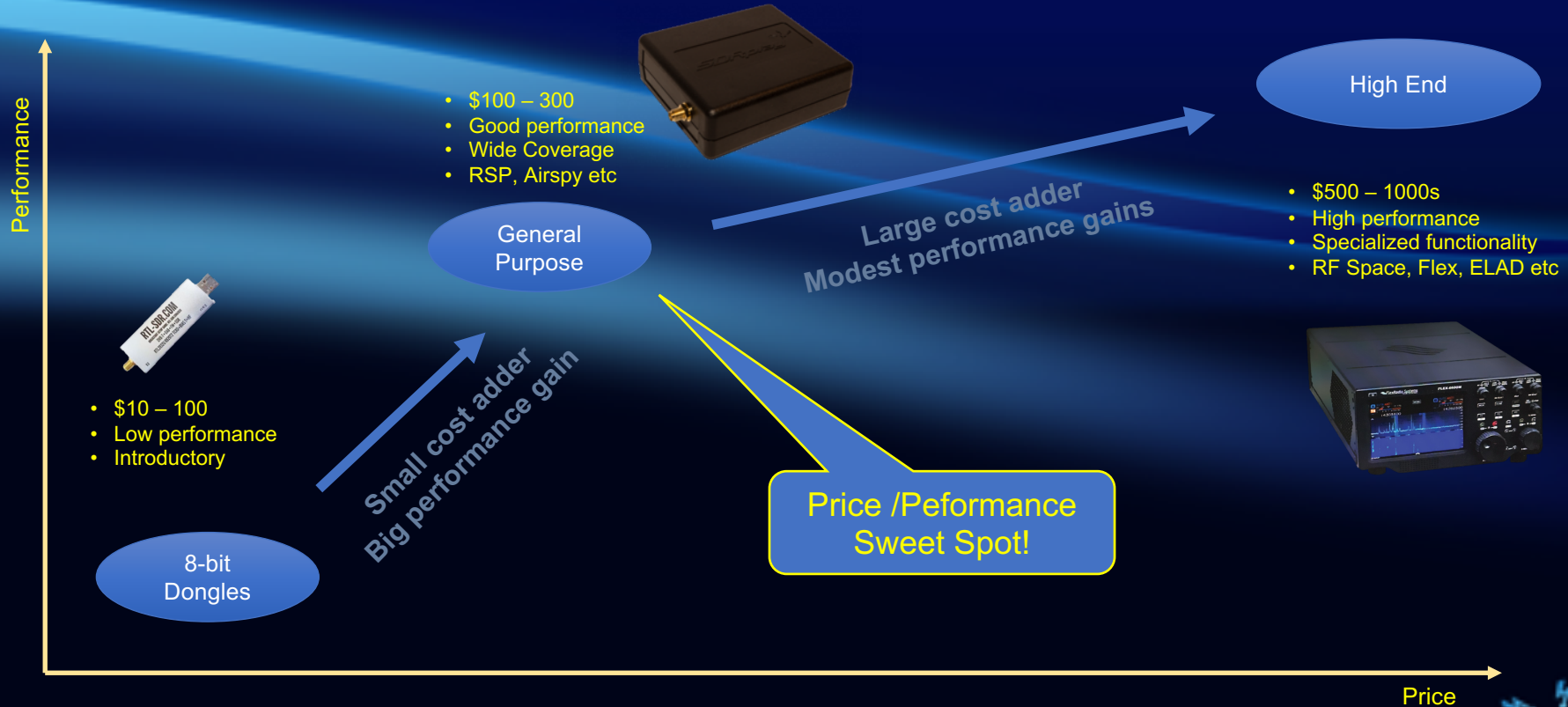


Simplified SDR Block Diagram

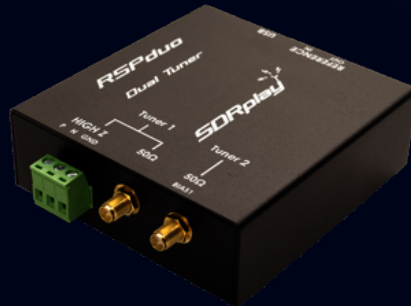
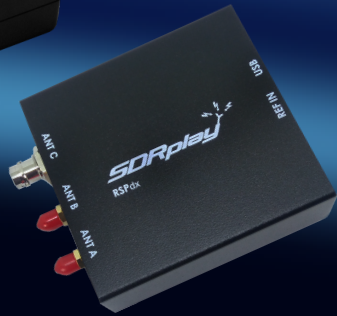


Example implementation

Hardware Options - SDR Variety



Hardware Options - RSP Family



Family Characteristics:

- Continuous SDR coverage from 1kHz to 2GHz
- Receive, monitor and record up to 10MHz spectrum
- Visualise signals in multiple bands
- Use as a stand-alone general coverage receiver, or as a panadapter

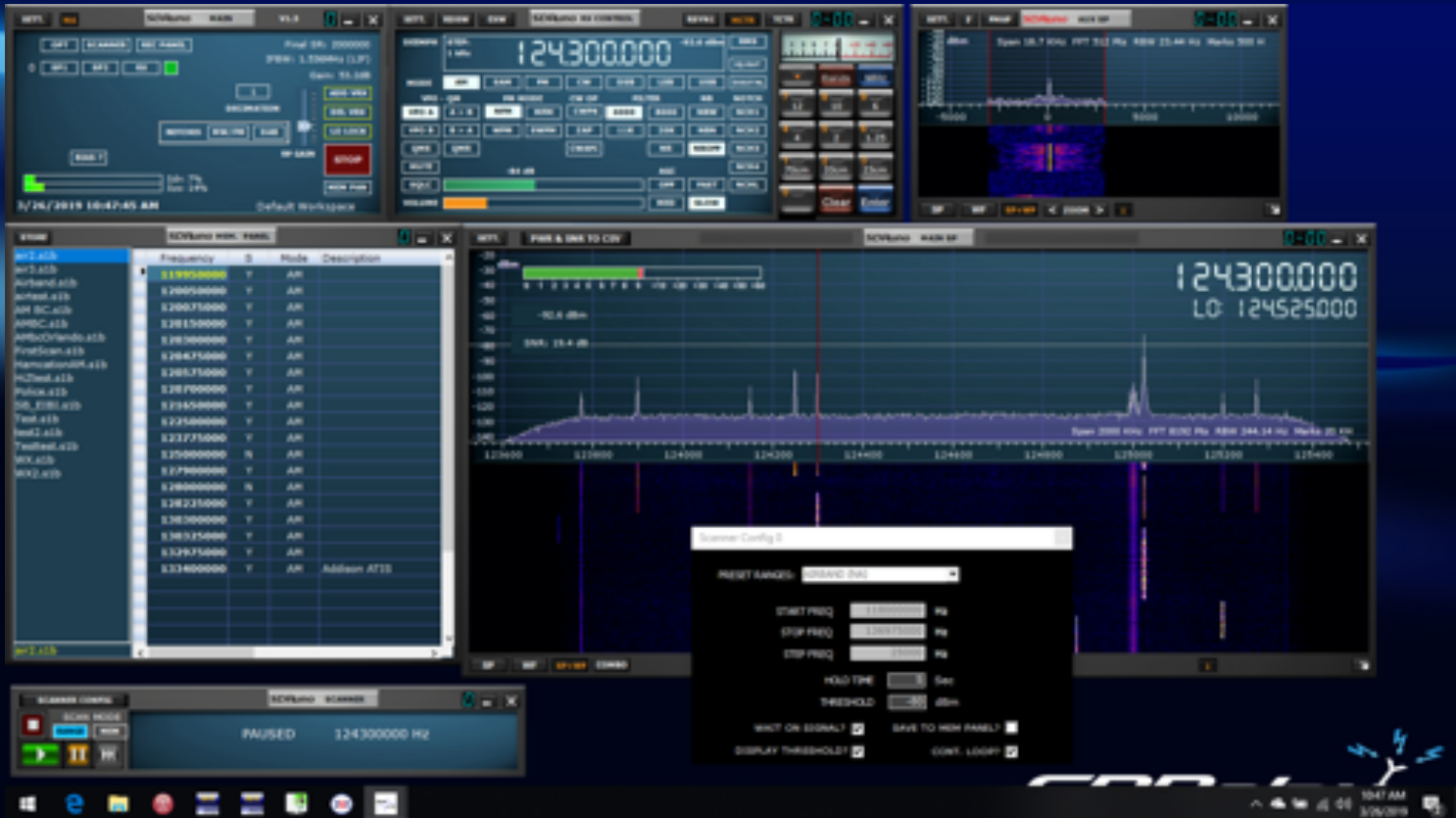
RSP1A - Economy and Performance
- Single Tuner, single input

RSPdx - Single Tuner, Multiple Inputs
- Enhanced Rx below 2 MHz

RSPduo - Dual Independent Tuners
- Multiple inputs
- Diversity Tuning



Software - SDRuno Full-featured SDR Software



Software Flexibility - Output to multiple 3rd party decoders

The screenshot displays the SDRplay software interface, which is a multi-window application. The main window shows a digital display of the frequency 14095.6 MHz. Below this, there are several smaller windows, each displaying a different third-party decoder. The decoders are arranged in a grid-like fashion, with some windows overlapping others. The decoders are running on a Windows operating system, as evidenced by the taskbar at the bottom of the screen. The taskbar shows various icons, including the Start button, Internet Explorer, and several other applications. The system clock in the bottom right corner indicates the date and time as 11/04/2017 3:06:39 PM.

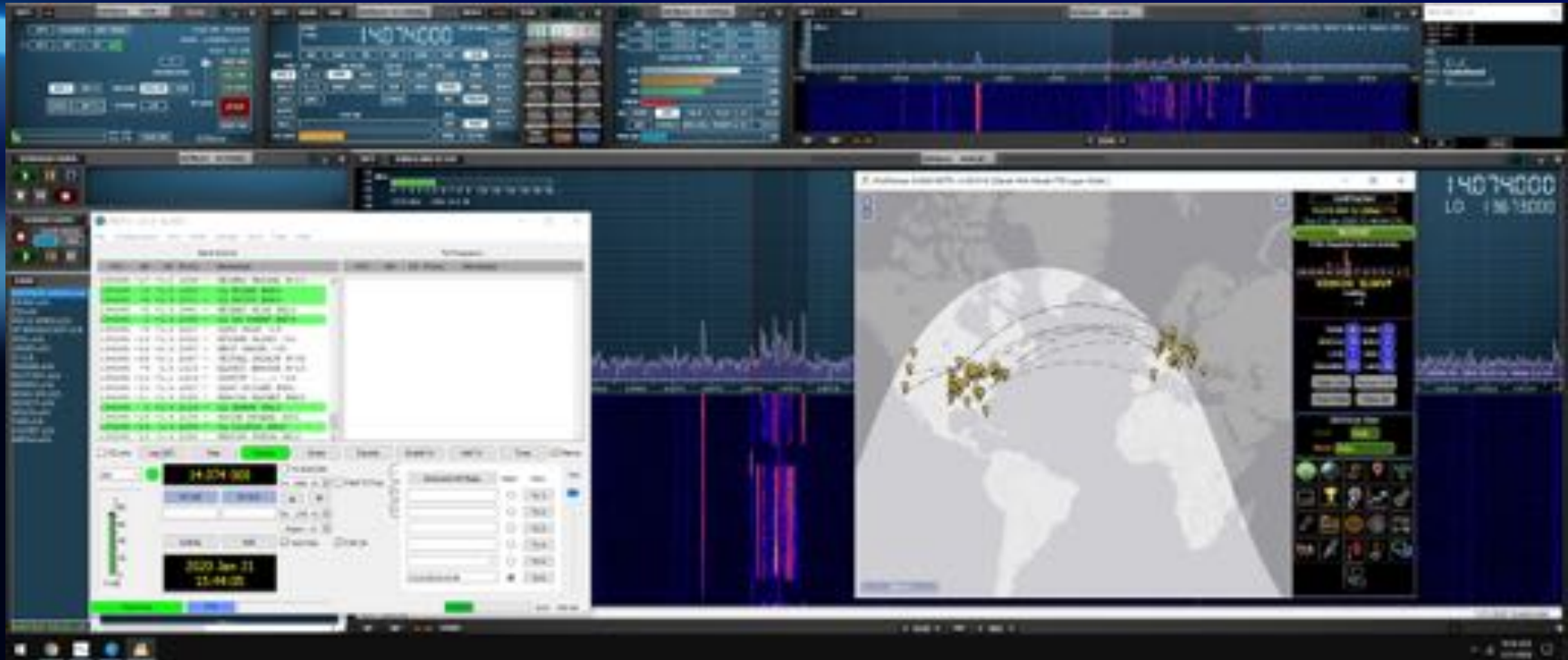
The decoders shown include:

- WSD-PC (Windows Decoder)
- WSD-X (Copy v1.1.1 by KJT)
- WSD-X (Copy v1.1.1 by KJT)

The WSD-X decoder windows display a table of decoded signals, including the following data:

UTC	dB	DT	Freq	Beats	Call	Grid	dBm	Mod
1504	-16	2.1	14.097075	0	WSDX	1407	20	632
1504	-12	0.6	14.097085	0	WSDX	1408	33	1876
1504	-16	0.7	14.097096	0	WSDX	1407	37	1767
1504	-9	2.9	14.097097	0	WSDX	1408	23	1846
1504	-24	0.6	14.097126	0	WSDX	1407	37	1767
1504	-22	0.6	14.097150	0	WSDX	1408	23	1846
1504	-17	0.7	14.097153	0	WSDX	1408	23	1846

Example - WSJT-X and GridTracker



WSJT-X: <https://physics.princeton.edu/pulsar/K1JT/wsjsx.html>

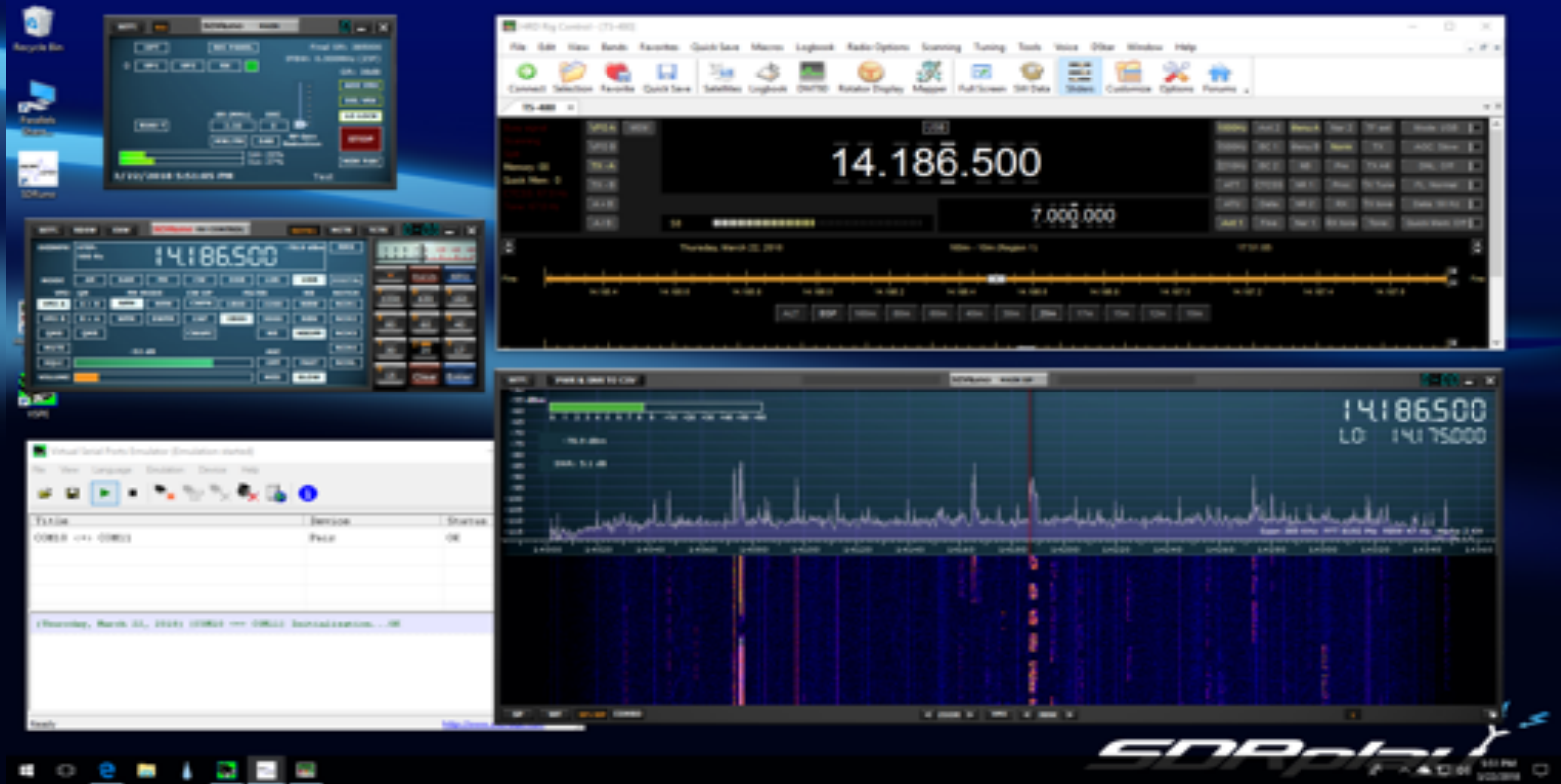
Credit: Mike Ladd, KD2KOG

GridTracker: <https://tagloomis.com/grid-tracker/>

www.sdrplay.com



Example - Ham Radio Deluxe



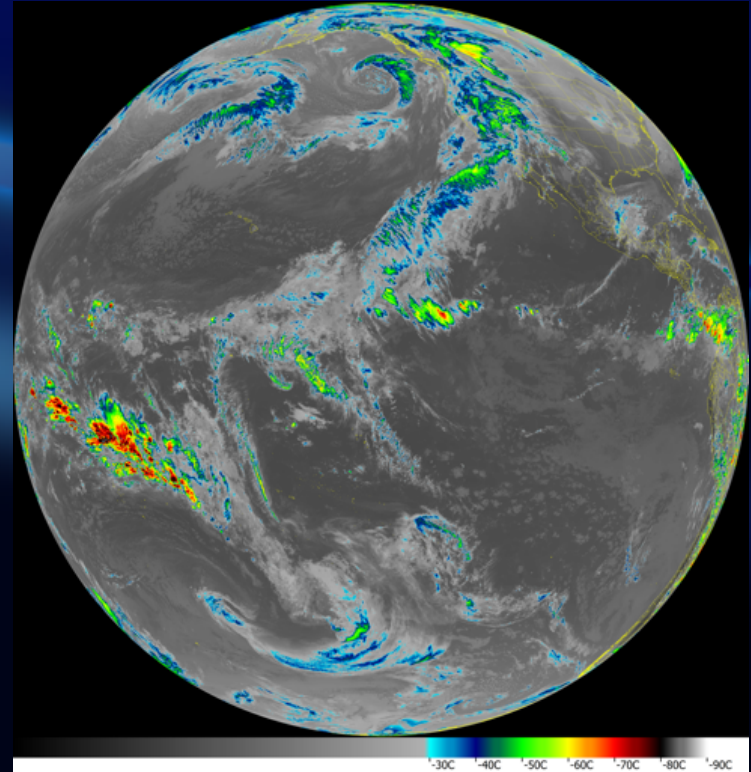
Ham Radio Deluxe:
<https://www.hamradiodeluxe.com/>

www.sdrplay.com

Credit: Steve Brightman, KI5ENW



Example - High Resolution Satellite Imagery



Credit: Bern Bareis

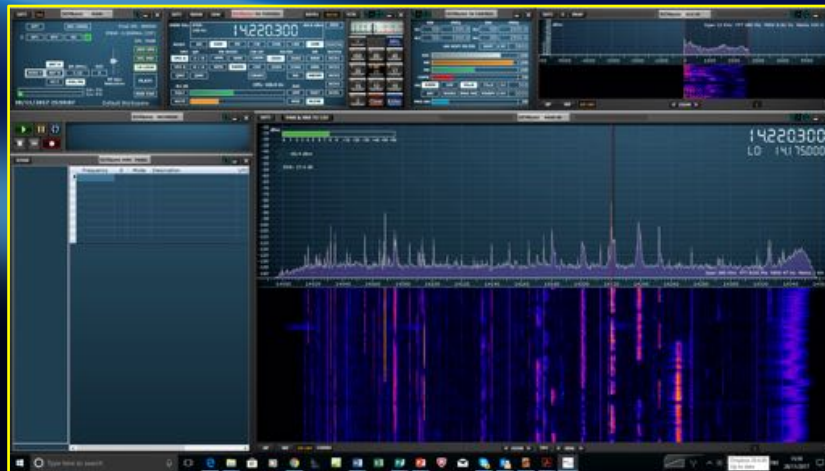
www.sdrplay.com



RIG



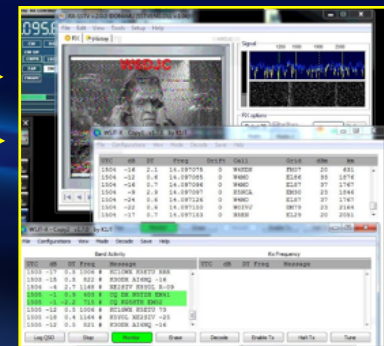
SDRuno



RSP



3rd Party Software



Digital Decoders

- Voice
- Text
- Images

Loggers
Annotators
Databases



New Feature - Plugins

- SDRplay or Community Developed
- Open Source
- Enhanced functionality:
 - DX cluster
 - Audio Recorder
 - MUX output
 - DAB
 - Frequency Annotation (FRAN)
- Simplified interface to 3rd party software:
 - Black Cat Systems
- Hardware interface:
 - Contour Shuttle



DX Cluster



Audio Recorder



FRAN



SDRplay

Black Cat Systems



Contour Shuttle



Summary

- For any given hardware configuration it is the software that allows you to realize the maximum potential.
- SDRuno is a great choice for fully exploiting your RSP hardware
- The new plug-in feature allows even greater flexibility:
 - The user community can provide enhanced capabilities
 - Third party software developers can simplify their interface to SDRuno
 - <https://www.sdrplay.com/plugins/>
- Further feature enhancements are being worked on at SDRplay
 - Visit [SDRplay.com](https://www.sdrplay.com) to stay up to date



For more information

- Company website: www.sdrplay.com
 - Check out the **Applications & Support Catalog** at:
<https://www.sdrplay.com/apps-catalogue/>
- User Forums: <https://sdrplayusers.net>
<https://groups.io/g/SDRPlayUsers>
- Email: support-usa@sdrplay.com
- Facebook: [SDRplay](#) and [SDRuno](#) specifically
 - Independent groups run by enthusiastic users!
- **Where to purchase?**
 - Ham Radio Outlet (US): <https://www.hamradio.com>

Show Specials

