data business

dbRules
Solutions for Business Rules Management

What are Business Rules?

Business rules are essential guidelines and principles that an organization establishes to govern its operations, processes and decision-making. These rules serve as a framework to ensure consistency, compliance and business strategy.

In data management business rules translate into how data are collected, stored, processed and shared. Rules can apply in almost all functions of an organization and across industry verticals. Business functions like finance, controlling, regulatory reporting are often most intensive areas for business rule.

Here are examples of rules that you may find in your daily business.

Finance & Banking

- Balance sheet and financial statement
- Customer classification for loans
- Product category determination
- Calculation of risk weights
- Account determination
- Cost allocation keys

Production

- Conditional event raising and notification
- Maintenance cycle determination
- Input material batch choices
- Quality control check rating

IT Services

- Device allocation by function/pay grade
- Choice of public cloud as hyperscaler
- Cost distribution to business areas
- Automatic allocation of storage

Human Resources operations

- Equal opportunity compliance rule
- Employee competency mapping
- Compensation and benefits
- Performance appraisal
- Remote work policy
- Leave and time-off

Analytics

- Business consolidation rules
- Information augmentation
- Validation of input data
- Reporting rules

Trading

- Trading halts and circuit breaker rules
- Order type and execution rule
- Best execution rule
- Settlement rules

dbRules for SAP S4/HANA® & SAP BW4/HANA®

dbRules simplifies business rule management in your enterprise by acting as the central point for establishing, distributing and governing business rules.

Rule Definition

A user-friendly Excel® add-in helps users maintain and govern their business rules. The rules are structured in a WYSIWYG principle in mind. Users can on the very first glance understand what the rule attempts to define. Users can run simulations on the rules as defined by them, allowing them to prototype, build and test iteratively.

A powerful rule definition language enables setup of complex rules, whilst still keeping the overview on the broad requirement.

Master data help is available at their fingertips in case they do not remember the exact code or ranges.

Rules are maintained and released for use on production system or put on a CTS transport for deployment.

Rule Generation

The dbRules engine and repository embed in to your existing SAP® S4/HANA® or BW4/HANA® application and generate runtime artifacts implementing the business rules.
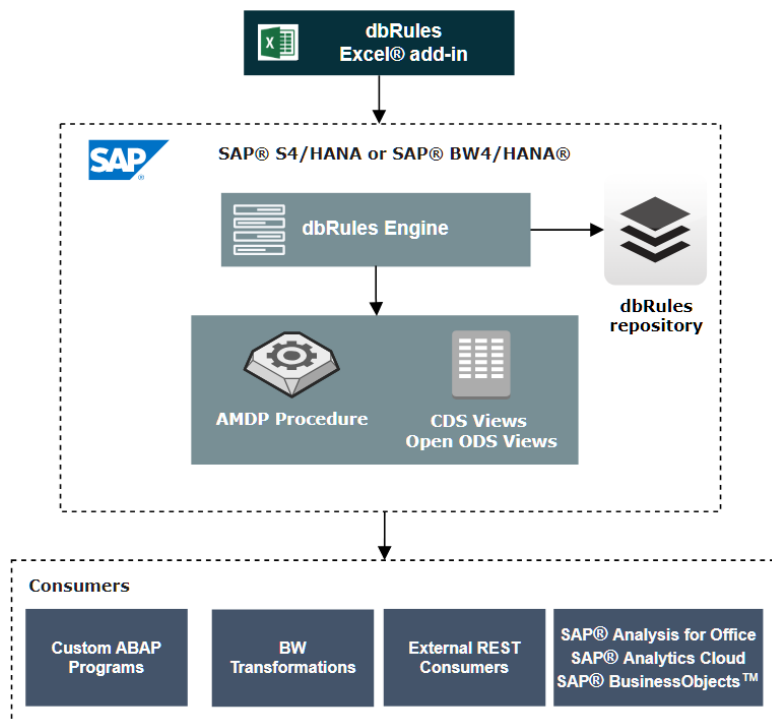
Business rules are translated into into runtime artifacts like database procedures and views ready for integration by a developer.

Rule Integration

The runtime artifact, a native AMDP database procedure, can then be called in ABAP programs, BW transformations, BI-IP planning functions or customer exits. Generated CDS Views and BW4/HANA® Open ODS views can be directly consumed in real-time dashboards in SAP® Analytics Cloud, SAP® Datasphere, SAP® BusinessObjects™ or SAP® Analysis for Office avoiding data replication.

Rule Governance

The dbRules repository manager deliver role-based access control (RBAC) and change audit trails. These are integral components that can significantly enhance the value of rule management software. RBAC ensures that users have appropriate access permissions based on their roles, improving security and streamlining workflows.

On the other hand, the change audit trail offers transparency and accountability by recording all rule changes, facilitating compliance, error resolution, and historical analysis.

Together, these features empower organizations to efficiently manage rules, collaborate effectively, adapt to evolving needs, and maintain the integrity of their rule-based processes, ultimately bolstering security, compliance, and operational efficiency.

dbRules value proposition

Save on implementation, maintenance and energy costs. Across your enterprise landscape, our software can significantly reduce the costs and energy consumption associated with deploying new projects. By leveraging our efficient and optimized implementation, you avoid resource-intensive processes. This reduction in implementation time and effort translates directly into cost savings for your organization. Additionally, our solution is designed to operate with minimal computing power needs.

Bug Fixes/Enhancements

Standardised approach to business rule implementation eliminates bugs arising in core logic. Future enhancements require less effort as well.

90%
6 1 PT

Development

Developers now act as integrators of generated modules without having to design, implement and unit test core business logic.
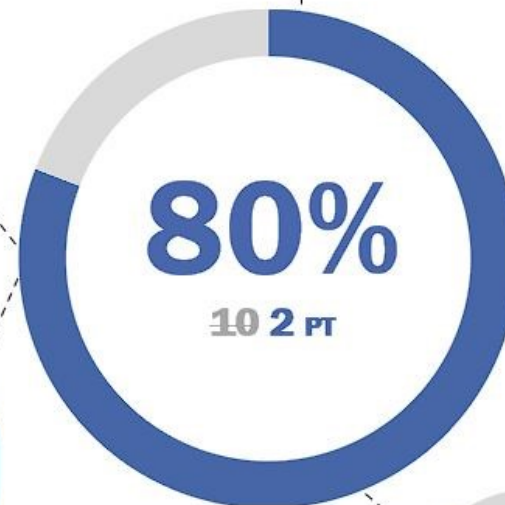
80%
~~10~~ 2 PT

Requirement Gathering

Business users formulating and testing rules independently and iteratively without IT interaction can result in almost 60% of time/costs savings

60%
3 1 PT

CPU Usage

Reduced CPU Usage leading to Cost savings on public cloud environments and energy savings on on-premise

90%

By embedding the dbRules generated artifacts into SAP HANA®'s parallel processing engine, we have experienced ETL workloads are reduced from 24-hour ABAP job to a 5-hour process. This cuts a 700W server's energy use from ~16.8 kWh to ~3.5 kWh, resulting in up to **80% reduction in energy consumption**.
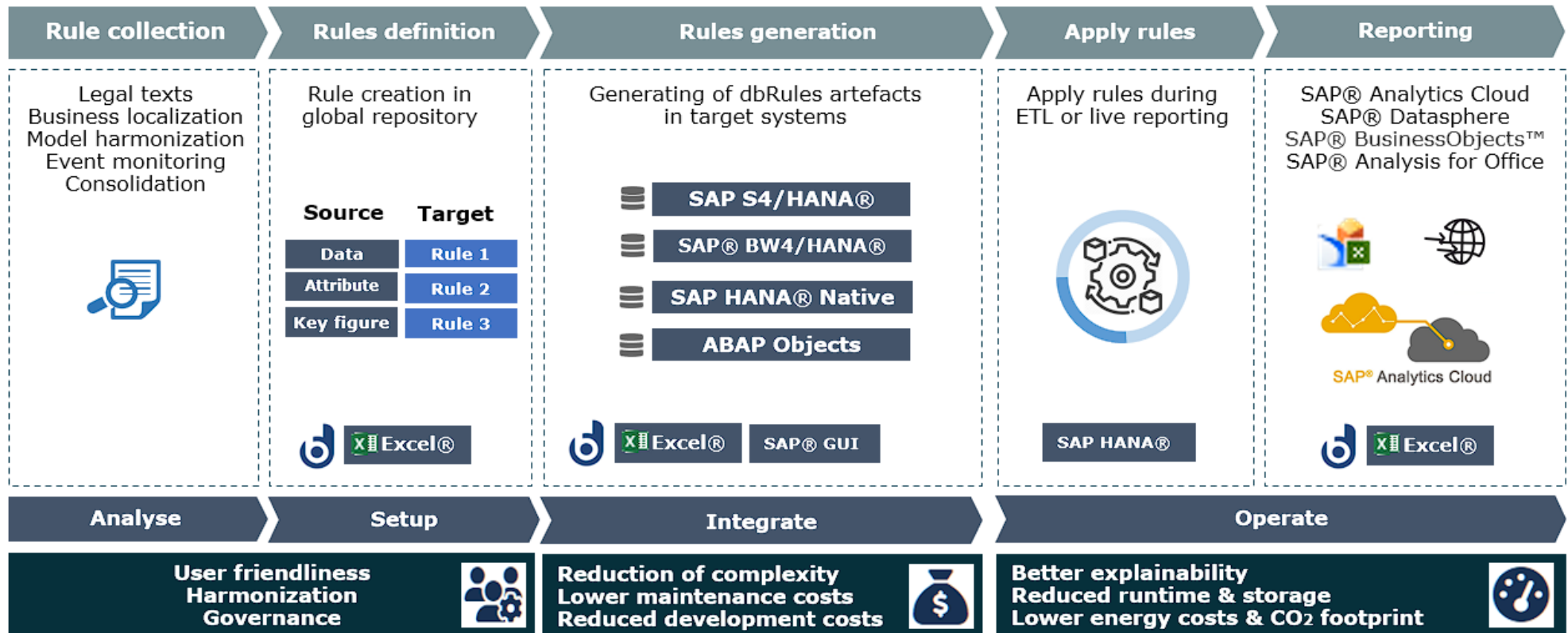
We are strongly committed to **reducing CO_2 footprint** of such compute jobs in large enterprises!

dbRules architecture overview

Our architecture integrates into SAP S/4HANA®, SAP BW/4HANA® and SAP BWonHANA® customer landscapes.

We support 3 tier system landscape scenarios with integrated transport management and versioning.

We generate SAP HANA® native and business warehouse artefacts to ensure long-term compatibility.

We also offer down-port services for clients with older SAP BWonHANA releases.

dbRules features

Cost and Efficiency Gains

Significant performance improvements through push down of rules to HANA database
Centralized oversight of all business rules operating in the system
Reduced development costs through low-code / no-code approach
Low entry barrier for new team members
Ease of knowledge Transfer
Time and energy savings

Rule Language

Intuitive tabular rule structure
Powerful language functions for
complex scenarios
Match First and Match All Options

Repository

Deep folder-based structure for organising rules
Personal user space for testing and learning
Fast search for objects in the directory
Detail audit trail of all released versions

Governance

Access to objects can be differentiated across read, write, release and delete
Aligned to standard SAP practices for authorisation management
Role Based access control to object in repository
Full transparency into change audit trail
Recovery of prior states of rules

Deployment

Released rules are written to a transport request and imported into subsequent systems
Required post deployment actions in target systems are implemented for corrections or
activations
Support for maintenance on production systems

Frontend

Excel® based frontend for low entry barrier to rules creation, maintenance and testing
No developer assistance needed for rule creation and prototyping
Internationalisation for German and English formats
Record of changes into transports on Release

Integration

dbRules runs on SAP BW/4HANA®, SAP BWonHANA® and SAP S/4HANA®
External applications can apply rules onto their data using a REST API
dbRules integrates well into your in-House development practices
dbRules is designed for use with SAP® Analytics Cloud
dbRules is compatible with SAP® BusinessObjects™
dbRules works well with SAP® Datasphere

Our Company

Data Business GmbH was founded in 2016 to provide specialized consulting services in data engineering and related technologies. We focus on practical solutions involving data Lakehouse architectures, data engineering, analytics, and enterprise resource planning using SAP® products like SAP® S4/HANA, SAP® BW4/HANA, and open-source technologies. As your consulting partner, we work closely with you to develop customized IT solutions that address your specific business requirements.

We understand that effective data management is crucial for informed business decisions. Our approach is to provide reliable consulting services that help organizations better utilize their data through sound engineering practices and appropriate analytical solutions. We're committed to delivering practical results that meet each client's unique needs and technical environment.
Data Business offers consulting expertise in four key service areas:

- Data Engineering: As a specialized SAP consulting firm, we focus on data engineering solutions that make a real difference. We work closely with our clients to develop tailored information systems that support better decision-making and drive meaningful business results. Our boutique approach ensures personalized attention and solutions designed specifically for each client's unique challenges.

- Data Analytics: We provide practical analytics services to help organizations better understand and utilize their data. Our consultants work closely with clients to identify key business questions and develop focused analytical approaches. We extract meaningful insights from your data and present them through clear, actionable reports that support informed decision-making and business planning.

- Data Science and AI: We help organizations apply data science techniques to better understand and utilize their business data. We work with clients to identify where methods like data mining, machine learning, and analytics can provide valuable insights. Our consultants focus on practical applications that align with your specific business needs.

- Data Platform Solutions (Cloud/OnPrem): We provide consulting services for data platform design and implementation. We help organizations develop practical solutions using on-premise, cloud, or hybrid approaches based on their specific requirements. Our consultants focus on delivering secure, reliable platforms that integrate effectively with existing systems and support your business objectives.

Core Team

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25+ years cross industry experience
Touristic, Banking, Logistics, Consumer
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Hybrid Cloud & Data Warehousing
SAP® HANA & Infrastructure
Full Stack Architect
IT, Banking, Energy