



TestBench

Manage and manipulate the underlying database, as well as the visual layer, during testing.



Original Software

TestBench for SQL Server, Oracle and System i enables you to test all aspects from Web or GUI down into the underlying system database. It sets the standard for quality in application testing and together with Test-Drive and Qualify and provides a Total Application Quality designed to perform rigorous deep and wide testing.

Total Application Quality for SQL Server, Oracle and System i

Traditionally test automation tools concentrates on testing only what the eye can see. We believe this strategy looking for defects in only one area to be an unacceptable compromise. We take a more holistic approach that embraces this visual layer but is equally rigorous in examining the underlying activity in the database.

TestBench integrates with other testing solutions from Original Software in a way which is accessible to both users and testers to ensure you retain **"Total Application Quality."** The all important data aspects of application testing can be included in an effective testing strategy.

TestBench also supports data extraction and management of test environments so that you can build ideal test databases quickly, based on live, scrambled (sensitive data obscured) data and synchronise the data with your automated and manual test cases.

Data is King! Good Data=Reliable Results

Intelligent Data Extraction: This delivers an efficient and reusable way of creating and extracting data subsets from your live database with full referential integrity making building cut-down test environments a fast and reliable process.

Data Scrambling: Data extracted from live environments may contain sensitive or confidential information which needs to be hidden. Scrambling means that real data can be used that accurately reflects the live environment, but as it has been made anonymous so the risk of exposure or costly legal penalty and embarrassment is neutralised.

Test Data Management (TDM): Good test data is an asset and needs to be protected and managed. It becomes corrupted it impacts testing and may hide errors. If it gets 'used up' in a test process it may have to be re-entered in order to repeat the process. TestBench's unique checkpoint and rollback function provides testers with a database 'undo' which returns the data to a prior state in a few moments so the error can be corrected or the test repeated. This is a great boon to testing productivity and can save days if not weeks in a project.

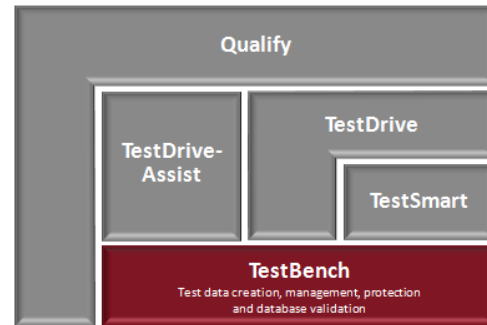
Database Validation: "Total Application Quality" enables a true regression testing capability to be built and automated, without the need for complex algorithms and SQL to validate data. TestBench is able to show you what happened in the database as a result of the test process and to test these writes, updates and deletes against pre-determined business rules, e.g. An order at status '3' must have a valid despatch date. You don't need to know how the tables are joined, how to find the affected data or know any SQL – TestBench just tells you what happened.

“Over the past 12 months, TestBench has conservatively saved Cargill Global Financial Solutions more than \$270,000.”

Chip Lee, Product Manager, Cargill GFS

Features & Benefits...

- Intelligent Data Extraction**
 Creating and managing test environments can be time consuming, expensive and may not produce the desired result. TestBench enables you to take production data, intelligently subset it based on an automatically derived hierarchy model to retain data integrity, and quickly and reliably build ready to go test environments. The data takes less space so you can increase the number of environments if required, the tests run more quickly and the results are easier to validate. There is less non productive testing down time waiting for environments to be built.
- Data Scrambling**
 Using production data in a test environment can contradict legislation and good practice, as well as increasing data security risks. Using TestBench's scrambling avoids these issues by masking or mixing data to make it untraceable so that valuable production-like data can still be used. Data security and protection against legal penalty.
- Checkpoints and Rollback**
 When developing and testing systems, mistakes happen, it is part of the process. But it can be frustrating if in a system test you have spent a couple of days getting some transactions to a critical stage only to encounter a problem which invalidates or corrupts the data which you have carefully created. Carry on and compensate, repeat the process, get a restore done? The problem is negated with this time-saving capability, just roll back quickly to a convenient checkpoint. Setting a checkpoint takes a few seconds and you can build them automatically into test steps so you have complete control.
- Testing the Database**
 The integrity of the database is key in most significant business applications, and it is also one of the hardest aspects to check. TestBench provides real in-depth and independent verification of the database showing developers exactly what happened; writes, updates, deletes file by file, record by record, field by field and program by program – whether batch or interactive. It shows this wherever it happened whether it was to be expected or not and provides the user with the ability to create rules to check integrity and validity as the events happen. As these data rules accumulate with knowledge and time, the database aspects are subject to increasing examination, closing the net on illusive errors end ensure accuracy where it counts – in the database.
- Linked Tests**
 All these capabilities of TestBench can be pulled together and combined with the related testing solutions to build a complete end to end system test. For example this might extract data for testing, set a checkpoint, run a batch process, run a web driven function, a green screen interactive test, compare the reports produced and roll back the data to the start.



TestBench — Manage and manipulate the underlying database

...and More

- What's Changed**
 When carrying out regression testing, the key thing is to identify what has changed. TestBench readily supports this requirement with the ability to baseline a set of results which can then be compared to the latest run to find the smallest difference in – screens, database effects. TestBench will quickly find all the differences so you only the changes you expect are there with no unwanted omissions or additions.
- Result Comparison**
 To make regression testing as easy as possible, TestBench enables you to capture a complete set of results (including those with screen and web content when used in conjunction with TestDrive), and to define this data as a 'Baseline'. Subsequent test runs can then automatically be compared to the baseline set and any differences highlighted, even down to the database. This gives you total peace of mind and in-depth validation of the whole test, you can be assured that any difference has been detected. Bear in mind, this baseline is based on the effects created by the test, not on the data already there. In other words it shows what the test *did* differently rather than the differences in the data at the end. Some of which may have been caused by different starting data.
- Table/file comparison**
 In support of the file and table checking capabilities which TestBench provides on row/column and record/field level automatically determined from the effects in the database as a result of running the test, it also enables a more 'macro' approach to be taken to checking the database against a pre-stored baseline. This is ideal for interface files and output files where you really do want to validate the whole content of the table, or a number of tables in the database.

