Thermo Scientific TruScan
Fast, Cost-Effective Method Development

Thermo Scientific TruScan is a rugged, handheld system for rapid material verification. On-the-spot results are delivered in seconds with nondestructive point-and-shoot sampling through sealed packaging. TruScan® reduces the need for quarantine areas and staging of raw materials, while minimizing risk of exposure and contamination. Quickly validated and easily operated, TruScan was designed for use in GLP and cGMP environments and is an approved technology for USP ID testing.

With TruScan, users are up and running in a matter of days or even hours, unlike other spectroscopic technologies which can take a significant time investment. Due to Raman’s molecular selectivity and TruScan’s intuitive user interface, method creation is typically completed in a few simple steps. Method creation requires interaction on the instrument interface and through the web based administrative tool.

Creating a method on TruScan is a simple process:

Step 1: Gather Necessary Materials.
Before setting out to create a method, make sure to have the necessary materials at hand. The items required are:
- a) A reference standard or stock material. This would be a certified material obtained from a reputable source such as a standards agency (USP for example) or material verified as such by an acceptable procedure normally performed in the laboratory.
- b) TruScan device and Ethernet connection accessories
- c) Network-enabled PC or laptop

Step 2: Acquire a Signature.
A signature is a Raman spectrum of a reference standard or verified stock material. Once Acquire under Signatures is selected on the TruScan menu, the instrument begins to evaluate the sample for interferences and ambient light affects. Interferences are automatically accounted for and the instrument takes a series of sample readings. TruScan’s decision engine determines when spectra collected have obtained a chemometrically suitable signal-to-noise ratio. The user then names the signature which is automatically stored as “inactive” within the instrument.

Step 3: Activate the Signature.
An inactive signature stored within the instrument is not used in any way by the instrument until it is activated. The process of activating is simple and reversible for users with enabled rights. Once activated, the signature can be renamed, if desired, and then becomes part of the discovery library. At this point it also becomes available to be associated with a method.

Step 4: View the WebAdmin
Every TruScan has its own web enabled interface which permits a passwordprotected user to interact with the TruScan via a local or networked PC. Connect the TruScan device to the network using the CF-Ethernet adapter and open a browser on a PC connected to the same network. Typing the address for the TruScan in the address bar will begin a dialog. The WebAdmin utility for the device will respond with a login screen. The user may log in using a valid username and password. The PC requires no additional software.

Step 5: Create the Method
In WebAdmin select New Method to begin creating the new method.
- a) Enter a method name
- b) Enter or scan a barcode field to be associated with this method (optional)
- c) Enter the sampleID prefix field (optional)
- d) Attach Info Files such as MSDS sheets and photos (optional)
- e) Enable the method
- f) With a click of the mouse, attach the signature to the method
- g) Save changes to complete the method creation
Step 6: Verify the Method is Operational

Once logged out and disconnected from the network, the method should be tested. After a suitable material has been located, transfer it to a vial or plastic bag to simulate working conditions. Using the TruScan device, run the method of interest against the sample.

The TruScan device should verify that the material in question is indeed the material expected with a “PASS” screen. Once methods are created, they can be easily managed within the same Web-based administration tool and distributed companywide. TruScan automatically stores all results for end-of-shift archiving, supporting 21 CFR Part 11 requirements. The web-based interface also provides administrators easy access to stored data and reporting capabilities, as well as method management, user creation and password administration.