Qlik Core

A new cloud development platform for
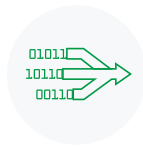data-driven analytical applications

LEAD WITH DATA™ Qlik Q

Qlik Core® is a new cloud development platform for building data-driven applications leveraging the Qlik® Associative Engine. It's designed for developers building "non-BI" data-driven applications who need to:

1. Generate insights

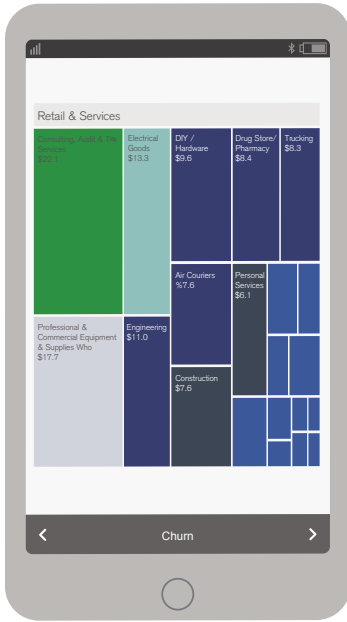2. Consume a wide array of data sets

3. Deliver responsiveness

4. Innovate in presentation, scale, and delivery venues

Using an open-source distribution model, Qlik Core delivers the Qlik Associative Engine with supporting API and libraries for integration into projects. These projects can be deployed using the Qlik scalable-nodes architecture to deliver best-in-class technology while achieving massive scale.
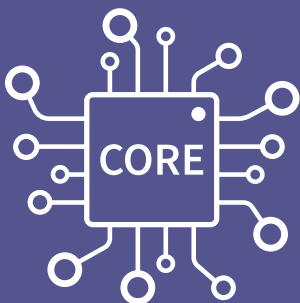
Customizable app development in the modern cloud.

The foundation of Qlik Core is the proven, industry-leading Qlik Associative Engine that delivers application deployment readiness using proven and emerging web technologies like Docker®, Kubernetes® and Linux®. Qlik Core is extended with Qlik-authored open-source components that can be used to develop, deploy and manage applications across a cluster of containers in a standard Docker implementation.

Retail & Services

Consulting, Audit & Tax Services $20.2

Electrical Goods $13.3

DIY / Hardware $9.6

Drug Store/ Pharmacy $8.4

Trucking $8.3

Air Couriers %7.6

Personal Services $6.1

Professional & Commercial Equipment & Supplies Who $17.7

Engineering $11.0

Construction $7.6

Churn

Associative Difference

Qlik Core is purpose-built for developers and provides direct access to the Qlik Associative Engine. The Associative Engine optimizes modeling, building and data analytics, enabling developers to engage in complex analysis with the ability to:

• Freely explore their data to find associations within large data sets
• Search and filter data in a non-hierarchical way
• Determine relationships in data sets and identify outliers rapidly

The Qlik Associative Engine fully integrates data from multiple sources without suffering data loss from executing SQL joins at load time. In working with large, disparate data sets, the Associative Engine provides a centralized location to explore data across multiple sources, increasing the value of an application by providing incremental levels of insight immediately. Qlik Core provides for data merging using either halyard.js or scripting.

One of the key advantages of the Qlik Associative Engine is its ability to provide state management for application development. The Associative Engine manages and stores the state of functions and objects on the page. The responsive nature of the engine saves a significant amount of time and effort for developers in managing the state while creating interactivity in the application.

The Qlik Associative Engine

The Qlik Associative Engine integrates a full set of record-level data from multiple sources into its in-memory engine. Qlik provides a robust set of data-preparation and integration capabilities for transforming and bringing together disparate data sources, including visual interfaces for loading and transforming data, smart data profiling of relationships and values, and powerful scripting for complex data integration scenarios.

The Qlik Associative Engine was built to provide highly scalable dynamic calculation and association for large numbers of users on massive data volumes. This unique and patented engine technology is the primary advantage of Qlik, with over 15 years of innovation and investment.

Qlik-authored open-source components

Qlik Core includes six open-source libraries, providing developers with a full range of web technology choices:

enigma.js is a JavaScript® library that provides interaction with the Qlik Associative Engine. It can be used in a browser or in a Node.js environment. With enigma.js, a developer can exploit the associative insights that the Qlik engine provides. Using enigma. js a developer can build logic not only to retrieve data matching certain criteria, but also associative relationships – that is, what is excluded from a particular context or adjacent to a set of known values. GitHub documentation

halyard.js is designed exclusively for Qlik API consumers to get data into the Qlik Associative Engine. The library is split into two pieces, making it more flexible and extendable. One part generates script and connection artifacts, and the second takes those artifacts and pushes them to the Qlik Associative Engine through enigma.js. One of the most powerful features in halyard.js is the capability to inline load data without using a connector. This enables the user to load their raw data to a halyard.js table before the actual reload and gives users the ability to choose any tool to access their data without having to depend on various custom connectors. One example could be protected web data resources that currently aren't accessible with the web file-connector. GitHub documentation

Mira is a Qlik engine discovery service for managing how your projects and users are orchestrated across an elastic topology.

picasso.js allows developers to quickly and easily create d3-based Qlik visualizations using a declarative approach. picasso.js is platform-agnostic, allowing the developer to create the same visualization code on every other data layer and substantially increasing speed of development.

leonardo-ui is used within Qlik, providing a variety of graphical UI components. The markup of these components can be used in extensions, mashups and widgets. It works well with popular CSS frameworks such as Bootstrap and Foundation. Using leonardo-ui can speed up your UI development process and keeps styles in sync with other Qlik Sense assets. GitHub documentation

after-works.js is a unified testing framework capable of performing unit, component, integration, and end- to-end tests. It is the testing framework used by enigma.js and leonardo-ui.

Infrastructure on demand –
Docker and Kubernetes

Qlik Core delivers the components necessary to deploy and manage data-driven applications across a cluster of containers in a standard Docker implementation. Docker is the only container platform provider to address every application across the hybrid cloud. Containers and virtual machines have similar resource isolation and allocation benefits, but function differently because containers virtualize the operating system instead of hardware. Containers are more portable and efficient.

Docker containers are based on open standards and run on all major Linux distributions, Microsoft® Windows®, and on any infrastructure including VMs, bare-metal and in the cloud. A Docker container image is a lightweight, stand-alone, executable package of software that includes everything needed to run it: code, runtime, system tools, system libraries, settings and runs the same whether in Linux or Windows-based applications. Docker containers isolate applications from one another and from the underlying infrastructure. It provides the strongest default isolation to limit app issues to a single container instead of the entire machine.

Qlik Core also uses Kubernetes, a portable, extensible open-source platform for managing containerized workloads and services that facilitates both declarative configuration and automation. It has a large, rapidly growing ecosystem. Kubernetes services, support, and tools are widely available.

Qlik Core as developer platform and embedded engine component

Qlik Core enables developers to build an unlimited variety of data-driven applications. Once the data is ingested into the Qlik Associative Engine, there are unlimited possibilities for applications, including:

- Workflow
- Search
- Data presentation
- Analytics and visualizations

Developers are looking for flexible, open, componentized platform pieces or a toolkit approach to help serve the growing number of digitally-driven use cases, especially those requiring massive scale and distribution across a variety of stacks. With Qlik Core, developers with minimal to no SQL experience can rapidly build, assemble and deploy an application once the data resides within the Qlik Associative Engine.

Qlik Core advantages:

Embed Anywhere

Today's businesses need to embed analytic capabilities along the processes and workflows that make up the backbone of both the enterprise and the ecosystem. Qlik Core allows developers to embed the Qlik Associative engine within a pre-existing stack solution – providing simple, familiar building blocks for crafting a spectrum of analytics solutions and capabilities for any size organization. Docker technology also makes readiness and deployment simple, allowing Qlik Core to be plugged into the target application infrastructure without having to consider proprietary concepts or server scaling requirements. The Qlik Core-powered component is ready to scale with your cloud-based infrastructure.

Enterprise scale and elasticity

The Qlik Core Linux-based engine allows for easier scaling and deployment. The use of Docker containers allows for elastic expanding and contracting of your topology based on usage, size of applications or spikes in demand. Organizations can unify large numbers of data sources for analysis and handle complex data integration scenarios without the need for external tools or data warehouses.

Responsive nature

The Qlik Associative engine maintains a unified context for analytics in an application. For a developer this means that the objects or elements of an application tied to a single data model in the engine will be automatically synched and maintained in the same state without having to introduce specific code. This responsiveness can save time and effort in creating interactivity by allowing development efforts to be re-deployed.

Qlik Q®

About Qlik

Qlik is on a mission to create a data-literate world, where everyone can use data to solve their most challenging problems. Only Qlik's end-to-end data management and analytics platform brings together all of an organization's data from any source, enabling people at any skill level to use their curiosity to uncover new insights. Companies use Qlik products 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 48,000 customers around the world.
qlik.com