



The Revolutionary Method Expert


Guided, Automated Method Development for the LA-950



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One Important Question

Q: How can we help users solve particle size problems “offline”?



One Important Question

**A: Provide expert guidance which is
a mouse-click away**



A Revolutionary Idea

The goal is to create an invisible foundation of support



A Revolutionary Idea

The LA-950 is the perfect match for the
Method Expert concept



A Revolutionary Idea

Method development is the most complex, most important, and most misunderstood facet of using a particle size analyzer



A Revolutionary Idea

Simplify this process by automating tests and providing clear explanations at every step



A Revolutionary Idea

A great method is...

robust

accurate

reproducible



A Revolutionary Idea

A great method is...

robust

accurate

reproducible

Great methods optimize the hardware
and the software conditions to
achieve the best data



Collecting and Calculating

The LA-950 *hardware* collects scattered light data

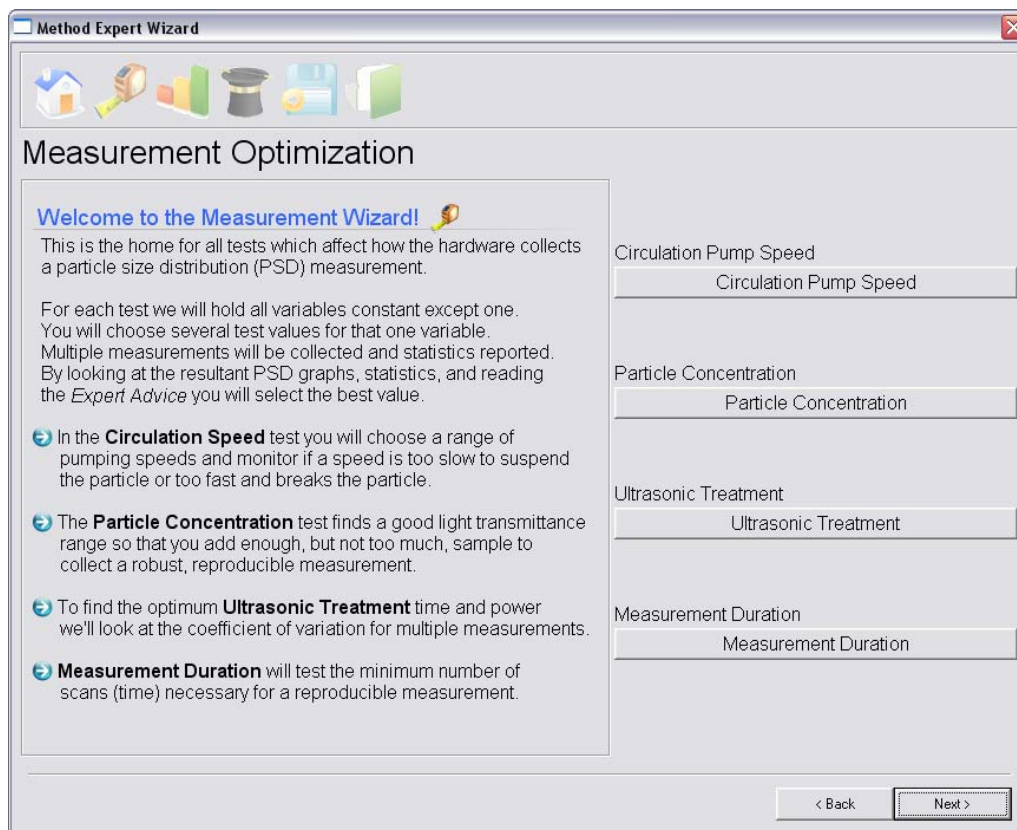
The LA-950 *software* calculates the particle size distribution using that scattered light data

Both must be optimized to maximize data quality



Measurement Optimization

There are four important tests...

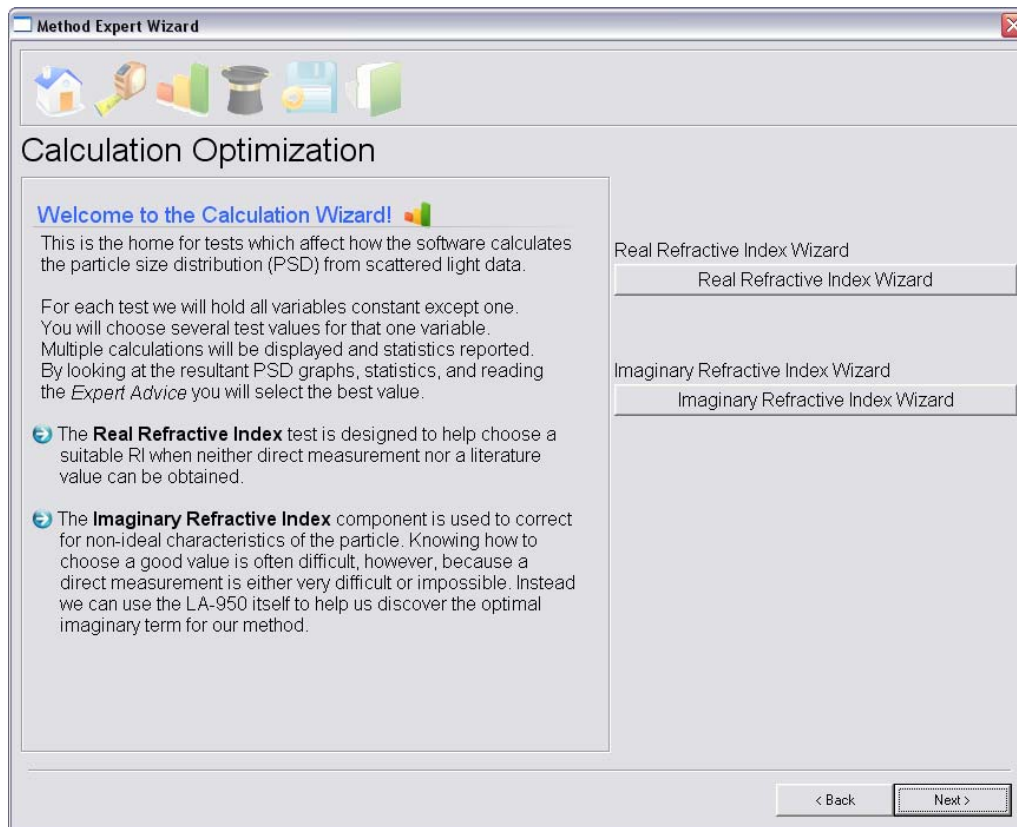


Circulation
Concentration
Dispersion
Duration



Calculation Optimization

There are two important tests...



Real RI
Imaginary RI



Basic Test Design

Why is the test important?

What does the test do?

How will the results be displayed?

What is the best value?

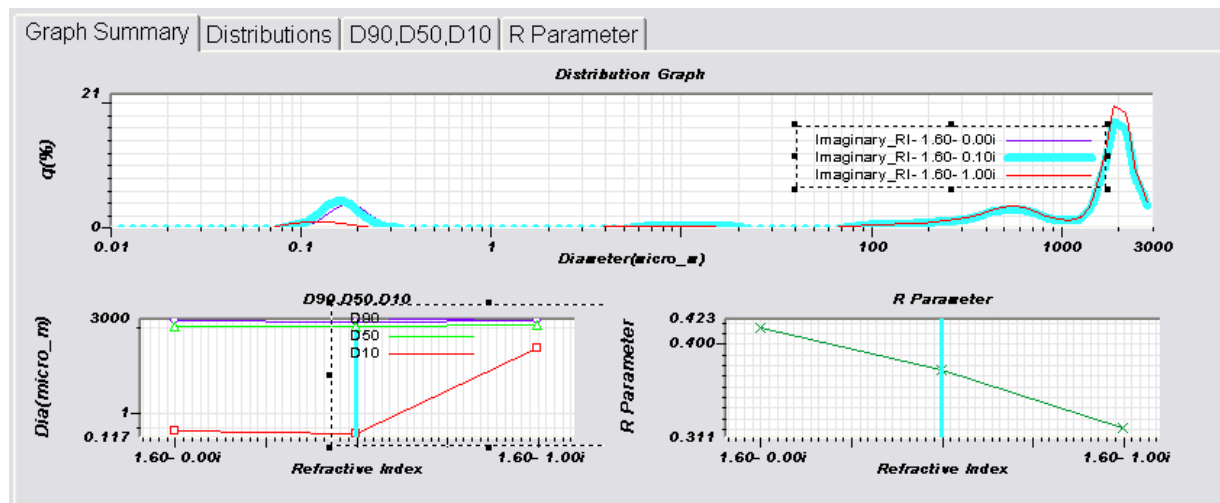
User selects up to 5 values for testing



Basic Test Design

Method Expert guides user to prepare the LA-950 for each test

Results displayed in multiple formats:
PSD, D50, R-parameter



Automation Wizard

Wouldn't it be great if you could take all these test results and build some kind of program that does everything with only one mouse-click?



Automation Wizard

Yeah, it is pretty great.



Automation Wizard

Method Expert Wizard

Automation Wizard

Welcome to the Automation Wizard!

The purpose of the Automation Wizard is to teach the LA-950 how to analyze a particular sample so that the user need only push a single button to collect a measurement.

A Condition and Sequence file will be created to automate the process and effectively create a standard operating procedure.

The entire measurement process can be separated into four sections: Preparation, Collection, Calculation, and Output.

- Preparation** is everything that needs to be done before the sample is added to the analyzer. This includes identifying the sample, filling the analyzer with liquid, turning on the circulation pump, aligning the laser, and taking a good background blank.
- Collection** is adding sample to the analyzer at the correct concentration and then measuring the scattered light data over time.
- Calculation** refers to the refractive index of the sample material and number of iterations for the data to pass through the algorithm.
- Output** consists of various ways to save, export, and print the measurement. The Condition and Sequence files are created here.

Preparing for Measurement
Preparation

Collecting a Measurement
Collection

Calculating the Measurement
Calculation

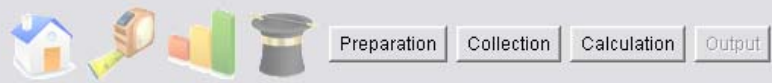
Outputting/Reporting the Measurement
Output

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Automation Wizard

Method Expert Wizard
✕



Automation Wizard

Outputting/Reporting the Measurement ?

Section Purpose Remember to click the ? button for more information

The measurement has been collected and calculated and can now be saved, exported, and printed for reporting. The LA-950 was designed to meet a variety of customer preferences, so there are many ways to perform these tasks.

Once the reporting setup is finished, simply name the Condition and Sequence files used to run this method.

Step 4. Give this Expert Method a unique, descriptive name. _____
 (This name is used as the output sequence file name)

?

Use same name for saving the condition file.

Step 5. Input condition file name. _____

?

Step 6. Push save button.

This wizard is temporarily closed,
and the sequence file and condition file are saved.

Save Sequence and Condition

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Next >



For More Details

Visit www.horiba.com/us/particle

Contact us directly at labinfo@horiba.com

Download the Method Expert white paper

Thank-you

