SmartSDR™ for Windows v1.5.1 Release Notes

October 6, 2015

SmartSDR for Windows v1.5.1 is a general release intended for use with the FLEX-6300™, FLEX-6500™, FLEX-6700R™ and FLEX-6700™ software defined radios.

What's New in SmartSDR for Windows v1.5.1

SmartSDR for Windows v1.5.1 is a general release that includes a new feature and addresses two defects identified in previous versions of SmartSDR for Windows. Please consult the SmartSDR Software Users Guide for details on using the new and updated features of SmartSDR for the most optimal operating experience.

A cumulative and inclusive **ChangeLog.txt** file along with other ancillary documentation can be found in the Program Files\FlexRadio Systems\SmartSDR\Documentation folder.

Slice Noise Blanker (NB): In response to customer feedback reading the effectiveness of the WNB on less correlated pulse type noise, a slice or narrow bandwidth noise blanker (NB) has been added to SmartSDR for Windows. The "NB" noise blanker will not remove noise visually from the spectrum display, but operates only on the demodulated slice receiver audio. For complex correlated noise sources, using the WNB, NB or a combination of both may be employed to mitigate pulse type noise. To enable the NB, select it from the slice DSP menu and adjust the NB threshold to an appropriate setting.

TX Distortion Issue: In a small number of FLEX-6300s, a random timing defect which resulted in data corruption between the FPGA and main processor manifested itself as distorted transmit audio. Once the data was mis-aligned, data alignment would not recover without rebooting the radio. Root cause analysis determined that the defect was inherent in all FLEX-6000s, but reviled itself more easily in the FLEX-6300. In this version of SmartSDR, additional constraints have been added to the FPGA to prevent this fault from occurring on all radio models.

Frequency Calibration Issue with the FLEX-6300: A frequency calibration defect specifically related to the FLEX-6300 that would produce incorrect results has been corrected.

Important Release Details

- Since this release corrects a level 1 defect, FlexRadio Systems strongly recommends you uninstall SmartSDR v1.5.0 at your earliest convenience and install and use SmartSDR v1.5.1 going forward until the next release.

- If you want to uninstall older versions of SmartSDR, it is recommended that you uninstall older versions **before** installing SmartSDR v1.5.1. Uninstalling previous SmartSDR versions after installing the latest version may in some cases adversely affect the operation of SmartSDR CAT and DAX. It is recommended to retain the latest previous version of SmartSDR in case you desire to revert to a previous version.

- It is not necessary or recommended to uninstall the DAX and FlexVSP drivers for this release of SmartSDR for Windows.

Known Issues

1. In some situations the FlexControl will choose a COM port that has already been assigned by a virtual COM port or other device. It may be necessary to move the FlexControl to a different COM port and disconnect/reconnect the FlexControl to resolve this issue. Follow these instructions: https://helpdesk.flexradio.com/hc/en-us/articles/202479329-How-to-Change-the-Com-Port-Assignment-for-a-FlexControl
2. FLEX-6700 only: There is a known issue (#280, #1527) where changing bands on one panadapter may change the frequency of another panadapter when going to or from 2m (or a XVTR using 2m as an IF). This happens due to hardware constraints that require each Antenna to be on only one of 2 possible Nyquist zones (below or above 122.88 MHz) and an interaction with persistence when recalling the antenna selection of the selected band. One way to work around this issue is to use the Band buttons instead of setting the Antenna on the Panadapter or Slice, and then entering the desired frequency into the Slice in order to tune into (or out of) the 2m band (or a XVTR using 2m as an IF).
3. There is a known issue where the ATU can fail to tune if TX Delay is set longer than 30 ms. (#926)

SmartSDR Documentation Available at www.flexradio.com

SmartSDR for Windows Software User's Guide
http://www.flexradio.com/downloads/smartsdr-software-users-guide-pdf/

FLEX-6000 Signature Series Hardware Reference Manual
http://www.flexradio.com/downloads/flex-6000-hardware-reference-manual-pdf/

FLEX-6000 Signature Series Quick Start Guide
http://www.flexradio.com/downloads/flex-6000-family-qsg-single-page-pdf/

SmartSDR CAT User Guide
http://www.flexradio.com/downloads/smartsdr-cat-user-guide-pdf/

Obtaining Technical Support

If you encounter any issues installing or operating SmartSDR v1.5.1 with FlexRadio Systems' Signature Series software defined radios, please use our on-line Community (https://community.flexradio.com/) for to query for information about SmartSDR and the FLEX-6000. If you need assistance using the Community, please refer to the community topic "How to use the FlexRadio Systems Support Community".

If you are unable to find an existing answer to your issue on the Community, please contact FlexRadio Systems technical support by opening a HelpDesk support ticket on-line at
https://helpdesk.flexradio.com/

For details on how to submit a HelpDesk support ticket, please refer to the following URL:
https://helpdesk.flexradio.com/hc/en-us/articles/202118688-How-to-Submit-a-Request-for-Technical-Support.

Hours of Operation: Our Technical Support engineers are available Monday-Friday from 9:00am-5:30pm Central Time. If you contact Support after business hours, on a holiday or weekend, we will respond to your request for assistance during regular business hours in the order your HelpDesk ticket was received.

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