INdicio Framework

INdicio Framework for Rapid Application Development

INdicio™ Framework is a full featured, multi-tiered platform for the rapid development of complex, multilingual applications from cloud to mobile and wearable devices. INdicio makes it fast and easy to deploy a variety of enterprise information management and geospatial information solutions.

NoSQL Data Model

INdicio Framework offers a NoSQL data model that speeds information model development and evolution by providing high level constructs like application objects, taxonomies, associations, and logical collections. This data model provides full geographic support, and the ability to treat your data in a structured or unstructured fashion.

Features

INdicio Framework provides powerful governance features including automatic assignment of globally unique identifiers to all data objects, a built-in application level audit trail, user defined life cycle status management, and extensible, automatic notification. It runs on Oracle and PostgreSQL databases, offering a full featured query language with logical combinations of free text, geospatial, classification, association, and property value criteria.

Applications for Development

The INdicio Framework is ideal to accelerate the development of a whole range of location-enabled applications such as social media systems; large scale mapping and navigation systems; wearable applications and application services; geo-portals and catalogues; integrated content and digital asset management systems; sensor data acquisition and data management; land, parcel, and lease registers; systems for emergency response; and machine-to-machine applications.

Building on, and embedding, INdicio's data management framework — with client support in HTML5, iOS, and Android — enables enterprises to be faster to market, and to solve key information management problems more quickly.

Technical Details

Build Location-enabled Applications Fast!

Use the INdicio Framework to get a head start on your application development and complete the project months sooner. Leverage INdicio`s unique NoSQL data model that employs high level constructs like classifications, associations, and logical collections to create and deploy your business information model far faster than working with relational or geo-relational systems. Use advanced features like automated notification to alert users or kickoff other software processes. Use available notification plug-ins for ATOM, SMS, HTTP, and SMTP, or create new ones yourself. Store message templates in INdicio that capture the key elements of the notification message.

Embed INdicio in your application and get to the finish line faster. Applies to a wide variety of location-enabled applications including social media, wearable applications, geo-portals and catalogues for services and data, large scale mapping and navigation, systems for emergency response, content and digital asset management systems, image management systems, asset registries, and registries for land parcels, leases and permits.

Business Tier

Use INdicio business tier components like automated harvester and transformer. Quickly import data from ESRI Geodatabases, office documents, or GeoTiff images. Apply user defined transformations to reformat native output as HTML, KML, etc. Use special business components for vector tiling of geographic data or computation of routes. Integrate 3rd party components like shopping carts.

Client Components and Libraries

Indicio ships with client libraries and components for HTML5, and natively for iOS and Android. Components include map displays, cache management and synchronization, graphic display and navigation of associations, and tabular displays. Quickly build custom clients that interact with INdicio services in the cloud.

Designer Studio

INdicio Designer Studio is a graphical editor for quickly creating and maintaining business information models. Models captured in Designer are verified before they are loaded into an INdicio instance. Once loaded applications can create instances of the business objects immediately. INdicio is model centric, so queries and transactions are expressed in terms of the model. No need to translate

back and forth to SQL either for users or developers.

Business information models express the objects, relationships and classifications of your business.

Data Security

INdicio supports OASIS XACML 2.0 access control, acting as a Policy Enforcement Point. Authentication is supported by integration with commercial LDAP server. Authentication can be performed against INdicio-managed CSW-ebRIM User objects (standard user-name and password credentials), or against users in an LDAP server, such as Microsoft Active Directory.

Operating Environment (Web Service)

- PostgreSQL 9.2, Oracle 11g, Oracle Express Edition (XE) 11g
- Java JDK 7
- Windows 2003
- Red Hat Enterprise Linux 4, 5
- Apache Tomcat 7x Web Server

Supported Specifications

- OGC CSW-ebRIM 1.0.1
- OGC Catalogue 2.0.2 / CSW
- OASIS ebRIM 3.0
- OGC Filter 1.1.0
- GML 3.1.1 and 3.2.1
- OWS Common 1.0

Frequently Asked Questions

Does INdicio enable codeless development?

No. INdicio provides you tools to rapidly create/evolve your business information model, to automatically harvest data from external sources, and API's for internet based queries and data transactions. You can use your favourite software IDE to create new business objects and clients using INdicio libraries.

Is INdicio a PaaS (Platform as a Service)?

No. Indicio is a cloud deployable framework that enables you to rapidly build and deploy (in private or public clouds, or any office server) sophisticated applications that include real time sensor and geospatial data.

Is INdicio a relational database?

No. INdicio runs on common relational databases like Oracle and PostgreSQL, but makes it far easier to create/evolve your business information model. You and your users work with the model you created. No translation back and forth to SQL. No more waiting on tables.

Does INdicio support mobile application development?

Absolutely. INdicio provides components like map viewers, cache manager etc. in HTML5, iOS and Android. You can add your own client components and easily integrate with ours.

I want to know if something changes in my data. Is that possible?

INdicio automatic notification makes this easy. Users subscribe to changes in particular kinds of data objects. Notifications are sent by the selected notifier. Use supplied notifiers for SMS, HTTP, SMTP, ATOM or create your own.

My application needs to support location.

Any data object in INdicio can have one or more geospatial properties (point, line, polygon). This includes not only physical objects like buildings or vehicles, but also associations and taxonomies or even individual tags (categories). INdicio provides full facilities to query by location. Moreover, geographic properties of objects can be updated over the web at any time (e.g. track a vehicle's location).

INdicio clients and client libraries support capture of geographic properties over background maps by Google and Apple, or using any OGC compliant Web Map Service (WMS). Easily display your data on background maps and images.

What about identity management?

Every object in INdicio is automatically assigned a globally unique ID; Every property, typed object, taxonomy, association or tag.

Data governance is an issue in our shop. We need more the global ID's.

INdicio provides every object with a life cycle state that is specific to the kind of object. For a contract that mean (No Contract, Under Negotiation, Signed, Breached, Discontinued), whereas for a building it might be (Planned, Under Construction, Completed, Operational, Not in use, demolished). The choice is yours. You can have as many life cycle state lists as you have kinds of objects.

INdicio provides you a built-in Audit trail independent of your content model. It tracks every change to every object, along with the user identity and time stamp.

About Galdos

Galdos Systems Inc. is a highly innovative Canadian software company that specializes in advanced information management technology with applications to enterprise information systems, next generation social media, and large scale mapping and navigation.