jACOB

The quickest way to create powerful web applications

Now at last there is an all-in-one web based enterprise software product that:

– Reduces development times by more than fifty percent and is far less prone to programming errors and software bugs.

– Runs uninterrupted for months on end without a single reboot.

– Offers hot deployment. Adds new applications or versions without switching off the server.

– Provides access to and uses your existing standard or legacy software applications. (Multiple data source access).

– Comes with a rule engine to support simple workflows.

– Provides the end users with screens tailored to their business needs. (No cluttering of screens with unwanted fields).

– Features a point and click report writer that enables end users to create their own reports on the fly.

In addition jACOB offers:

– Thin client architecture.

– Multi entity functionality.

– Full scalability.

– Multi channel communication including connection to CTI.

– WebDAV support for document management without using applets.

– Multi lingual design and easy to use translation tools.

jACOB utilizes standard software architecture.

The four jACOB elements

The jACOB **Platform** is a standard web application utilizing Apache Tomcat, IBM WebSphere™ or BEA WebLogic™ or others as a middle layer and a standard web browser (Internet Explorer™ version 5.x or higher, Firefox) as a presentation layer. It includes a core engine and runtime, an administration console and its own report writer plus a plug in for standard report writers like Jasper Reports and BIRT.

jACOB's three-tier architecture that clearly separates data access, business logic and user interface makes it easy to quickly develop high quality server applications. jACOB includes an eclipse™ based **Designer** that supports these three layers and takes you step-by-step through the development process. Program development was never so simple!

jACOB comes with a sophisticated simple to operate administration console - the **ControlCenter.** From here you can amongst others deploy and administrate jACOB applications, define and maintain the data sources or do the scheduling of recurring asynchronous backgroundjobs. Message queue management (emails, fax, sms) and automatic mailing of messages to predefined addresses and at predefined times is as well included as monitoring of time consuming SQL queries to find performance bottlenecks on data base layer or Monitoring of memory usage and system processes.

jACOB out-of-the-box **Applications** include the jACOB platform and the Designer. The applications are easy to use and as a rule the functionality is based on that what is commonly used by all businesses. Specific individual business requirements can be easily added or adapted by using the jACOB Designer. There are no redundant screens and no screens cluttered with unwanted fields and information. The end result is a product that is totally geared to the needs of your organization. jACOB business applications are provided in source code.

The jACOB Designer

The *j*ACOB three-tier architecture clearly separates data access, business logic and user interface. It makes it easy to quickly develop high quality server applications using a three-step process that hardly involves any traditional programming:
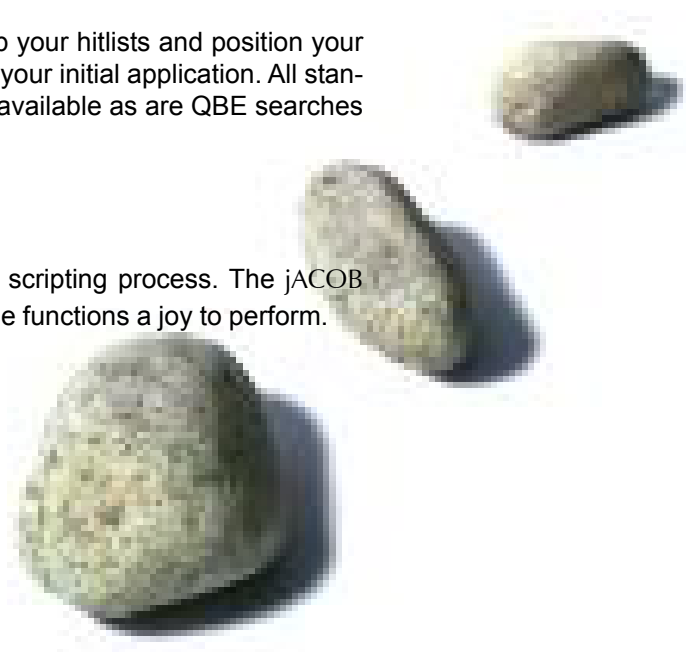
Step 1: Model the data

*j*ACOB's powerful **graphical** tool can reverse engineer existing databases or can be used to create new database schemas. Relations or relation sets are also graphically created.

Step 2: Create the initial application

With the Designer's layout editor   you develop your screens, develop your hitlists and position your buttons using a **point and click process**. After this you can generate your initial application. All standard functions such as for instance new, change and delete are then available as are QBE searches and notification mechanisms. Yes, even reports function at this stage.

Step 3: Customize the application

This is where the **business rules** are established, mostly though a scripting process. The *j*ACOB Designer has an extensive API that makes the development of run time functions a joy to perform.
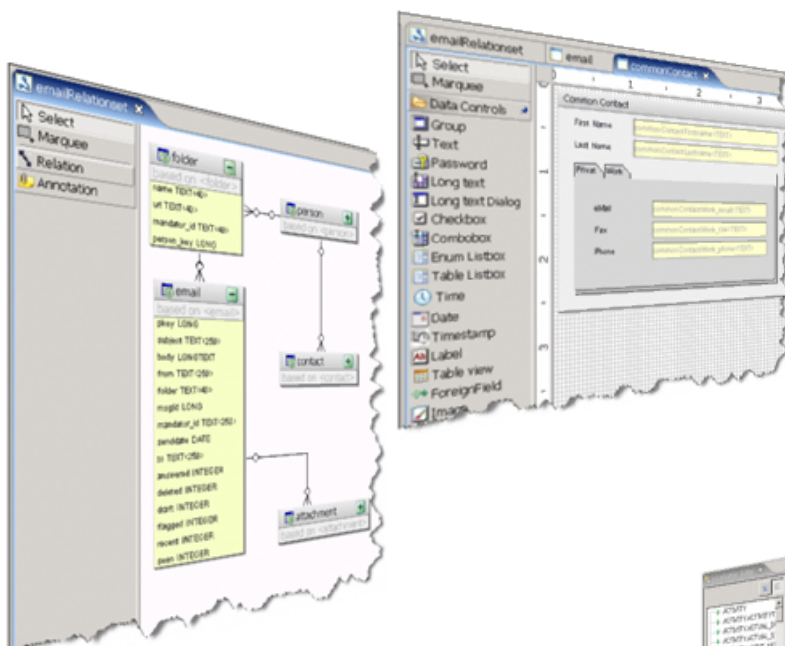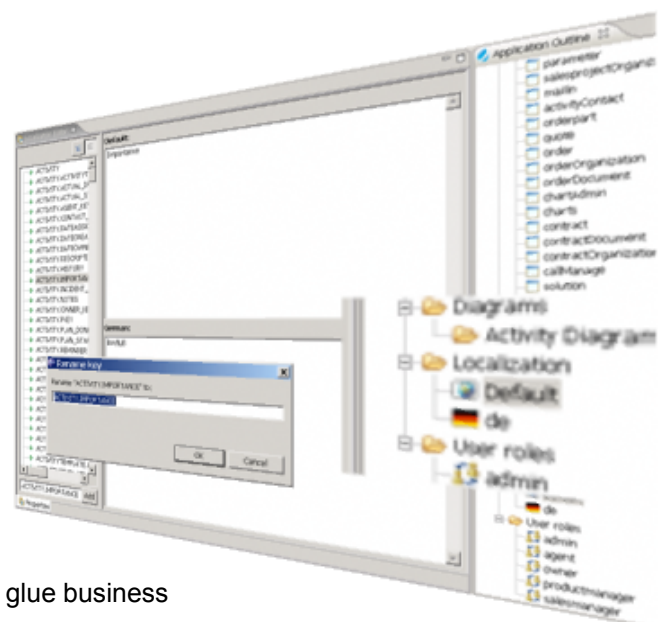
The jACOB Designer

jACOB *Designer features include:*

- A best of breed **Eclipse** and Java development environment.
- Full debugging functionality of jACOB applications running in remote environment.
- Ready to go wizards to create new business applications.

- Powerful editors to create application screens and data structures.
- **Graphical screen editors** with drag and drop functionality and powerful editing tools functioning like guards to keep elements in line.
- Graphical relation/relation set editors with drag and drop functionality and test features to inspect results in screen editors.
- Editors for tables, fields and keys with the ability to reverse engineer already existing databases.

- Generation of **multi language** core messages through localized resource bundles and depending on the user's preferred language.
- Support of different number and data time formats.

- Jump to Java hook functionality from all editors. (Easy to glue business logic to screen and data elements).
- Formatting of GUI elements like font, size, color.
- Integration of foreign libraries in any application.
- **WebDAV** support for document management without any applet.
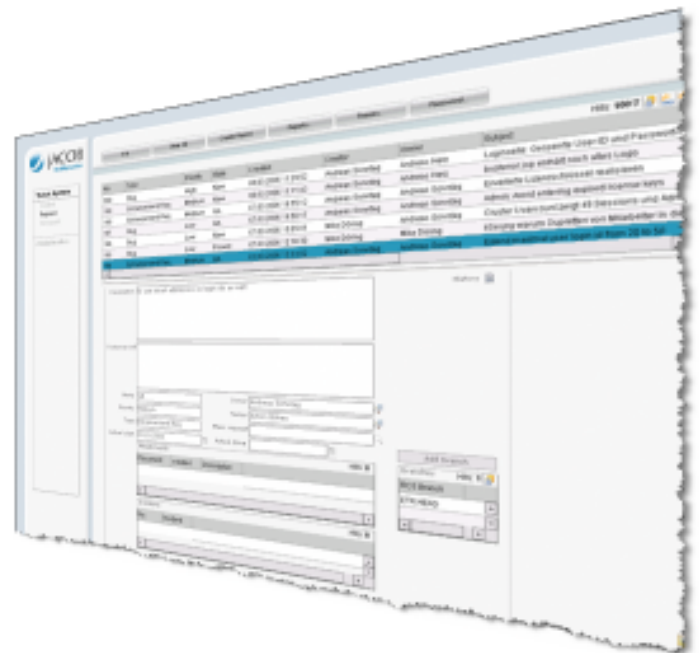- Rule engine.

The jACOB Applications

Designer support application QualityMaster

This application can be **integrated with the jACOB Designer** whereby a programmer can see all his design requests without leaving the tool, and is able to develop or repair code and check the code into e.g. CVS against these requests. The application provides an audit trail of who has done what and when. This gives a most simple way of printing out all the new features, enhancements and bugfixes that come with a new release of an application

The business applications

jACOB out of the box applications include the jACOB platform and the Designer. The applications are easy to use and as a rule the functionality is based on that what is commonly used by all businesses. Specific individual business requirements can be **easily added or adapted** by using the jACOB Designer. No redundant screens and no screens cluttered with unwanted fields and information. The end result is a product that is totally geared to the needs of your organization.
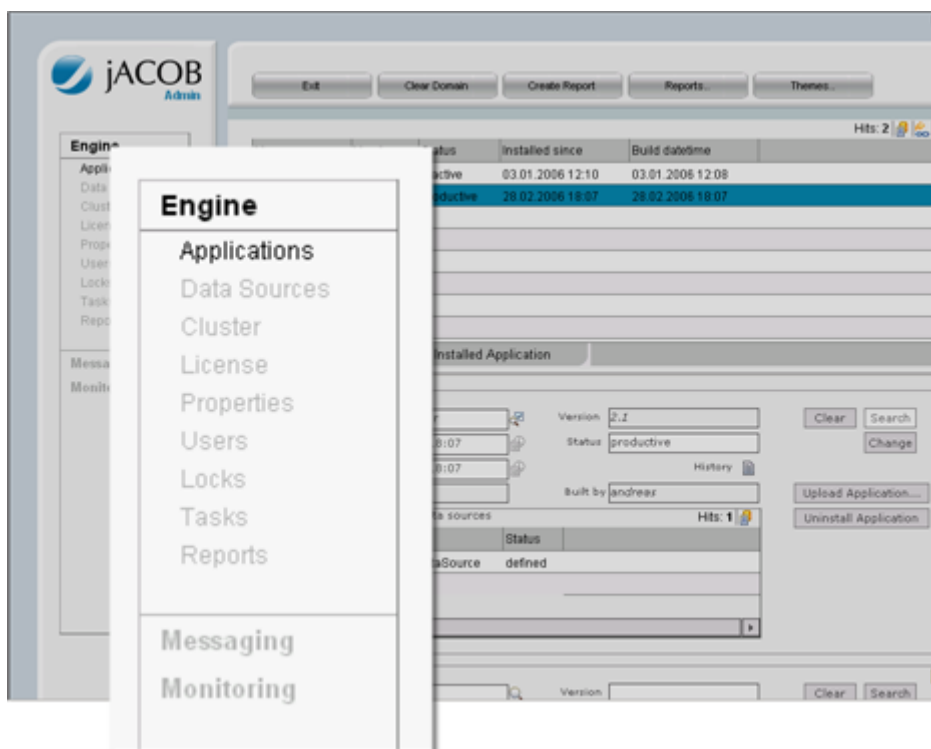
jACOB business applications are provided in **source code**.

jACOB business application library:

jCRM –   manages prospective customers, existing customer accounts, contracts, sales and marketing campaigns, pricing, commissions, internet shopping, and sales orders.

jMAIL –   a fully web based email client which can be integrated into any jACOB application.

jSALES –   supports the tracking of sales projects conducted by sales teams or individual sales representatives.

jSERVICE – Inbound helpdesk.

jSERVICE – outbound helpdesk.

For more details on any of these applications please ask for our application flyers.

The jACOB ControlCenter

jACOB *ControlCenter Functionaliy*

- Deployment and **administration** of **jACOB** applications.
- Definition and maintenance of data source, e.g. set-up and functionality reconfiguration.
- **Configuration** of **jACOB** core engine and applications by means of properties on 3 levels (engine-, application- and user-level).
- Inspection of user sessions, record locks, scheduled tasks, reports and jAN (jACOB application notificator) messages.
- **Monitoring** of time consuming SQL queries to find performance bottle-necks on database layer.
- Monitoring of memory usage and system processes.

The jACOB platform

Hot deployment

jACOB supports **hot deployment**. In most cases server and clients do not need to be switched off to provide upgrades of the jACOB applications. The only impact on the user is when new functionality requires additional training.

Parallel operations of different applications and or different versions of the application are possible.
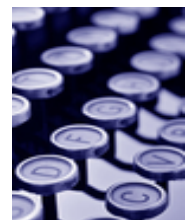

Data access component

The data access component includes:

- Access and abstraction of data- particularly (but not exclusively) for data in relational databases.
- Support of **commercial and open source** databases.
- Simultaneous access to different data sources.
- Generally applicable QBE (Query by example) functionality.
- Data caching per user.
- Transaction support.
- General access to administration and system data for control and monitoring of individual components.

Report writer

Go into report mode. Generate a report heading. Click and point the fields you want included in your report. **Export to Excel**. Modify your layout, as you want it. That's all the user needs to do to create his own report. In addition *j*ACOB provides a plug-in to standard report writers such as Jasper Reports or **Birt**.

Scalability

One of the many features of *j*ACOB is that it is fully scalable.
- Multiple jACOB instances (nodes) can be easily combined into a cluster.
- jACOB instances are running within the same **cluster**, when sharing the same repository database.
- Deploying a new application on one node makes the application available on all nodes.
- User sessions are bound to a node (there is no session sharing).
- By means of a **load balancer** user sessions can be uniformly distributed across all *j*ACOB nodes.