DATPROF

TEST DATA SIMPLIFIED

AZ

Analyze & Discover

Discover your data and gain analytics of the data quality by profiling and analyzing your application databases.

→

PV

Mask & Generate

Enable test teams with high quality masked production data and synthetically generated data for compliance.

→

SB

Subset & Reduce

Subset the right amount of test data and reduce the storage costs and wait times for new test environments.

→

RT

Provision & Automate

Provide each team with the right test data using the self service portal or automate test data with the built-in API.

→

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DATPROF CASESTUDY

Test Data for Mixed Technologies at Heineken

HEINEKEN

PRIMARY USE CASE

“We are protecting our personal and sensitive information, while we provide test data to our customers for their business-as-usual and project testing.”

Just like other organizations, many different applications are in place using a variety of database technologies. Heineken has a landscape containing both SAP and multiple non-SAP sources including Oracle-based J.D. Edwards and Microsoft SQL server-based Heilite. These applications exist in several different countries all containing privacy-sensitive data.

Heineken had a virtualization test data ‘solution’ in place not fully delivering on its promise and with high annual expenses. Besides avoiding ongoing costs there was a desire to improve the refresh speed and to mask consistently over the chain.

HOW DATPROF HELPED

"One of the ways DATPROF has added value is that three years ago before we had the solution when an audit was done for non-SAP applications, there were always red flags. We, as a company, were not able to protect the data. The demand for doing so was there, but in big organizations, you also need the will.

Once we found DATPROF, the red flag issue was eliminated. Audit-wise, we are now compliant. And our customers are also happy because when they do any kind of project, it’s not only about internal users because the systems are exposed to multiple external people. That is where we are now able to protect our data.

Heineken N.V. is an Amsterdam-based Dutch brewing company. Heineken is one of the largest beer producers worldwide.

Heineken International owns a worldwide portfolio of over 300 beer brands, selling beer in 190 countries. The organization has more than 85.000 employees.

“The data scrambling, the masking, is the most valuable feature. That is how we protect our personal and sensitive information. That is very important for Heineken, given that we work in global scenarios with a lot of personal information and business-sensitive information. This feature is particularly helpful. It is a very intelligent solution when it comes to identifying the dependencies and connections and it is easily scalable. It allows a type of self-service where we are not dependent on the supplier to do the work. Our team members can do things themselves."

Manoranjan Mishra
Product Owner

For non-SAP, before we had DATPROF, we used a couple of workarounds. For example, we would write an SQL query to change a phone number from A to B, but for all phone numbers. If we had 40,000 customers and 40,000 phone numbers and wanted to mask the phone numbers, we would write a query to change all the phone numbers to 123-456-7890. But that's not scrambling, that's just a mass change, and it was manual work. Now, the results we get do not look like masking because it's real masking."

VALUE

"The data scrambling, the masking, is the most valuable feature. That is how we protect our personal and sensitive information. That is very important for Heineken, given that we work in global scenarios with a lot of personal information and business-sensitive information. This feature is particularly helpful. It is a very intelligent solution when it comes to identifying the dependencies and connections and it is easily scalable. It allows a type of self-service where we are not dependent on the supplier to do the work. Our team members can do things themselves.

It is also extremely important that DATPROF's masking for non-SAP databases also integrates with SAP TDM, out-of-the-box. We have operations in more than 100 countries and a majority of those operations use SAP applications. But some of our very important regions, such as the Americas and Asia-Pacific, are using Microsoft Dynamics NAV and Oracle as their core ERPs. That means we have some customers who are in both SAP and non-SAP. When we do scrambling for different applications, it is extremely important that DATPROF and the SAP applications talk to each other and synchronize. Otherwise, for example, if the name Mano is changed to Frank in an SAP system, but the same Mano is changed to Albert in a non-SAP system, that means Mano has two names in two different systems. That means that identity is lost, from a name perspective. It is also quite efficient, as we are doing data refreshes regularly."

Data masking with DATPROF Privacy

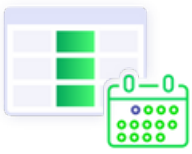
The use of production-like data in test processes is often desirable to guarantee the quality of the test execution. By anonymizing or masking the production data, this data can be made suitable for testing purposes while complying with legislations and regulations.

Anonymizing means adjusting data in such a way that the data cannot be traced back to a natural person. Of course, it is important that the data remains usable for testing purposes. In addition, it is important that de data in a chain of applications is made anonymous in the same way so that it remains usable for performing chain tests.

DATPROF Privacy is a targeted and user-friendly data masking solution which enables users to consistently anonymize (production) data and generate synthetic test data in a simplified way.

Data masking functionalities

Shuffle
Swap values within a column or multiple columns



Date of birth
Change date fields to anotherbirthdayin the samemonthor year

Blank
Remove values from column

Look-up
Replace values with values from another table

Scramble
Replace existing characters with x characters

Expression
Usestandard or own functions

Synthetic data
Use built-in synthetic data generators

Start a free DATPROF Privacy trial

Synthetic test data generation

With DATPROF Privacy you can replace privacy sensitive data like names, email addresses and bank account numbers with fake or 'dummy' data. This will also help you out in aligning your test data with your test cases.

When you've decided to use synthetically generated data for testing, you'll need to know how to generate data that fits your database. With DATPROF Privacy that is very easy. When you've connected DATPROF Privacy to your database, you just add a generation function like any other function in your masking template and generate data for that column in your database.

A great advantage of this approach is that all relationships between the tables remain unchanged. Your data structure remains functional and technical consistent, but you use synthetic data instead of privacy sensitive production data.

Of course, we also support the generation of test data over a chain of systems.

Synthetic data generators

Basic generators

- Random string
- Random date/time
- Random number
- Random decimal number
- Sequential numbers

Business

- SSN
- IBAN
- Currency code
- Currency symbol

Brand

- Company
- Male first name
- Femalefirst name
- Last name
- Location
- Country code
- City
- Street
- Country

Business

- Random value from seed file (pick values from a custom CSV seed file)
- Regular expression (generate values based on a regular expression)
- Weighted list (generate values based on distribution, for example 40% male, 60% female)

And many more

Advanced data masking options

DATPROF Privacy can also mask your messages. With this functionality, privacy-sensitive data in messages can be made anonymous in the same way as the already masked application.

This gives the test organizations the opportunity to continue to communicate with (internal or external) chain partners, even if the chain partner doesn't use masked data.

This makes it possible to perform end-to-end tests. This functionality can also be used to rid outgoing communications (messages)of privacy-sensitivedata.

Standard supportedmessagetypes:

- 'CommaSeparatedValues' (CSV): Flat-files wherevaluesare seperatedbya seperator.
- 'FixedLength' (FL): Flat-files wherevalues have a fixedlengthandposition.
- 'RecursiveFixedLength' (RFL): Hierarchical flat files where values have a fixed length and position.
- 'ExtensibleMarkupLanguage' (XML): Messagesbasedon theXML format and associatedXSD

Conditional data masking
Use conditions to sharpen the anonymity of data sharing

Influence the process
Decide for yourself how the data masking process is carried out

Audit report
This report indicates which functions were carried out by which user in which environment

DATPROF Privacy training videos

Supported databases

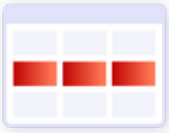
DATPROF Privacy 4.11
Native Support Databases
Oracle 11.2 and above
Microsoft SQL Server 2008, 2012, 2014, 2016, 2017, 2019
IBM DB2 LUW 10.5 and above
IBM DB2 for I 7.2, 7.3
PostgreSQL 9.5 and above
MySQL 8.0
MariaDB 10.4
SupportOperating Systems
Microsoft Windows 7 or higher | Microsoft Windows Server 2012 or higher

Data subsetting with DATPROF Subset

Test data subsetting is extracting a smaller sized – referential integer set of data from a 'production' database to a non-production environment. With DATPROF Subset you can build advanced subset templates for all your applications and databases with the easy-to-use data subsetting interface. Our patented algorithm makes sure you select the right data.

Use the built-in synchronization wizard to easily update and maintain your subset templates. With minimal effort you can update your subset templates even when your data models are changing. Specify and filter precisely which data you want made available in your subset. Add extra filters, transform data with column expressions and add extra dependencies or custom foreign keys. DATPROF Subset uses a smart classification system which enables users to select the right data for each table. The auto classify system and validation rules enable the creation of new subset selections.

Data model classification



Subset –Processdata

Example: Customers, Orders, Contracts

Full –Master data

Example: Application data, Master data

Empty –Logging, History

Example: Log tabels, temp/test tabels

Start a free DATPROF Subset trial

Benefits of data subsetting

With DATPROF subset you can extract specific selections out of production databases and make it directly available within the test environments. DATPROF Subset selects data from a full-size production database, in DATPROF Subset this is the “source database”. This data goes to a copy (test) database. In DATPROF Subset this is called the “target database”. By applying filters when filling the target database, this database will be smaller in size than the source database. This enables faster and cheaper testing.

With the use of subsets:

•The need for data storage is decreased (sometimes by more than 90%)

•Idle times are significantly reduced

•High control in test and development turnarounds

•Developers influence the data they need.

DATPROF Subset training videos

The main method DATPROF Subset uses is to access the data via one central table in the database. This table is called the Start table. Other data is extracted based upon a Foreign Key relation with the Start table. During deployment of the Subset project only a connection between source and target database is needed. No data passes through

DATPROF Subset. This has a highly positive impact on performance.

Supported databases

DATPROF Subset 4.7
Native Support Databases
Oracle 11.2 and above Microsoft SQL Server 2008, 2012, 2014, 2016, 2017, 2019 IBM DB2 LUW 10.5 and above IBM DB2 for i7.2, 7.3 PostgreSQL 9.5 and above MySQL 8.0 MariaDB 10.4
SupportOperating Systems
Microsoft Windows 7 or higher | Microsoft Windows Server 2012 or higher

ORACLE

Microsoft SQL Server

PostgreSQL

IBM DB2

MariaDB

MySQL

Data provisioning with DATPROF Runtime

DATPROF Runtime is a Web-based tool to manage and deploy predefined Privacy and Subset projects. Additionally, OS scripts can be added to run too. The tool provides easy deployment and running of application packages in different database environments.

It allows you to start applications and monitor their progress using a web-based interface or the API system. The use of the permission system allows you to distinguish administrators from users.

Schedule the availability and provisioning of test data with the integrated Runtime API. Automate test data with your corporate scheduler or integrate itdirectlywithinyour CI/CDtools.

DATPROF Runtime is the execution platform for DATPROF applications

DATPROF PRIVACY

Data Masking

Enableteams withhigh qualitymasked productiondata andsecure privacy sensitive data.

DATPROF SUBSET

Data Subsetting

Subset theright amountof test data andreducethestorage costsandwait timesfornew test environments.

Request a DATPROF Runtime demo

Benefits of test data provisioning

Central TDM

Manage andmonitor the executionof alltest data fromoneTDM portal

Save time

Automatethesub-setting, masking and generation of test data

No more waiting

Reduce the wait and approvalstime fornew test data environments

With the built-in trigger & event system, scenarios can be fully automated like provisioning masked subsetted test data over a complete chain of applications. Portal users can login and refresh their own test data environment directly within DATPROF Runtime.

DATPROF Runtime training videos

Supported databases

DATPROF Runtime 4.2.3
Native Support
Databases Oracle 11.2 and above Microsoft SQL Server 2012, 2014, 2016, 2017 IBM DB2 LUW 9.7, 10.5, 11.1 IBM DB2 for I 7.2, 7.3, 7.4 PostgreSQL 9.5, 9.6, 10.5
SupportOperating Systems
Microsoft Windows 7 or higher Microsoft Windows Server 2012 or higher

ORACLE

Microsoft SQL Server

IBM DB2

PostgreSQL

Data discovery with DATPROF Analyze

Discovering data sources can be real challenging! Getting insight in your data quality and finding privacy sensitive data within complex applications is time consuming. DATPROF Analyze helps users to understand their data sources better and profiles data for quick insights.

Use the profile engine to discover where privacy sensitive information is stored and extend it by adding your own profile rules with regular expressions, list of values or other expressions. Visualize inbound and outbound data relations to quickly gather insight in data dependencies and getabetter understandingofyourdatamodel.

Features

- Build and analyze full data statistics
- Profile data for finding privacy sensitive
- data Visualize data dependencies
- Export and distribute findings report

Request a DATPROF Analyze demo

Benefits of test data discovery

Quick insight
Get direct insightin your data sources minutes after connecting

Find sensitive data
Profile your databases to discover where and which privacy sensitive information is stored

Data quality
Find and discover data anomalies to improve your test data requirements

Discover and learn more about your data quality by profiling and analyzing your application databases with DATPROF Analyze. Quickly gather statistics over your data to get better insight in your data quality and learn more aboutyourdatabaseinminutes.

DATPROF Analyze training videos

Supported databases

DATPROF Analyze1.3.0
Native Support Databases
Oracle 11.2 and above Microsoft SQL Server 2008, 2012, 2014, 2016, 2017, 2019 IBM DB2 LUW 10.5 and above IBM DB2 for I 7.2, 7.3 PostgreSQL 9.5 and above MySQL 8.0 MariaDB 10.4
SupportOperating Systems
Microsoft Windows 7 or higher | Microsoft Windows Server 2012 or higher

ORACLE

Microsoft SQL Server

PostgreSQL

IBM DB2

MariaDB

MySQL