

# GUZIK PRODUCT BULLETIN

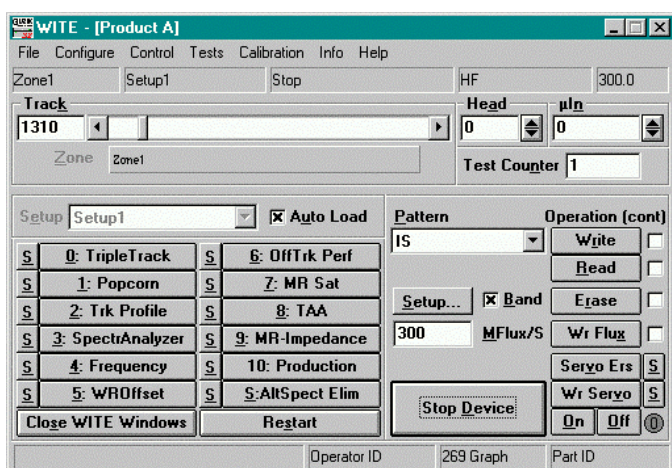
## WITE32<sup>TM</sup>

### Windows Integrated Test Environment

#### Production and Engineering Mode

#### Digital Test Capability

#### Servo Support



**WITE32** is the latest Guzik software package for Read/Write Analyzer (RWA) control. The open design architecture of the package provides flexibility and expendability to both user and designer. **WITE32** is developed under Microsoft Windows 32-bit environment using Microsoft Visual Basic and Microsoft Visual C++. **WITE32** has identical setups for engineering and production.



#### Feature Support

**WITE32** supports all features (such as PRML channels, Guzik servo, analog and digital parametric tests etc.) for current Guzik RWA models and all Guzik spinstands.

#### Open Software Architecture

**WITE32** environment supports integration of user-defined external tests, called *external modules*. You can create external modules using Microsoft Visual Basic or Visual C++, using a simple interface protocol.

#### Results Output

**WITE32** displays test results (including user defined tests) in a user-configurable spreadsheet style. You control the decimal point precision, fonts, width, and sequence of each displayed result. By enabling a history database (either locally or on a network) the results of all tests are stored in that database for manipulation (using Microsoft Access, or the data can be exported to any format that Microsoft Access supports, such as Lotus or Excel). The run-time results are kept in memory, which allows for faster execution of the tests.

#### Grading and Normalization

**WITE32** production environment supports an unlimited number of grades, which are color-coded for easy reading. Simply drag the grade definition line higher or lower in the stack to perform grade prioritization. The grades are defined for individual heads and entire head stacks. When a grade fails, you can easily check the failed parameters. **WITE32** normalization system can be enabled to generate correction factors that correlate results to a set of goal measurement criteria. User defined tests are included in grading scheme.

## **Parametric Tests**

- ❑ TAA Test
- ❑ Overwrite Test
- ❑ Asymmetry Test
- ❑ Pulse Width Test
- ❑ Parametric Test
- ❑ Read-Only Parametric Test
- ❑ Signal-to-Noise Ratio Test
- ❑ Spectral Integral Signal-to-Noise Test
- ❑ Amplitude Stability Test
- ❑ Sector Amplitude Stability Test
- ❑ Resolution Delta Test
- ❑ Pulse Width Stability Test

## **Composite Tests**

- ❑ Frequency Test
- ❑ Saturation Test
- ❑ Track Profile Test
- ❑ MR Saturation Test
- ❑ Pulse Profile Test
- ❑ Comparator Error Rate Test
- ❑ Off-Track Performance Test
- ❑ Set RPM Test
- ❑ Spectrum Analysis Test
- ❑ Triple Track Test

## **MR Tests**

- ❑ TAA Asymmetry Test
- ❑ Pulse Width Asymmetry Test
- ❑ Pulse Stability Test
- ❑ Write/Read Offset Test
- ❑ MR-Impedance Test
- ❑ WR-Impedance Test
- ❑ Head Polarity Test

## **WCALC – WITE Calculator**

- ❑ WITE Calculator for Tests

## **Error Tests**

- ❑ Comparator Test
- ❑ Popcorn Test

## **NLTS Tests**

- ❑ Pseudo-Random Sequences
- ❑ Alternative Spectral Elimination Test
- ❑ Third Harmonic Ratio Test
- ❑ MR Transfer Curve Test
- ❑ Alternate Overwrite Test
- ❑ NLTS vs. Write Current Test
- ❑ Signal/Noise Ratio Test

## **Digital Parametric Tests**

### **(with D5000 or RWA-2585 family)**

- ❑ Digital Parametric Test
- ❑ Signal Profile

## **PRML Tests (with RWA-2585 family)**

- ❑ Guzik Channel Optimization
- ❑ Sequenced Amplitude Margin (SAM) Test
- ❑ Sampled Values Distribution (SVD) Test

## **PRML Tests (with D5000)**

- ❑ Guzik PRML Channel Optimization
- ❑ PRML Explorer
- ❑ Sequenced Amplitude Margin (SAM) Test

## **Jitter Tests (with D5000)**

- ❑ Jitter Explorer
- ❑ Media Noise Test

## **Optimization Tests**

- ❑ System Optimization

## **Spinstand Tests**

- ❑ Servo Position Error Signal Test (PES Test)
- ❑ Off-track Modulation Test
- ❑ Scale Correction Test (Optional Purchase)

## **WDCP Tests**

- ❑ Balancing (for 1701 and 312 spinstand families)

## **Spinstand 2002 Tests**

- ❑ Balancing (for V2002 spinstands)
- ❑ XY Alignment
- ❑ Head Alignment

## **WITE32™** Optional Purchase Tests

### **WESA – Write Excited Sector Amplitude Tests**

- ❑ Separate Amplitude Asymmetry Stability
- ❑ Triple Amplitude Asymmetry Stability
- ❑ Write Induced Instability
- ❑ Pole Erasure

### **WATI – Adjacent Track Interference Tests**

- ❑ Adjacent Track Interference Test
- ❑ Adjacent Track Interference Multi-Track Test (WATI MT)

**New**

### **Micro-Actuator Tests**

- ❑ Stroke Test
- ❑ Mechanical Frequency Response Test
- ❑ Micro-Actuator Loop Setup Test
- ❑ Micro-Actuator Loop Frequency Response Test

### **Perpendicular Parametric Tests**

- ❑ Differentiator Optimization
- ❑ Roll-off
- ❑ Rise and Fall Time
- ❑ Saturation Asymmetry
- ❑ Amplitude Asymmetry

### **3D Pulse Profile (with D5000)**

- ❑ 3D Pulse Profile Test

**New**

### **Digital MSCAN – Media Scanning (with D5000)**

- ❑ Missing Pulse Detection
- ❑ Super Pulse Detection
- ❑ Transition Shift Detection
- ❑ Thermal Asperity Detection (written signal)
- ❑ Thermal Asperity Detection (erased track)

**New**

### **MSCAN – Media PRML Scanning Tests**

- ❑ Extra Pulse Detection
- ❑ Missing Pulse Detection
- ❑ Thermal Asperity Detection

### **Triple-Track Tests**

- ❑ Triple-Track Signal-to-Noise Test (with 747 option)

### **747 Tests\***

- ❑ 747 Comparator Error Test

### **Bit Error Rate (BER) Tests**

- ❑ BER 747A Test
- ❑ BER Linear Density Test
- ❑ BER Error Distribution Test
- ❑ BER Performance Test

*\* Deprecated test module, using BER 747A Test is recommended*

## **WDK32 – WITE Developer’s Kit**

WDK32 is a software package that allows you to create external test modules for WITE32 using Microsoft Visual Basic or Visual C++ revision 6.0. The compiled custom external module can be used in both Engineering and Production environment.

## **WDK32 Script – A Script Version of WITE Developer’s Kit**

A script version of Guzik WITE32 Developer’s Kit (WDK32) allows for interactive execution of all Guzik WDK32 functions including RWA and spinstand control functions, operations, and measurement functions. WDK Script, based on Microsoft Visual Basic for Applications (VBA) engine, is integrated into Microsoft Excel.

Using WDK Script you can execute any Guzik WDK32 function or subroutine interactively either from the VBA environment or directly from an Excel worksheet. You can write your own scripts, using all the functionality of Guzik WDK32 but without the complication associated with the WDK32 WITE external module interfaces, licensing, and the necessity to have Microsoft Visual Basic installed.

## **WDDR32 – WITE Device Driver Template**

WDDR32 is a software package for developing device drivers for the third party spinstands and connecting them to Guzik RWA and WITE32.

## **DDK – PRML Chip Driver Developer’s Kit**

DDK is a software package that allows for developing software drivers for PRML chip channels integrated into Guzik Read-Write Analyzers. The PRML chip drivers are developed using Microsoft Visual C++ programming language.



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