

# Functional Test Analysis

## Automatic Testing Data Collection and Analysis

*A simple way to manage the information from the ATE/FT stations*

*Do you realize that functional test information is important for improving yield?*

*Are the measurements centered or closed to limits?*

### GO/NO GO or more

Today, electronics manufacturers run Functional Tests (in-house or outsourced). These tests are confined to GO/NO-GO indications and no test results are collected. These test results are important for yield improvement. For example, if measurements are closed to limits then there is a high probability that the problem is in the component(s), tester/station or PCB. But these results can't be viewed without a suitable tool for the collection and analysis.

In addition, different data structures are used with different testers (stations) provided by different manufacturers. That makes it challenging for manufacturers to collect information from multiple functional testers.

The geographical distribution of production lines of the same manufacturer (running tests on the products at different production sites) or logical discrepancies (the same production site with different networks connected through a third party including the Internet), thus making it difficult to accumulate all the information in one place.

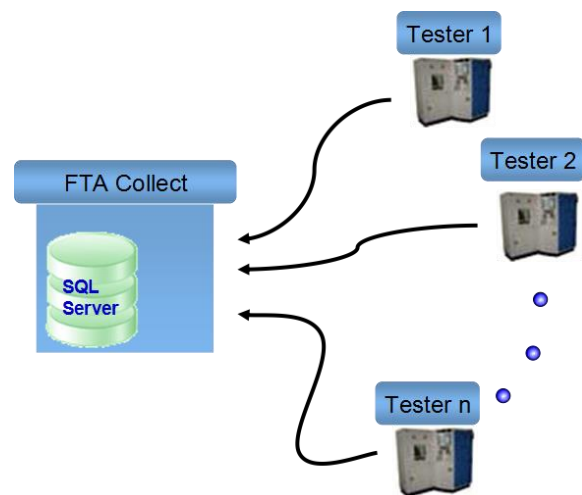
### FTA

FTA is an automatic data collection and analysis system designed specifically for the electronic production industry. FTA collects information for different levels such as product, serial, worker, dates, pass/fail, measurements (including limits and units) and more.

FTA includes at least two parts:

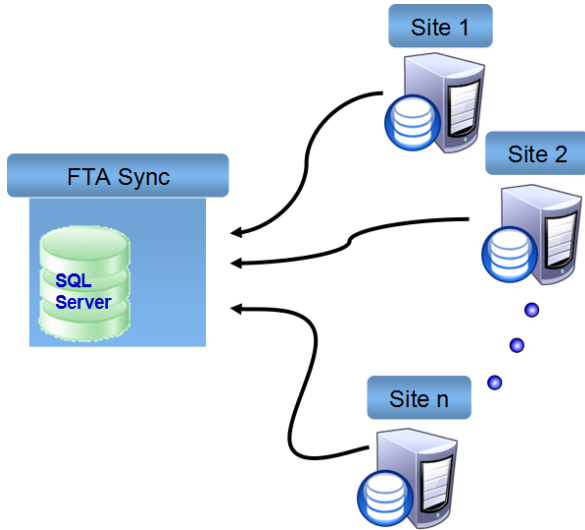
- A collection module as system background (including FTA Collect service and FTA Sync service)
- An Analysis module as a system front-end (also called FTA Client)

FTA Collect is an automatic collection service that works in the background with no user interaction. It collects and normalizes information from interfaces (also called **Filters**) from each tester and saves that information into an SQL database.



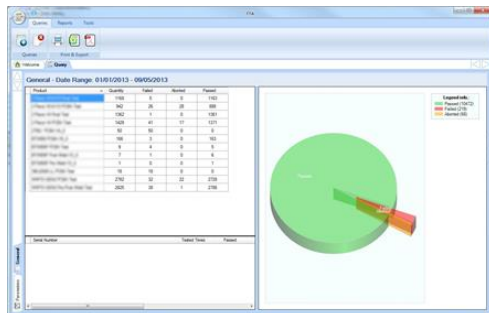
**Figure 1:** FTA Collect

FTA Sync is an automatic synchronization service that works in the background with no user interaction. It transfers collected information (in SQL database) from each site/network into a central SQL database using interface (also called **Filters**) such as Web-Drive, FTP etc. This service is optional and is used to solve the distribution problems (in sites and networks).



**Figure 2:** FTA Sync

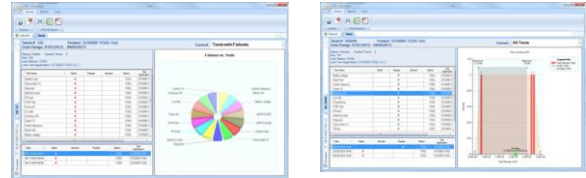
FTA Client is a simple and powerful user interface for dynamic analysis of data resulting in flexible report generation. The client allows analysis/reporting of data at different levels: general summary (used for managers), product summary (including summary, bell etc.) or serial number information (including all test history).



**Figure 3:** General Summary



**Figure 4:** Product Summary – Summary and Measurements Layout



**Figure 5:** Serial Number Information – Summary and Measurements Layout

**Features:**

- Collecting and normalizing information from different sources (testers)
- Synchronizing collected information onto on central location (SQL Server)
- Generating Dynamic queries filtered by Date, Products, Serial Numbers and/or Sites
- Ability to toggle between different levels of data on the query screen by merely clicking the mouse
- Ability to print or export displayed data directly from query screens
- Generating build-in and user defined reports
- Ability to print or export any generated report
- Report generator for user report template generation (based on standard SQL Server Report Builder)

Contact us at:

[www.proventustech.com](http://www.proventustech.com)

E-Mail: [alexeis@proventustech.com](mailto:alexeis@proventustech.com)