



RealityCharting® Enterprise Software

Is a java based application utilizing any database supported by Hibernate (www.hibernate.org) that resides on a customer's server environment and displays the application through a user's web browser.

RealityCharting® enterprise software is offered in a standard configuration to customers who supply a J2EE (Java 2 Enterprise Edition) production environment. The standard is based on a Web server that provides Sun JDK or JRE with Java 1.4+, a Linux or Windows operating system, and an Oracle or SQL Server database.

Customization work to deploy the RealityCharting® enterprise software in a user-defined environment is commonly done. We can work with you to integrate your other applications such as a Active Directory, single sign on applications, and corrective action tracking systems.

This document describes the system requirements, utilized technology, and potential impact on your existing system.

System Requirements

Client Requirements

- Internet Connection
- Web Browser IE 7+
- Adobe Flash Plug-in 10+
- Adobe Acrobat Plug-in 7+

Server Platform Requirements

- Java Application Server
 - Sun JDK or JRE with Java 1.4x
- Database*:
 - Oracle 9+
 - SQL Server 2000+
- Minimum Server Size
 - Pentium 4 - 2.0 GHz
 - 1 GB of RAM
 - 100MB Network
 - Based on 300 Users with a Dedicated Server.

* RealityCharting® can utilize any database supported by Hibernate.

RealityCharting® Application Layer

The RealityCharting® application consists of four subsystems: User Interface, Client Management, Database Management, and Database.

- **User Interface:** The User Interface subsystem comprises clientside web-pages and the shockwave-flash object which contains the actual GUI of RealityCharting®.
- **Client Management:** The Client Management subsystem comprises server-side files that respond when invoked by the User Interface.
- **Database Management:** The Database Management subsystem comprises server-side files that also respond when invoked by the User Interface but they work specifically with the Database to get the work done.
- **Database:** The Database houses all the data outputted from the User Interface subsystem of RealityCharting®.



Enterprise Software Features

Password Security

User and Administrator passwords are encrypted in the database. The Administrator cannot identify a User's password by looking at the field entry where the characters are displayed with an asterisk (*). When an Administrator sets up a new user or changes a user's password the application forces the user to create a new password the next time they login to their account. The user name and password are maintained by the user and can be reissued by the Administrator as necessary.

When an Administrator sets up a new user or changes a user password, the application requires the user to create a new password the next time they login.

RealityCharting® authenticates authorized users with a unique user name and password that is a minimum of 7 alphanumeric characters.

File Security

File security is based on session variables and users IDs added during the login process. A user with a valid session/ID may open another user's files, and will have to rename it in order to save it. The original files can only be saved by the owner and files can only be deleted by the Administrator.

Input/Output (I/O) Operations

Input/Output operations communicate with the database server through connection beans. The file's last saved date, owner, and data information are saved to the database. The input/output operations are file list, open, and save.

The RealityCharting® flash component communicates to the application server through Java Server Pages (JSP). During I/O operations RealityCharting® sends posts to the database server and expects named value pairs in response. All data posts contain date/time information to eliminate caching.

Exporting Documents

When end users are exporting text from RealityCharting® a pop-up window is used. This is performed with javascript: no server interaction needed.

Create PDF

RealityCharting® creates PDFs internally in ASCII format but given the sandbox security of the flash object, is unable to save the PDFs locally. RealityCharting® posts the PDF file and PDFoutter.jsp returns the PDF without any server side manipulation. The returned PDF may be saved locally or opened in Acrobat directly.

Import File

Because of the sandbox security of flash object, RealityCharting® is unable to access local RealityCharting® files (.rca). To import Realitycharts a pop-up window is used to upload files to the server, which are bounced back in a new flash object. The flash object communicates with RealityCharting® through a local connection passing the uploaded rca file to RealityCharting®. When the operation is done the pop-up closes.

File Ping Rate

As most work is done client side by RealityCharting® there needs to be a way to maintain a session. The ping page is requested such that RealityCharting® maintains the session. The ping rate can be adjusted.

Enterprise Software Deployment Diagram

Client

Requirements

- Web Browser IE 7+
- Adobe Flash Plug-in 10+
- Adobe Acrobat Plug-in 7+
- Connected to Server via LAN or Internet

Graphic User Interface

HTTP

HTTP

Application Server

Requirements

- Java Application Server (Sun JDK or JRE with Java 1.4x)
- Pentium 4, 2.0 GHz *
- 1 GB RAM *
- 100 MB Network *

* based on 300 active users with a dedicated server.

Client Management

- Edit RCA
- File Import
- Security
- Tutorial
- Fast Start

Database Management

- Open RCA
- Save RCA
- List RCA's
- Configure Database

JDBC

Database Server

Requirements

- Oracle 9+
- SQL Server 2000+

Database

- Table: chart (1.6 GB)
- Table: chartuser (1 MB)
- Table: adminuser (1MB)