Release Notes
v2.6000 for Sage 925VST/325EV Responder

This document describes a new software release (v2.6000) for the 925VST. This software supersedes Version 2.5009 and is available now.

New Features

1. ***Post Dial Delay (PDD)*** — Reports the elapsed time in seconds, from the end of the last dialed digit to reception of the appropriate tone or recorded announcement, or the abandon of the call without tone. If no signal is detected, the 925VST will time out in 10 seconds. Accuracy is within ±20 milliseconds.

   This new function adds a "PDD" field in the Call Progress section of results.

2. ***SMOS Duration Settable*** — Previously, the duration of artificial voice was fixed at 9 seconds. Now, the allowable range is 5 to 60 seconds. Default is 9. The user can set this duration in page 11 of environment menu (navigate to: Main Menu/Setup/Environment/SMOS Artificial Voice Duration)

3. ***New Fax Test***
   a. Now supports both V.17 and V.27 modem rates/protocols. The user can choose ITU-T Recommendation V.27 (4800 bps) or V.17 (7200 bps) in page 10 of environment menu (navigate to: Main Menu/Setup/Environment/Fax Modem Type). Default is V.17
   b. Now sends two pages of fax, to check multipage fax capability
   c. Provides more useful status information. Status of the currently running test is both displayed on LCD and printed out via serial port during the test. A typical test will have the following messages:

Displayed Message	*Explanation*
FAX TX started	The fax test has started
Send CNG, await CED	Sending CNG (calling) tone, waiting for CED (Called terminal identification) — fax answer tone
CED received	Received valid fax answer tone
CED off, await DIS	Incoming CED tone has ceased, waiting for DIS (digital identification signal) which indicates far end fax capabilities
Recv DIS, send DCS	Received DIS signal, sending DCS (digital command signal) to indicate what type of modem, coding, and resolution will be used
Send training & TCF	Sending modem training signal for auto equalization purposes,
Await CFR	Waiting for Confirmation to Receive signal from the called end
Recv CFR,send Page 1	Received CFR signal, sending page 1 of the fax
Pg 1 ended,Send MPS	Sending MultiPage Signal to indicate current page is done, more to follow
Await MCF for Pg 1	Waiting for Message ConFirmation signal to indicate page was successfully received
Recv MCF,send Page 2	Received MCF signal, sending page 2 of the fax

Pg 2 ended, send EOP	Finished transmitting page of fax, sending End Of Procedure signal, indicating this was the last page
Await MCF for Pg 2	Waiting for the Message ConFirmation signal which confirms reception of page 2, and acknowledges receipt of the EOP message
Recv MCF, send DCN	Received MCF signal, sending a DisCoNnect signal
FAX TX success	The fax test was successful

Only the last message will be stored, so it will be either "FAX TX success" or a message describing the reason for test failure.

4. *New Echo Sounder*
   a. Is much faster
   b. Additional Functions
      1) **Total Return Loss** – this function includes the effect of echo that has been distorted by low bit rate decoders and is therefore not correlated to the original signal, but human ear still hears as distorted echo.
      2) **Convergence Time** for transient echo – Convergence time is the time it takes for the transient echo's level to fall below the Convergence Threshold. The user can set this threshold in page 12 of the environment menu (navigate to: Main Menu/Setup/Environment/Transient Echo Conv Threshold). Range is -20 to -90dB, default is -50 dB.
      3) **Echo Canceller Disabler Tone** - While running Echo Sounder, the G.165 echo canceller disabler tone can be sent by depressing the CLR key
   c. Expanded Reporting — Results are now on two pages:
      1) The first page displays the delay and loss of two echoes
      2) The second page presents Total Return Loss, Convergence Time, and the Convergence Threshold

5. *4 Wire PVIT* — In 4-wire mode, the 925VST can send and measure PVIT simultaneously. This function is included in the basic option package

Enhancements
1. ***Slower DTMF digit Dial speed*** — The 925 previously sent DTMF digits with timing parameters of 70ms on and 70ms off. This complies with the ITU-T Recommendation Q.23, but is too fast for some IADs (Integrated Access Devices). So, the inter digit time was increased from 70 ms to 100 ms. This change only affects the digit speed used by the dial out (calling) function, to establish a phone call.

2. ***Reduced the maximum Send Tone power level*** from +9 dBm to +3dBm, to reduce the possibility of a user over driving telephone circuits.