Sage 96x SW release note for 20191213

The trasient impulse noise count under the analog interface needs to be delayed for 100 ms so as not to measure the instrument's own transients caused by the relay switches and the internal auto-calibration process.

Sae 96x SW release note for 20190321

When the GUI SW was straddled across two screens of differing resolutions, and the GUI was closed, then erroneous display positions would be recorded in the registry file which will affect the next launch of the SW. The display will be either too big or two small (portions chopped off). This has been fixed in this release.

Sage 96x SW release notes for 20171025

In all previous releases, during the BERT test using Alternating Loop codes, the SW has assumed the loopback device will also loop bach the alternating loop code in addition to the original BERT test pattern. In real world, the loop code may not be looped back, so this version accomodates this situation.

Sage 96x SW release notes for 20171010

1. Fixes a longevity issue with the Auto-Responder feature.
2. Reverfied the Alternate OCU loop code and test pattern.

Sage 96x SW release notes for 20170831

1. Inside the MoIP test, sends the round-trip-delay test data field to the PASS server.
2. On the HTML UI for MoIP test, fix the problem of not displaying the first NF-gain field. It was permanently displaying "N/A" although there is valid test result.
3. On the PASS server and Client SW, adds the round-trip-delay field for MoIP test. On the MoIP criteria part, merges the "+FrameSlip" and "-FrameSlip" fields into one, and then use the vacated "-FrameSlip" field to designate criterion for the "Round-trip-delay".

Sage 96x SW release notes for 20170710

In late 2016, we added special signalling tone sending ability to the digit sender (such as sending various busy tones). The character "K" was chosen to represent "US Ringing back" tone. Unfortunately, this created conflict the "KP" digit inside MF digit sequence. In this release, the "US Ringing back" tone is changed to character "Q" to avoid conflict with the MF "KP" digit.

Sage 96x SW release notes for 20170613

In SIP responder mode, there are cases when Sage 960B sends the final 200 OK to answer the call, but the SIP server never resplies with "ACK" to connect the call. In this version of SW, if a user sets the "Number of Byes" under the SIP Advanced setting to 6, then 960B will send 3 "200 OK"

messages and start sending the RTP audio stream regardless whether or not the "ACK" is received.

Sage 96x SW release notes for 20170526

1. For the remote units that still use the "older" VGX host hardare with the "older" ethernet DSP board, the DSP version did not match, and the mis-match may cause the older ethernet board not booting up when in remote mode (CLI or HTTP mode). This version fixes the issue.

2. Re-enable the SIP background message handling that was disabled for the past month. The background process handles any incoming SIP messages before any SIP tests are started, or any supervisory SIP command such as "OPTION". When command "OPTION" arrives, this new version SW will respond back with "200 OK". When an "INVITE" comes in before any SIP responder is enabled, we will respond with "480 Temporarily Not Available".

Sage 96x SW release notes for 20170509

1. Expand the Echo Generator max delays from 500 ms to 1500 ms.

2. Under 23-tone test, the host did not display the "Equivalent PAR" value correctly. This version fixes it.

3. Adds Ethernet frame fragmentation handling for both transmit and receive to handle the large SIP packets when inter-working with other verbose SIP servers. Also enhance the SIP monitor to handle the fragmented SIP packets.

4. On the analog interfaces, enhanced the Ringing signal's PAR and RMS measurement stability when the ringing signal is very short.

5. The Longitudinal Balance test is now activated on analog port 3 (previously on port 1) while the internal signal source is on port 2. This provides the best port isolation per hardware design.

6. Added factory method to burn in the digital signature to track the analog board that contains valid longitudinal modification.

7. On analog port, raise the max send tone level from 3 dBm to 9 dBm to accomodate the compression test request.

8. For the longitudinal balance test, display the results "x.yy dB @ 1234Hz" format. Previously it only displays "x dB" without extra decimal precision and frequency info. Also adds factory utility to "burn" digital signature to any board with LB mod.

9. Adds back-door control for the SIP Responder side to control whether or not to echo back the "Record-Route: ..." header when sending back "100 Trying", "180 Ringing" and "200 OK" responses. This is to reduce the response packet size to avoid packet/frame fragmentation. The back-door control is via the "Number of BYE or CANCEL commands upon disconnection" under the "Advanced" tap under the SIP responder set up. Set the field to maximum value of 6 will stop sending the "Recorde-Route: " header lines. All other values will send the "Record-Route: " header. The number of BYEs will remain 1 if user sets it to 6.

10. If SIP Responder is not enabled, yet there is an incoming SIP INVITE command, a background process will attempt to handle the SIP command, but will cause problems, resulting in DSP/USB

errors. This is fixed under this version. Very important fix.

Sage 96x SW release notes for version 20170413

Restore the single-tone based return loss measurement (selecting SFRL under the send tone list). Change the wording "Send tone when Measu.." to "Send tone while Measuring...".

Final fix for the auto-responder on version 20170323

When the DSP-flash-based auto-responder was enabled, and DSP boots up but before the internal SIP engine is activated (which may take up to 10 seconds), if there are internal ethernet collisions, the software will auto-shut-off all tests. But this should not be done in the auto-responder mode. This version addresses the issue and finally will make the auto-responder bullet-proof.

Longitudinal Balance test added on ver 20170317:

This version adds the Longitudinal Balance Test on the Analog Port.

New Fix on 2017-2-27:

This version finally addresses the long term auto-responder issue when there are no incoming calls for a few days and the registration is disrrupted by some packet losses, the previous SW version will stop SIP registering. In this new SW version, registration will continue so that the SIP server is always aware of the auto-responder's presense even if some registration messages were disrrupted by some network events.

New Fix on 2017-2-24:

This version adds new IPg.cof file version of 98.62. The MoIP Auto-Responder feature is fortified to be more fault tolerant. For example, in middle of the call, if the ethernet cable is disconnected, or the analog side line is disrupted, or the telemetry is disrupted by whatever reasons, the Auto-Responder side will recover more gracefully. Especially, at the ethernet Auto-Responder side, the DSP software adds more resilience to tolerate more unexpected error situations.

New Fix on 2017-2-3:

When MoIP was added to the GigE board, the older ethernet board also needs to be updated to fully incorporate the IP-MoIP ability. The ethernet interface DSP version should read 98.60 or above.

New features added:

1. Added MoIP Director and Responder to the IP interfaces. Apply to both GigE and non-GigE boards. Option control subject to the MoIP option key. Meaning if a user has already bought the MoIP option for analog or DS1 interfaces will also automatically get this option for the IP interface.

2. Added an "Auto Responder" feature. This applies to the GigE interface only. With this feature, a user can save his/her last IP-interface configuration parameters, and SIP/RTP Responder test settings to the internal DSP board's flash memory. Once saved, the 960B product can then powered OFF and powered ON again. When turned on, and there is no 960B host GUI SW talking to the 960B, the 960B internal DSP (GigE-board-only) will boot up by itself, automatically applies the last-saved interface configuration parameters, and also automatically enables the Responder tests you last saved before turning off. The purpose of this feature is so that a 960B product can be turned into an independent Responder (without any PC SW or user involvement). Once turned on, the 960B can enable all the responder tests you last saved and ready to answer any test calls that come in. Once a call is disconnected, it will re-arm itself again, ready for the next call. Such auto-execution mode will terminate once a user connects to the unit via the PC GUI SW (through USB). Such feature is only meaningful (only applies) to a local-USB-mode 960B product. It does not apply to any 96x product that can be remotely operated through the internet (that has the VGX/TG5 board inside).

Details and examples:

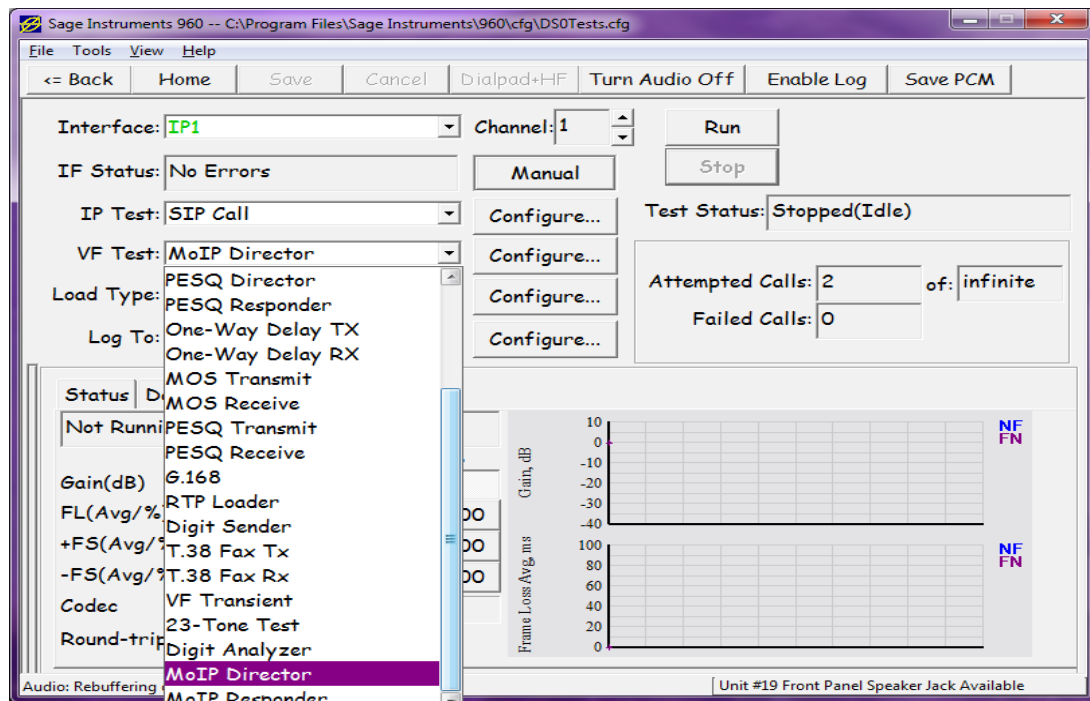Figure 1 shows the added MoIP Director and Responder tests under the SIP-call test list.

Figure 1, new feature list under SIP-call test showing the newly added MoIP Director and Responder tests.

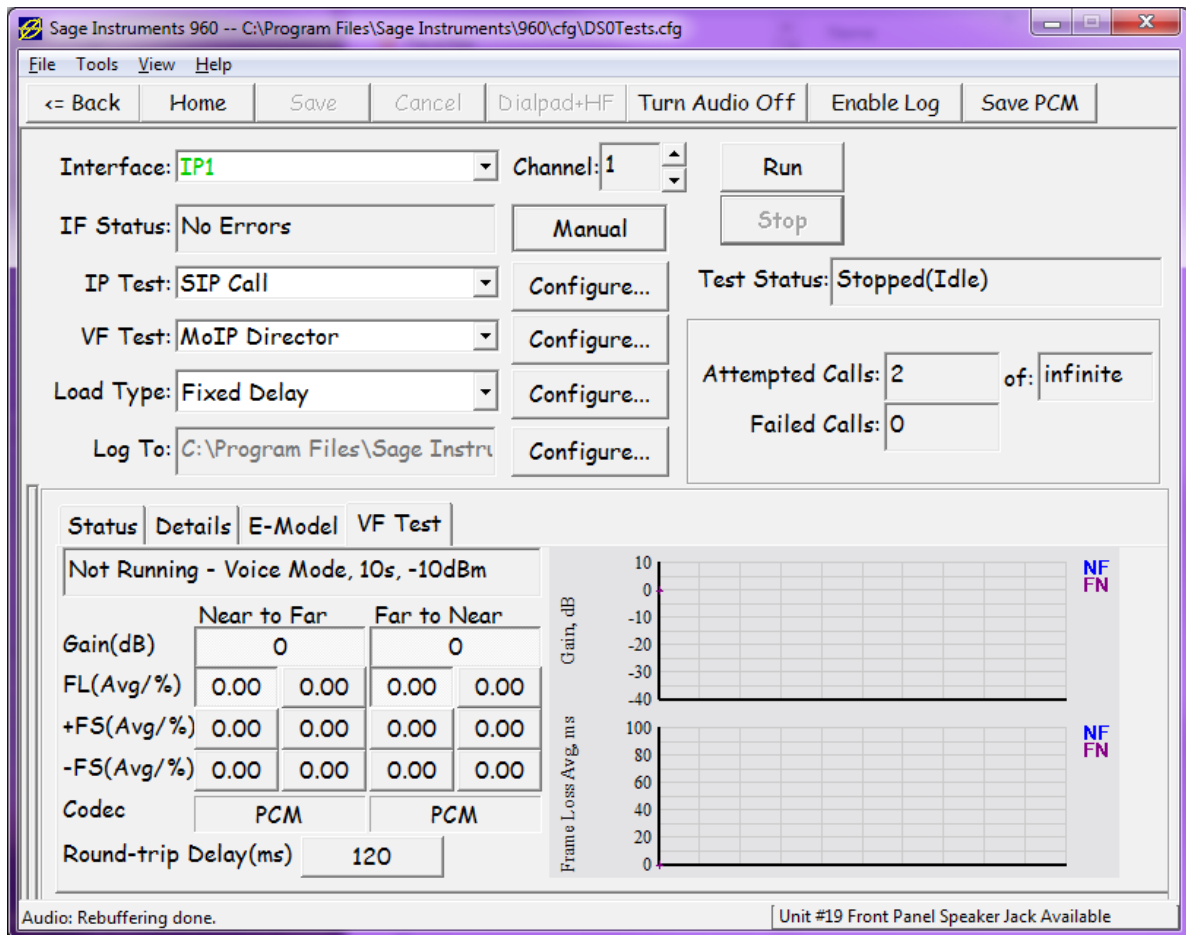Figure 2 shows the MoIP test director side VF results screen.

Figure 2, MoIP Director VF Results screen example.

Figure 3 shows that a Responder test (MoIP Responder, in this case) has been activated on channel 1 under the IP interface 2. Once a user clicks the "En Auto Resp" button, the 960B DSP board

internally will save all the program (COFF file) into the its internal flash memory so that it can boot up by itself next time without any PC GUI SW involvement. Also saved are the IP interface configuration parameters (such as the IP address of each port) so that next time when the DSP board boots up by itself, it will also automatically apply such interface configuration with the saved parameters. If a Responder test has been activated (in "Wait For Call" state) before clicking on the "En Auto Resp" button, this Responder test's setup parameters will also be saved so that next time when the DSP board boots up, it will automatically rearm such Responder test (and wait for incoming test calls). Remember that this Responder test must be Activated (a user must click on "RUN" button so that it enters the "Wait For Call" state) before saving, and only Responder tests are saved (Director tests are not saved), and only the Responder tests within channel numbers between 1 and 10 are saved (for each IP interface, so a total 20 auto tests can be saved and auto-rearmed). For such feature to be meaningful, you should assign a different SIP phone number for each channel, otherwise, an incoming call will always be answered by the first channel.
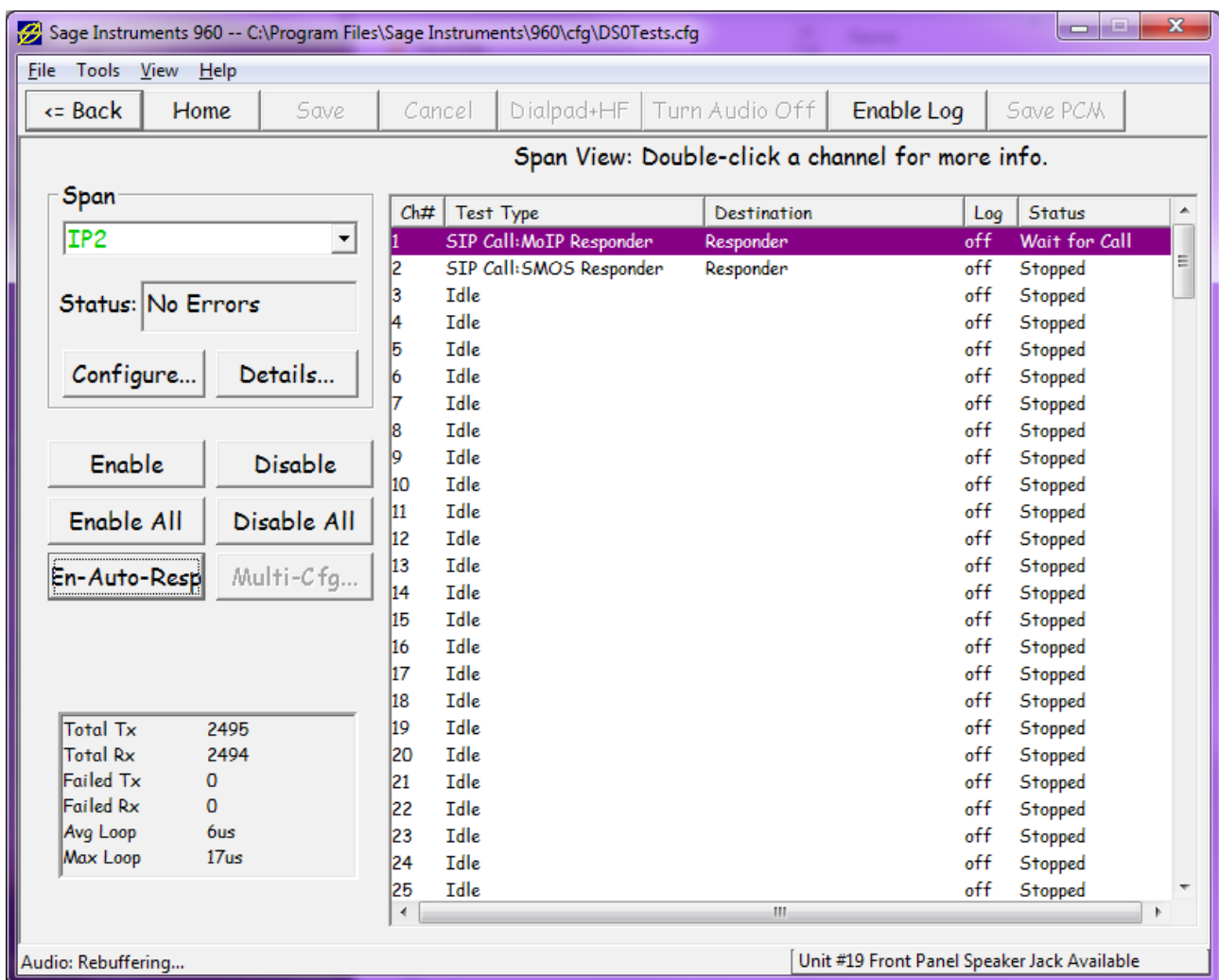

Figure 3, in this example, one MoIP Responder Test has been activated on channel 1, and the user then clicked the "En-Auto-Resp" button, which will cause the DSP board to save all the necessary parameters so that next time, when 960B is powered on, without any PC GUI SW involvement, 960B will automatically enter the Responder Test and keeps waiting for any new incoming test calls.