Release Notes
WITE32™

Version 2.51
06/16/2000

Introduction

The 2.51 release incorporates new features introduced after the WITE32 2.50 release. (This document uses the WITE32 2.50 release notes as a base line for comparison.)

Modifications

1. GUZIK SIGNAL DISPLAY

Guzik Signal Display is a WITE32 external module that allows:

- examining the read signals using an oscilloscope-like interface;
- building an averaged pulse profile;
- saving the digitized signal to file for further examination.

Guzik Signal Display is available for RWA-2585 family of Guzik testers. Please refer to the *Guzik Signal Display User's Guide* for details on how to install and use the Guzik Signal Display external module.

NOTE: Guzik Signal Display module (SDISPLAY.EXE) was previously called Guzik Signal Viewer module (GSV.EXE). If you use the product created in previous versions of WITE32, the software will automatically replace Guzik Signal Viewer module with Guzik Signal Display module in the list of installed modules.

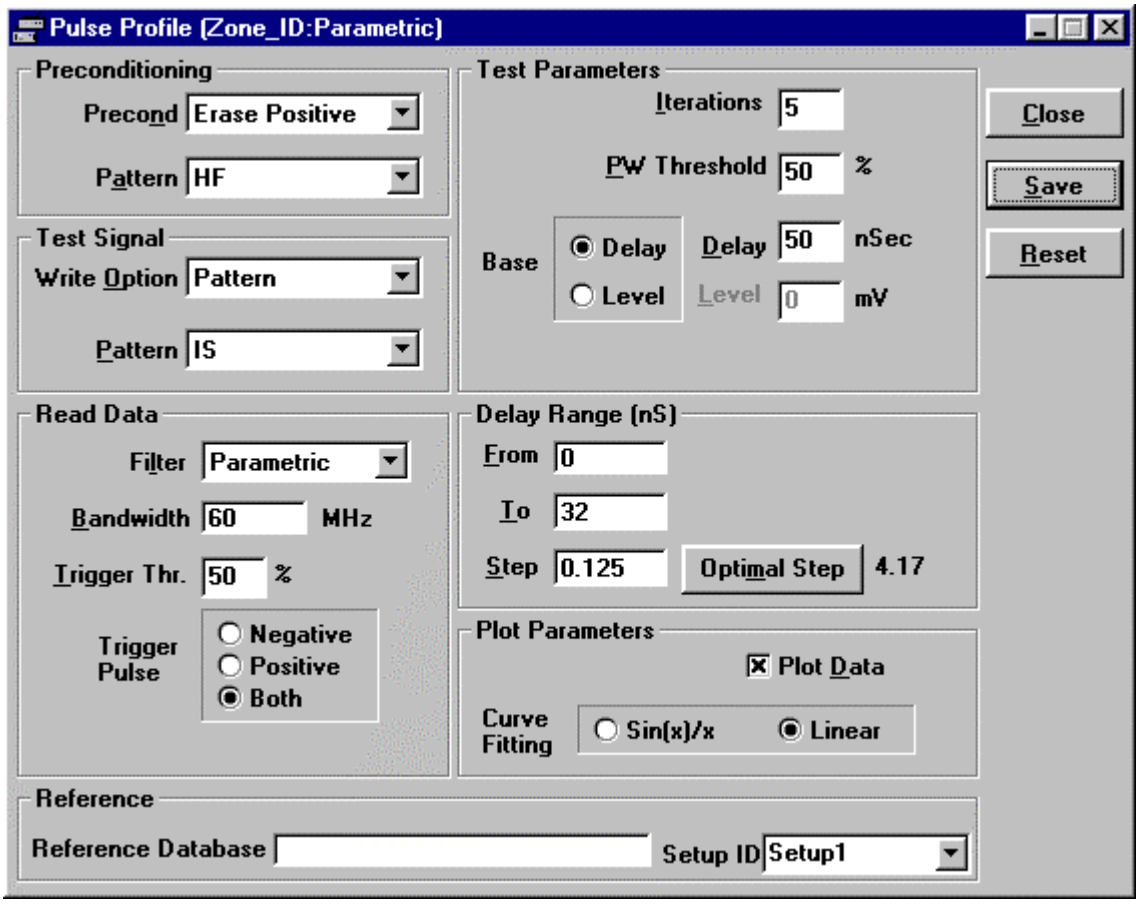
2. PULSE PROFILE TEST MODIFICATION

There are two hardware implementations of the pulse profile measurement:

- synchronous pulse profile (available in RWA-1632 and RWA-2585 tester models),
- asynchronous pulse profile (available in RWA-2585A and later tester models).

The difference between these two implementations is a triggering method. In the synchronous mode special analog circuitry inside RWA generates triggering pulse using threshold detector. You need to specify triggering threshold and triggering pulse source – negative or positive. In the asynchronous mode digital signal processor finds a maximum of positive or negative peak (zero derivative point of the signal) on multiple pulses, assuming they are equidistant, and uses this information to build pulse profile.

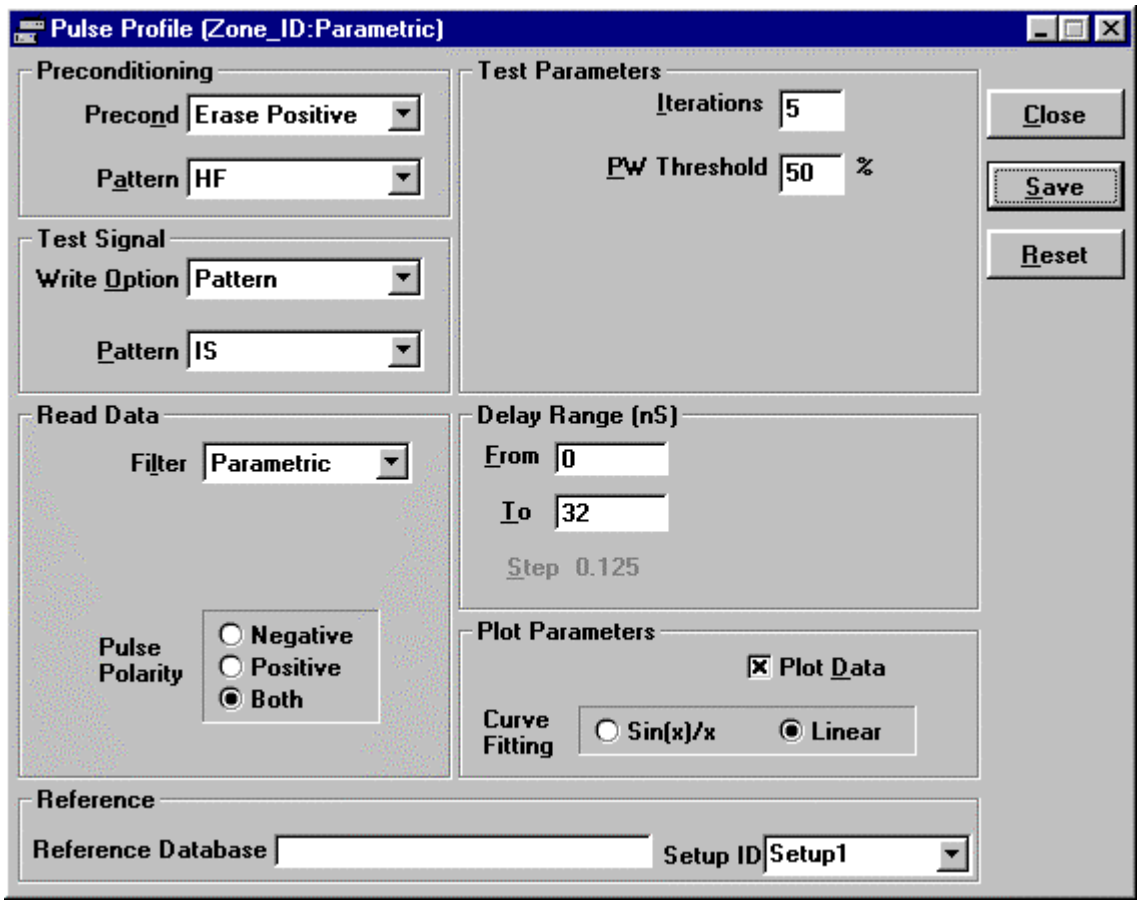
Due to differences in the synchronous and asynchronous pulse profile algorithms, the *Pulse Profile* test configuration dialogue box will be different depending on the RWA model connected. The picture below shows the *Pulse Profile* test configuration form for the syncronous pulse profile algorithm for RWA-1632 and RWA-2585:



The Pulse Profile test configuration form for RWA-1632 and RWA-2585 (synchronous mode)

When RWA-2585A or later is connected, the asynchronous mode *Pulse Profile* test configuration dialogue box has the following differences comparing to the synchronous mode:

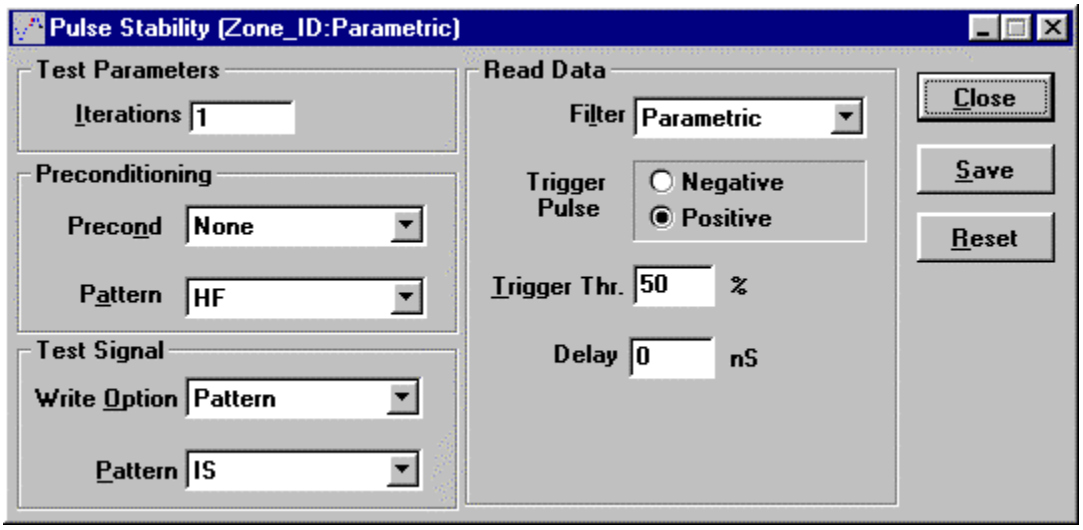
- The *Trigger Pulse* radio button name in the *Read Data* frame is changed to the *Pulse Polarity*, and means not the trigger polarity, but the desired polarity of the pulse, which you want to show.
- The *Bandwidth* and the *Trigger Thr.* controls in the *Read Data* frame are removed.
- The *Base* radio button, the *Delay*, and the *Level* controls in the *Test Parameters* frame are removed.
- The *Step* value in the *Delay Range* frame is always set to 0.125 nSec.
- The *Optimal Step* button in the *Delay Range* frame is removed.



The Pulse Profile test configuration form for RWA-2585A and later (asynchronous mode)

3. PULSE STABILITY TEST MODIFICATION

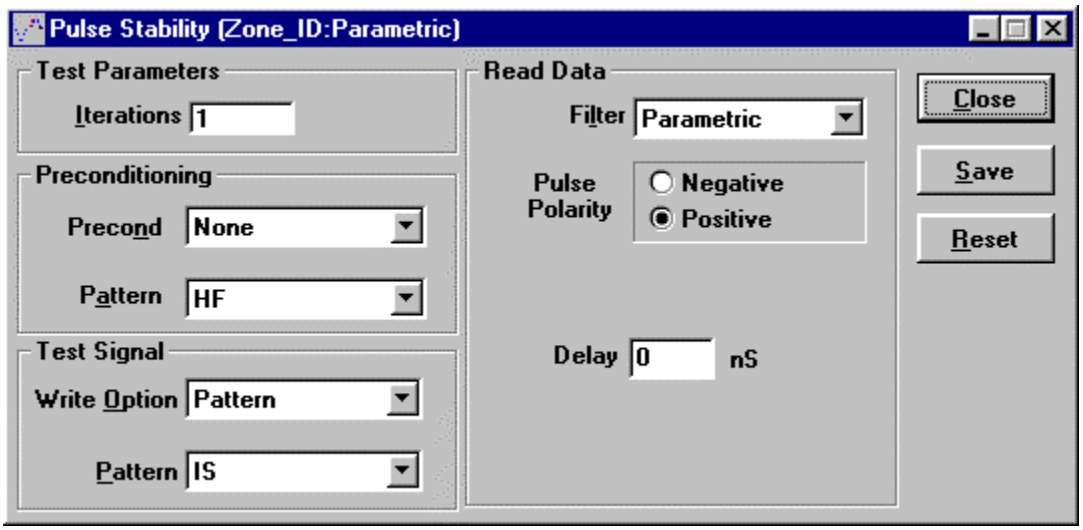
As it was mentioned in *Section 2, PULSE PROFILE TEST MODIFICATION*, there are two hardware implementations of the pulse profile measurement: synchronous and asynchronous. Due to differences in the synchronous and asynchronous pulse profile algorithms, the *Pulse Stability* test configuration dialogue box will be different depending on the RWA model connected. The picture below shows the *Pulse Stability* test configuration form for the syncronous pulse profile algorithm for RWA-1632 and RWA-2585:



The Pulse Stability test configuration form for RWA-1632 and RWA-2585 (synchronous mode)

When RWA-2585A or later is connected, the asynchronous mode *Pulse Stability* test configuration dialogue box has the following differences comparing to the synchronous mode:

- The *Trigger Pulse* radio button name in the *Read Data* frame is changed to the *Pulse Polarity*, and means not the trigger polarity, but the desired polarity of pulse.
- The *Trigger Thr.* control in the *Read Data* frame is removed.



The Pulse Stability test configuration form for RWA-2585A and later (asynchronous mode)

4. MISCELLANEOUS

1. The support for two new head amplifiers VM5410D3 and SR1750CDA6PHP was introduced in WITE32 ver. 2.51.

2. The support for the PROTEUS-ES head stack based on a 32R1611E chip was introduced in WITE32 ver. 2.51.

3. The default value of the *Increment* setting in the *Spectral SNR* test configuration form was changed from 10 MHz to 3 MHz. When you run the *Spectral SNR* test using relatively large step, the "Increment is too large for correct measuruments" error message may pop up. If you use a product created in previous versions of WITE32, and you get this warning message, you need to decrease the *Increment* setting value.

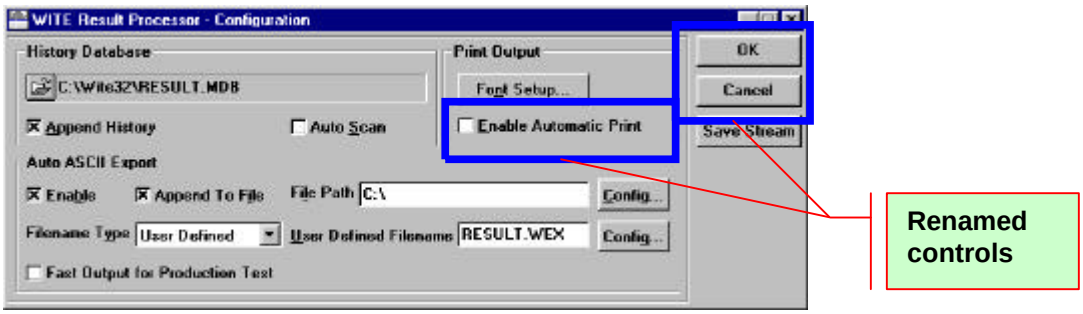
4. The default value of the *Custom Bias* setting in the *MR-Impedance* test configuration form was changed from 10 mA to 3 mA.

5. The *EEPROM Viewer* utility now displays the EPROM contents of the PCI Host Adapter board (as well as Beetle board). The PCI Host Adapter board and Beetle board are installed inside the computer.

6. The digital acquisition time will never be less than 100 µS starting from WITE32 ver. 2.51, if the *Acquisition Time* parameter is set to *Optimal* in the *Control* | *Digital Measurements* dialogue box. In previous versions of WITE32 the software could set the optimal digital acquisition time to less than 100 µS, which caused unreliable digital measurements.

7. The *WITE Result processor – Configuration* dialogue box:

    - The *Enable* option in the *Print Output* frame is renamed to *Enable Automatic Print* option.
    - The *Save* button is renamed to *OK* button.
    - The *Close* button is renamed to *Cancel* button.



Fixed Bugs

1. Universal Preamplifier 6 is not recognized properly by WITE32. This bug was introduced in WITE32 ver. 2.50.

2. If PCI Host Adapter interrupt is shared with another PCI device, the WITE32 software may not work properly.

3. A *Balancing* test does not run from the *Operator Panel*.

4. If you have old ISA Guzik Host adapter P/N 301270 Rev. H and earlier installed in your computer, and you are using RWA-1601/1632 testers, an invalid error message pops up: "Obsolete model of Guzik host adapter detected. RWA 2550 requires upgrade of Guzik host adapter". This bug was introduced in WITE32 ver. 2.50.

5. An invalid error message "Special write frequency is out of range" prevents you from setting flux frequency up to 500 Mflux/s in the Overwrite test on RWA-1601/1632. This bug was introduced in WITE32 ver. 2.50.

6. After you rearrange the grading priority, the WITE32 grading engine may assign a wrong final grade to production.

7. An error message "Can't find DLL entry point RCUSETHEADIDENTICAL in RWA32" appears when you use VM5430 or VM6214 head amplifiers. This bug was introduced in WITE32 ver. 2.50.

8. The spinstand microprocessor board *Fab Part Number* field is not updated correctly in the *Spinstand Parameters* dialogue box of a *Spinstand Alignment Program* in the factory settings mode. It always shows the default part number 304620.

9. Optimization of the closed loop control parameters for S-1701CF and S-1701A spinstands ignores the linear scale period. The spinstand software always assumes that four-micrometer scales are installed. Spinstands with two-micrometer scales may give a "Linear scale positioning error" error message. Starting from WITE32 ver. 2.51 the spinstand software takes the linear scale period value into consideration.

10. Even though the *Average Forward and Backward TAA* option in the *Track Profile* test is enabled, the averaged TAA plot does not show up.

11. When the *Reset* button in the *Control | System* dialogue box is pressed, the *W/R Offset* parameter is not updated in hardware.

12. There is a possibility to delete a default setup in the current zone, which leads to numerous error messages and product inconsistency.

13. Address mark detection is unreliable when *Positive* or *Negative* sector mode is selected in the *Control | Gate And Track Format…* dialogue box, and the RWA is in PRML chip mode. This may cause wrong results of the error tests (the Comparator Error test, the Error Rate test, the Offtrack Performance test, the Track Profile test, and the W747 tests).

14. The *Serial Numbers* dialogue box appears twice when you run the *Monitor Production* test.

15. The tests from NLTS tests group may give erroneous results depending on the number of ADC sample points. This happens in case of RWA-2585 only. This bug was introduced in WITE32 ver. 2.50.

16. The TAA Asymmetry measurements give misleading results when both Positive TAA and Negative TAA are close to zero. The TAA Asymmetry measurements are performed in the TAA Asymmetry test and the MR Saturation test.

Starting from WITE32 ver. 2.51, the TAA Asymmetry test displays a warning "No signal detected, asymmetry measurement may be unstable", if both Positive TAA and Negative TAA are close to zero.

The MR Saturation test does not draw the TAA Asymmetry line for those read bias values where both Positive TAA and Negative TAA are close to zero.

Corrections to previous release notes

1. WITE32 ver. 2.50 Release Notes. Fixed Bugs Section. Fixed bug number 2. The correct description reads as follows: “If you select the Flux option in the Write Signal frame of the Popcorn test, the actual flux rate will be twice **higher** than specified in the Flux textbox”.