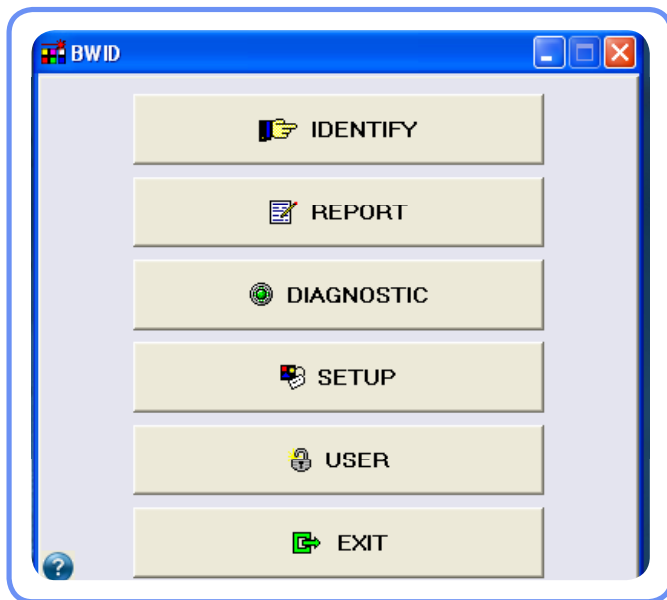


BWID™ - MATERIAL IDENTIFICATION SOFTWARE FOR B&W TEK PORTABLE RAMAN SPECTROMETERS

Identify Materials with One Click



BWID™ is designed to rapidly identify or verify materials based on user-built libraries or third-party libraries. It supports 21 CFR Part 11 compliant environments. One click is all you need to create or expand the libraries. The combination of BWID and B&W Tek's portable Raman spectrometers offers powerful and effective tools for unknown material identification and verification.

Applications :

- ▶ Incoming material QC
- ▶ Materials identification
- ▶ Materials verification

KEY FEATURES :

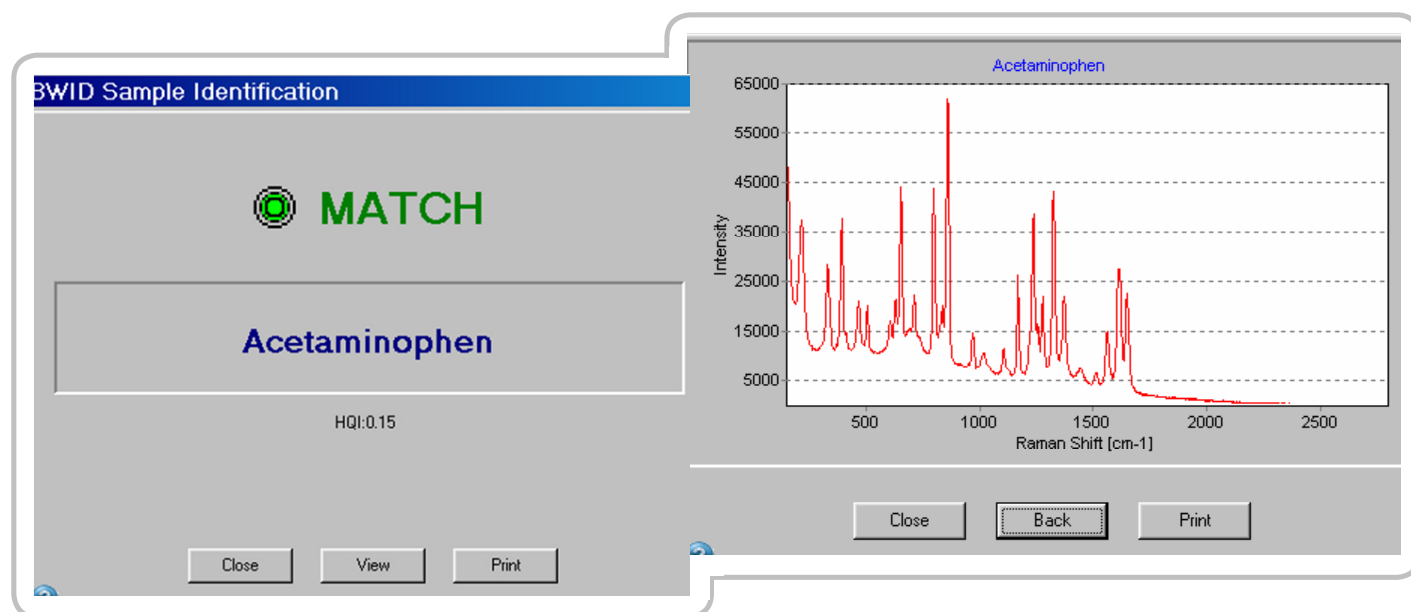
- ▶ Simplified menu driven GUI
- ▶ User-definable method for automation sequences of data analysis
- ▶ Supports user-built data library and third-party library
- ▶ Automatic performance tests

BENEFITS :

- ▶ Identify unknown and verify known materials with one click
- ▶ Build unique spectral libraries
- ▶ Supports 21 CFR Part 11 compliance for pharmaceutical manufacturing
- ▶ Facilitates cGMP inspection of incoming raw materials

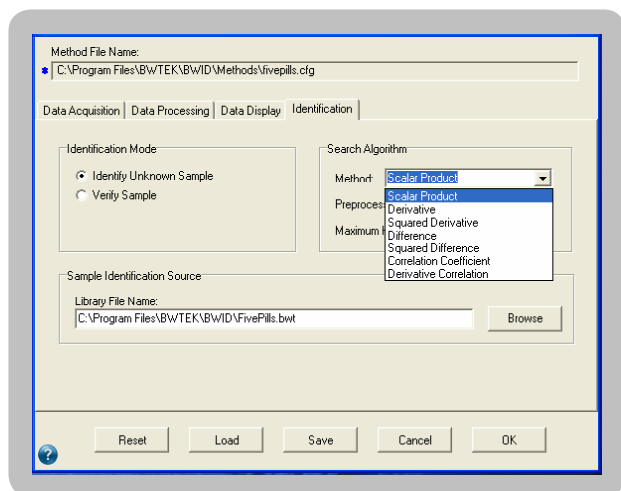
IDENTIFICATION

BWID's intuitive user interface and managed workflow minimize user error and ensure that even novice users are quickly up and running. The program quickly analyzes the substance in question and provides an immediate decision on its identification (Match/No Match) or validity (Pass/Fail).



SYSTEM AUTOMATION

BWID supports user-definable methods for sample identification. A predefined method allows an operator to perform sample identification through a one-click interface.



Search algorithms :

- ▶ Scalar product
- ▶ Derivative
- ▶ Squared Derivative
- ▶ Difference
- ▶ Squared Difference
- ▶ Correlation Coefficient
- ▶ Derivative Correlation

REGULATORY COMPLIANCE

BWID supports the FDA 21 CFR Part 11 regulation for Electronic Records and Electronic Signatures containing three levels of users: Administrator, Developer, and Operator. It provides enhanced system access security, audit trail of data activities, and system validation including IQ, OQ, and PQ procedures. The reporting capability enables user to save, view, and print the analysis report.

The screenshot displays the BWID software interface with several key components:

- Audit Trail Record Details:** A table listing system activities with columns for Date, Time, and System. A detailed view for a specific record shows:
 - Date: 8/29/2008, Time: 11:20:47 PM
 - System: BWID 2.00
 - Category: Measurement
 - User: Administrator
 - Account: bwadmin
 - Description: Sample identification: MATCH. Sample identified as <Tylenol>
- ID Analysis Parameters:** A summary of the analysis settings:
 - Analysis Date: Friday, August 29, 2008 11:26 PM
 - Operator: Administrator
 - Product: N/A
 - Method: C:\Program Files\BWTEK\BWID\Methods\demo.cfg
 - Data Library: C:\Program Files\BWTEK\BWID\demo.bwt
 - Search Algorithm: Correlation Coefficient
 - Maximum HQI: 50
 - Preprocessing: Savitzky-Golay 1st Derivative
 - Instrument: BTC111E-OEM
 - Performance Test Status: N/A
 - Performance Test Date: N/A
- ID Analysis Results:** A graph showing Intensity vs. Raman Shift. The x-axis ranges from 200 to 2800 Raman Shift, and the y-axis ranges from 5000 to 65000 Intensity. The graph displays a complex spectrum with multiple peaks, notably around 300, 400, 600, 800, 1000, 1200, 1400, 1600, and 1800 Raman Shift.