

Smart, Agile Test Data Management for SAP Environments

Qlik Gold Client Lowers Risk, Streamlines Compliance

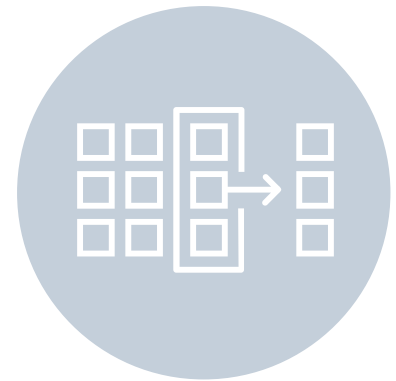
INTRODUCTION

SAP environments are as varied as the enterprises that run on them. That's because global organizations regularly acquire new business units, introduce new applications, and update older systems. Today, they're also rapidly migrating to SAP HANA and the cloud. With every system including customizations to run firms' unique processes and requirements always changing, complexity is rising. Teams need a better test management process to keep

Before any rollout, your project deployment team has a key job to do: test the changes to your ERP, CRM, HR, Finance, and other SAP applications in your non-production environments. But your current testing process can be time consuming and costly because it's hard to replicate data from inherently complex SAP systems.

And those challenges lead to lower productivity as your developers and quality assurance (QA) staff struggle with release cycle delays, disruptive replication processes, and faulty test results because of stale or invalid data.

Overcome testing obstacles with our Qlik Gold Client® (formerly Attunity Gold Client) software. It provides specific and secure SAP test data management with intelligent subsetting, so you get only what you need, when you need it. Your IT pros can select and copy small, current, and accurate data subsets into your non-production environments, accelerating support, testing, and QA efforts as well as your development initiatives. Our Qlik Gold Client solution also can obfuscate data fields through scrambling or masking, which lowers your security risk and streamlines your compliance.



Got SAP Test Data Management?

These Challenges and Requirements May Be Familiar

There's a typical four-step process to implement changes to SAP systems:

1. Prototype changes in a sandbox environment that isolate the new code from production.
2. Unit test those changes in a development environment to ensure transactions are working within each affected module – ECC, CRM, etc.
3. Release the changes that pass unit testing to QA for integration testing to ensure transactions align and flow properly across ECC, CRM, SRM, and other SAP systems. For example, if a sales order is received, it might need to trigger an inventory check, plant notification, etc.
4. Once integration testing is complete and successful, promote changes to production for implementation.



If you're a large organization, you likely run this cycle as often as hundreds of times per month. Which requires ensuring that accurate, current test data is in the right place at the right time, every time.

Yet over time, your sandbox becomes a key challenge because QA and development data can grow stale, failing to represent your production environment. To close this gap, skilled staff often spend valuable time generating simulated data for testing that still doesn't capture the appropriate production attributes, and therefore, can yield misleading test results.

This is one alternative to manually creating data: copy the production system over an existing supporting system. But it doubles your storage requirements and interrupts development and QA activities for days, even weeks. And it's risky:

- Real production data then exists in your non-production system, in its original state. This means sensitive data usually adequately protected in production could be exposed to more users with broader access, posing data security, and potentially, compliance issues.
- Unauthorized staff or consultants performing testing activities could be exposed to your sensitive data.
- Connections to external systems, printers, and interfaces might become misconfigured. Without careful attention to configuration details, customers could receive invoices or vendors payments from a non-production system.
- IT might lose critical change control history and earlier experimental code versions if someone overwrites a development system with a production copy.

This is another alternative to manually creating data: use test data replication tools that define data subsets within a limited set of criteria – for example, date range only (i.e., all data for the last 90 days) – and cannot update data once it's copied to the target non-production system. These tools often require an intermediate zone to stage data before it's moved to the target, further increasing infrastructure requirements.

To improve efficiency, your project teams require a test data management process that:

- Creates test data subsets that accurately represent production and what's happening in your business today
- Minimizes your non-production infrastructure footprint, which is especially important if you have, or are making the move to SAP HANA
- Limits risk of disruption to your production systems
- Minimizes sensitive data security and compliance risk
- Reduces the labor and duration of your testing cycles
- Regularly updates non-production data to represent your current business operations

Popular Use Cases for Test Data Management

These are the three most popular SAP test data management use case categories:

1. Creating Test Data

Use cases in this category include rebuilding proper unit testing clients in existing development systems, building new QA or integration testing clients, and creating copies for development/QA to help test and remediate production issues.

The goal for all of them is the same: to create a subset of production data according to specific variables – time, company code, etc. – not a full production copy. Defined properly, your data subset can efficiently support your testing, training, development, and QA activities. It should include three types of information:

NORTHROP GRUMMAN

“ It's obvious that Attunity knows the sap data model better than anyone in the industry. Gold client went into the very complex area from which we needed a specific data set and knocked it out of the park.”

PAUL STOLTZ

Manager, Enterprise Solutions Group Strategy & Support
Northrop Grumman

- **SAP master data** – Essential business operational data such as customers, vendors, equipment, materials, etc.
- **In-process transactional data** – Information related to active processes that are currently moving through the business, such as sales orders that lead to inventory checks, delivery notices and additional workflow. This “in-flight” transactional data is essential for testing SAP system changes that affect business operations today
- **Business-complete transactional data** – Information such as completed sales orders. This data is historical in nature and is mostly useful for validating reporting processes.

2. Responding to Business Events

As your organization evolves, it may grow or expand through acquisition, or contract through consolidation or divestiture. These business events impact your operations and information systems, including SAP. When business units are sold, IT must cleanly extract SAP data related to those entities, which requires carefully specifying and replicating data subsets. If new groups are purchased, their operational data must be integrated into the unified SAP system, which requires a streamlined client for pre-integration testing.

3. Migrating to New Platforms

Before organizations migrate SAP applications to SAP HANA to realize the performance and efficiency benefits of in-memory computing, they must test the operational impact on a non-production client. As organizations moving to the cloud, they need to minimize security and compliance risks by protecting sensitive data. Cloud migrations often start with non-production data – development, QA, etc. – to avoid potential business disruptions.

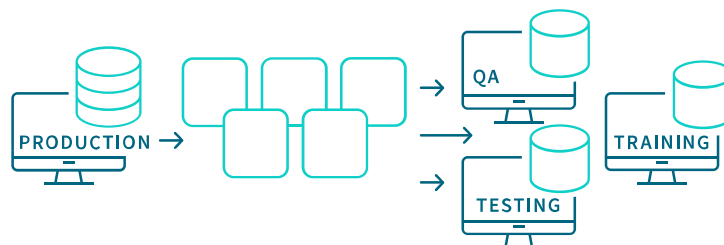
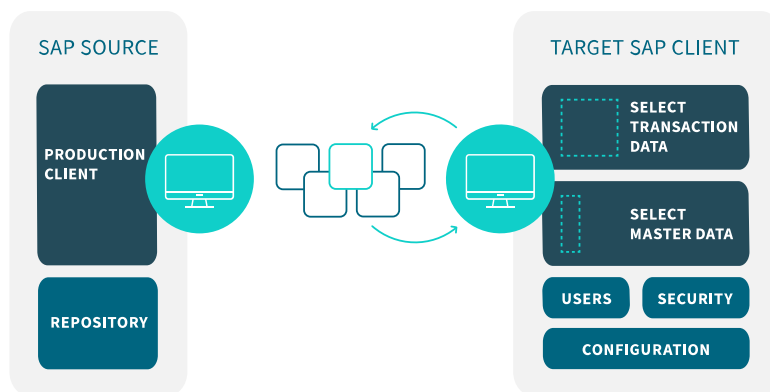
How Qlik Gold Client Works With Your SAP Environment

Our Qlik Gold Client software addresses your SAP test data management challenges, enabling your SAP project teams to efficiently and effectively address all of the popular use cases. These are its key capabilities:

Lightweight, Flexible Test Data Management

With our Qlik Gold Client software, your development and functional teams can surgically select and replicate data subsets from your SAP production system for use in non-production environments. They can define these subsets using any field or attribute. Our software copies the master and transactional data while keeping relational integrity intact. Best of all, transactional data includes the full document flow – end to end.

With Qlik Gold Client, you get support for the dynamic movement of data from production to development and QA systems. If problems arise in production, it's easy for your project teams to copy the relevant/affected information to your non-production environment for immediate troubleshooting. This can significantly shorten the time it takes to resolve a production issue.



Our solution also makes it possible to selectively delete data that's no longer needed from your development or QA environment. For example, when a new month's worth of data is loaded into the non-production system, the oldest data can be deleted. Therefore, your data can be kept current in a non-production system without having to refresh or rebuild the client from scratch – all while keeping the target client from growing. And our deletion capability also lets your team reset testing data, so a change can be tested and retested using the exact same data. Without Gold Client, this is virtually impossible.

Data Synchronization

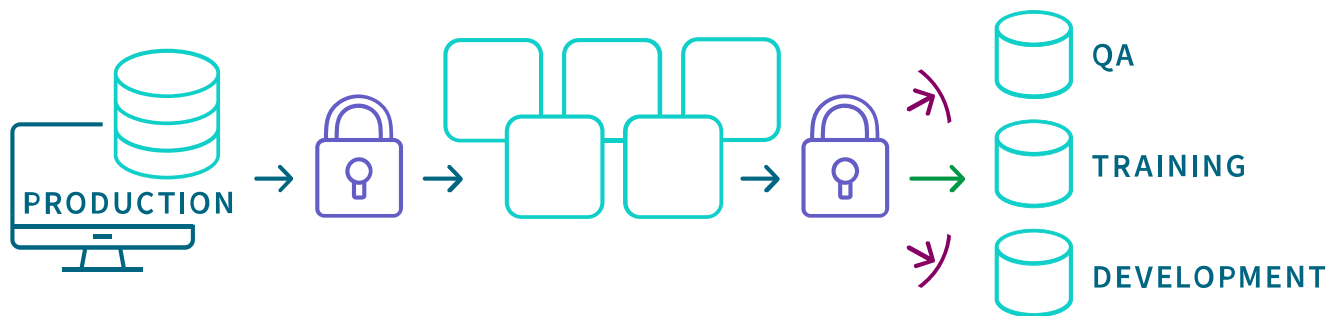
Our Gold Client software keeps your data subsets synchronized across SAP applications for accurate, end-to-end integration testing of transaction workflows. For example, when you're exporting a sales order in ECC, Gold Client triggers a simultaneous export of related data in CRM. When you replicate a data subset to non-production, you can opt to replicate all corresponding data across your SAP landscape. You also can synchronize data scrambling to ensure the same fields are scrambled across all relevant systems.

Data Integrity

The comprehensive and thorough SAP metadata model in our Qlik Gold Client solution supports consistency and data integrity. Logical linkages within our model ensure the full logical unit of work is considered when replicating data. For example, when you export sales order data, the solution also exports the relevant document flow, including delivery, billing document, invoice, and payment data. Relevant master data can be updated as well.

Security and Compliance

Our Qlik Gold Client solution precisely masks and scrambles data. Masking blanks out sensitive data values, such as phone numbers and email addresses. Scrambling inserts randomized or fixed values into sensitive data fields, such as individual names, social security and bank account numbers. Both these methods of obfuscating data can reduce security risks, assist audits, and streamline compliance when moving data to non-production and/or cloud environments. These features also can assist with General Data Protection Regulation (GDPR) compliance for companies housing EU citizen data.



Comprehensive Support

Qlik Gold Client software works with all data-capturing SAP applications, including ERP, HCM, CRM, SCM, SRM, GTS, Business Suite on HANA, BW, BW on HANA, and industry-specific solutions. It supports all SAP modules, as well as custom objects (Z tables). No additional system or hardware required. Qlik Gold Client also includes Data Wave, turnkey functionality that automates Qlik Gold Client tasks as part of a larger, integrated enterprise automation framework.

Proven Results. Exceeded Expectations.

Leading companies across industries rely on our Qlik Gold Client solution:



Mercedes-Benz

MERCEDES-BENZ USA

“Without Gold Client, we would have had to build two test environments, invest in a full-size copy of the production system, and more than double our storage requirements, which would have been very costly.”

-Tom Lavin, BASIS Administrator

NORTHROP GRUMMAN

NORTHROP GRUMMAN

“Gold Client allows us to target key data and move it without a lot of effort. In the SAP world, that’s simply amazing.”

-Paul Stolz, Manager, Enterprise Solutions Group Strategy & Support



MENTOR GRAPHICS

“We have turned to Gold Client to fix issues with sales documents and credit checks, as well as shopping carts in SRM. Now we can pull data back from production to troubleshoot glitches or technical problems in our preproduction systems. Bottom line, Gold Client saves Mentor a lot of time and money.”

-Michael Didner, PMP, IT Worldwide Order Fulfillment and SCM Solutions Manager



BROWN-FORMAN

BROWN-FORMAN

“Gold Client is amazingly versatile and easy to use. We’re using it for a number of intelligent data transfer projects. It is a valuable tool for any SAP environment.”

-Bob Evelyn, Manager of the Software Management Group

JPMORGAN CHASE & CO.

JP MORGAN CHASE

“Gold Client has revolutionized the way we test in SAP.”

-Director, SAP Program Office

Improve Your Test Data Management with Qlik Gold Client

There's more than one benefit to using Qlik Gold Client in your SAP environment:

Reduce Infrastructure and Maintenance Costs – Our Qlik Gold Client solution streamlines your project infrastructure associated with SAP test data. Selecting subsets of data from production lets you run robust development and testing programs with as little as 2% – 5% of overall production data volume.

Improve Your Allocation of Project Resources – SAP test data refreshes are fast (not weeks long) with Qlik Gold Client. That means your project teams can devote more time to higher priority projects. And quicker data refreshes mean your organization maximizes the uptime of your non-production clients, accelerating the change process from prototype to unit test to integration test and deployment.

Gain More Effective Prototyping, Development, and Testing of SAP System Changes – Higher data quality and increased availability mean smoother rollouts of system changes to production. When you've thoroughly tested process modifications and other system changes using accurate and current data, they're less likely to fail once they're promoted to production. The result: faster change deployment to production with fewer errors and functional outages.

Reduce Security and Compliance Risk – Our Qlik Gold Client obfuscation capabilities minimize your risk of sensitive data misuse or exposure in non-production and/or cloud environments. For example, masking or scrambling selected fields anonymizes customer or patient records, enabling your IT staff to lower security risk in non-production environments and comply with new privacy regulations such as GDPR.

While running SAP applications, you now have a more effective solution to address your SAP test data management challenges. Our Qlik Gold Client software empowers you to test and implement changes to your production systems more efficiently, reducing IT resources while minimizing risk and streamlining compliance.

Assisting GDPR Compliance

The General Data Protection Regulation (GDPR) strengthens personal data privacy laws for any company selling to citizens of the European Union (EU). GDPR broadens the definition of personal data and gives individuals the “right to be forgotten” by vendors. It also allows regulators to fine offending organizations as much as 4% of their global revenue. In response, companies are implementing GDPR-compliant data management policies globally for EU and non-EU customers alike.

Our Qlik Gold Client assists you with GDPR compliance by precisely blanking out, or masking, and scrambling – with fixed or random values – selected customer data fields.

With these capabilities, your organization can:

- Give customers or groups of customers the “right to be forgotten” by obfuscating all personally identifiable data (PII).
- Ensure any customer record copied to testing or other non-production environments is anonymized, eliminating the need to enforce further compliance measures to those datasets.
- Anonymizing customer records in support of GDPR-compliance analytics initiatives.



About Qlik

Qlik’s vision is a data-literate world, one where everyone can use data to improve decision-making and solve their most challenging problems. Only Qlik offers end-to-end, real-time data integration and analytics solutions that help organizations access and transform all their data into value. Qlik helps companies lead with data to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward. Qlik does business in more than 100 countries and serves over 60,000 customers around the world.

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