

# SOA, Semantics, & Data Science

Example Projects and Domain Solutions



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ORACLE


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# Topics Summary

- **Domains**
  - Domestic and International
- **Project Areas**
  - Round up of current work
- **Technology and Resources**
  - Tools, Links and Project Sites



- Visual tools
- Drag and drop mapping
- Code-free methods
- Open source
- NIEM XML, JSON, PDF, SQL
- BPMN

# Sample Domain Areas

## ➤ DoD Corp of Engineers

- COBie Smart Building initiative

## ➤ States

- Election Night Results reporting
- California Child Welfare Courts Application

## ➤ Municipal

- Pharmacy and Shelter facilities search

## ➤ Federal

- Education and PESC new NIEM domain
- State Department – Person lookup services
- CBP – TRADE export standards update



# International

## ➤ Canada

- NIEM adoption tools support – French / English

## ➤ Mexico

- NIEM adoption tools support - Spanish

## ➤ Europe

- JOINUP project participation
- GITB test bed
- Language localization – French, Spanish, Italian and Norwegian

## ➤ Japan

- METI project participation for Open Data and government
- Japanese language localization



# Project Specifics

## ➤ California Child Welfare PoC

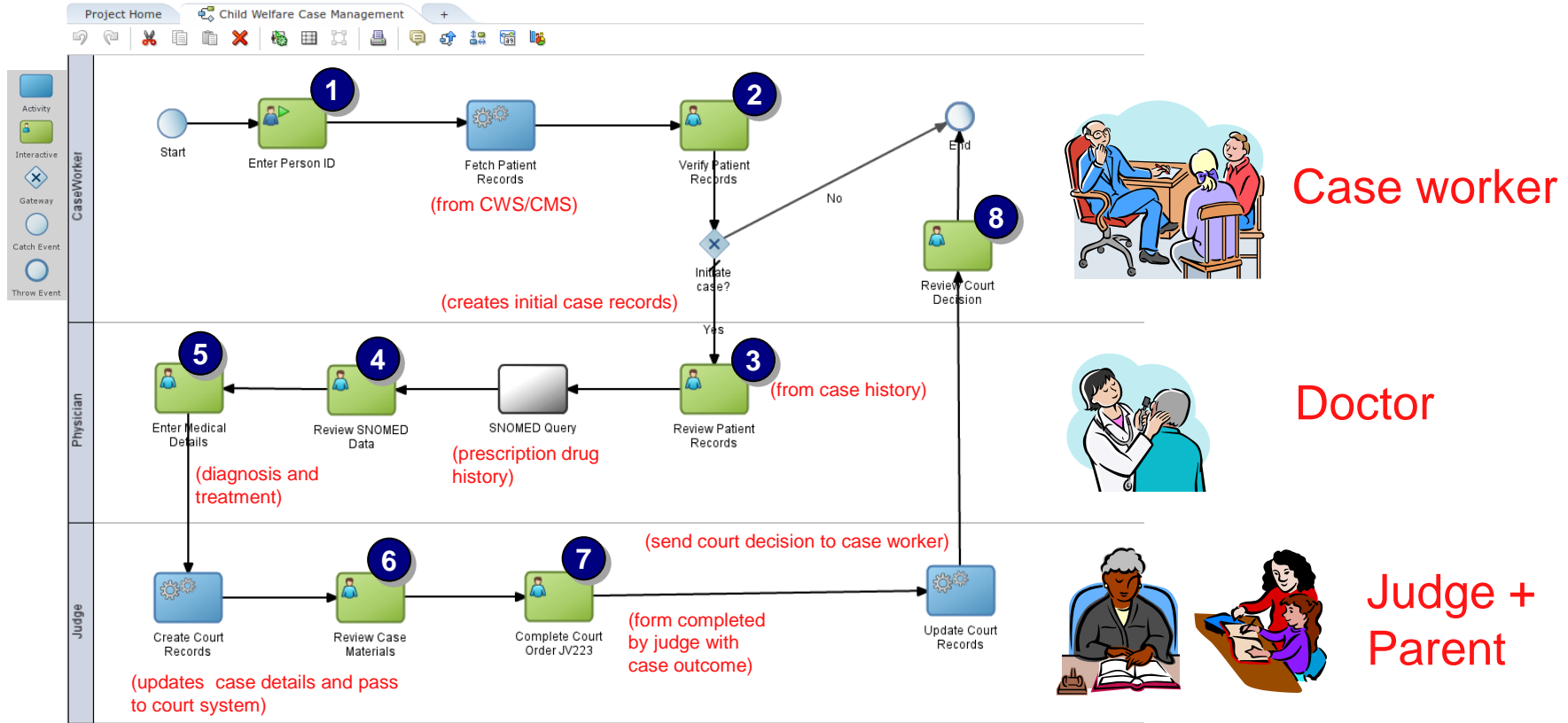
- SOA + Oracle BPM + Open-XDX web services
- Rapid development using the Oracle platform and tools
- XML and JSON services built from SQL stores
- NIEM Court Report exchange
- Fillable PDFs bridge from legacy process
- Open source resources

## ➤ Chicago Pharmacy search

- Open Data APIs from SQL database via JDBC / DNI
- Drag and Drop visual code-free methods
- Deploy to Java hosting service
- Open source solution stack

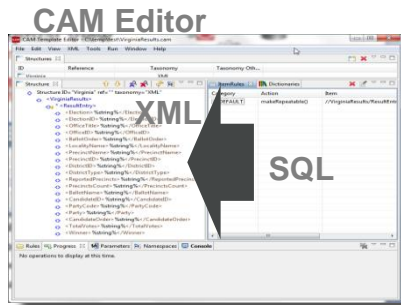


# Business Process Workflow Diagram (WYSIWYE)



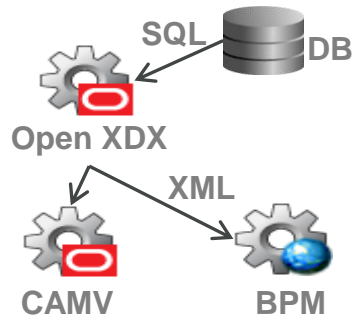
# Development / Deployment Conceptual View

## Design



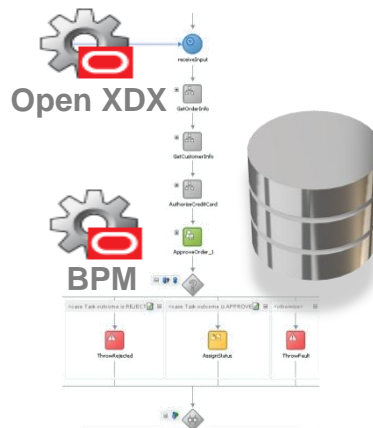
- Visual Editor
- SQL Browser
- Dictionaries
- Drag and Drop

## Test



- Generate Data
- Validate Data
- Share Data

## Deploy



- Open XDX
- Web Services
- Oracle BPM

## Delivery



- Device
- Browser
- Server



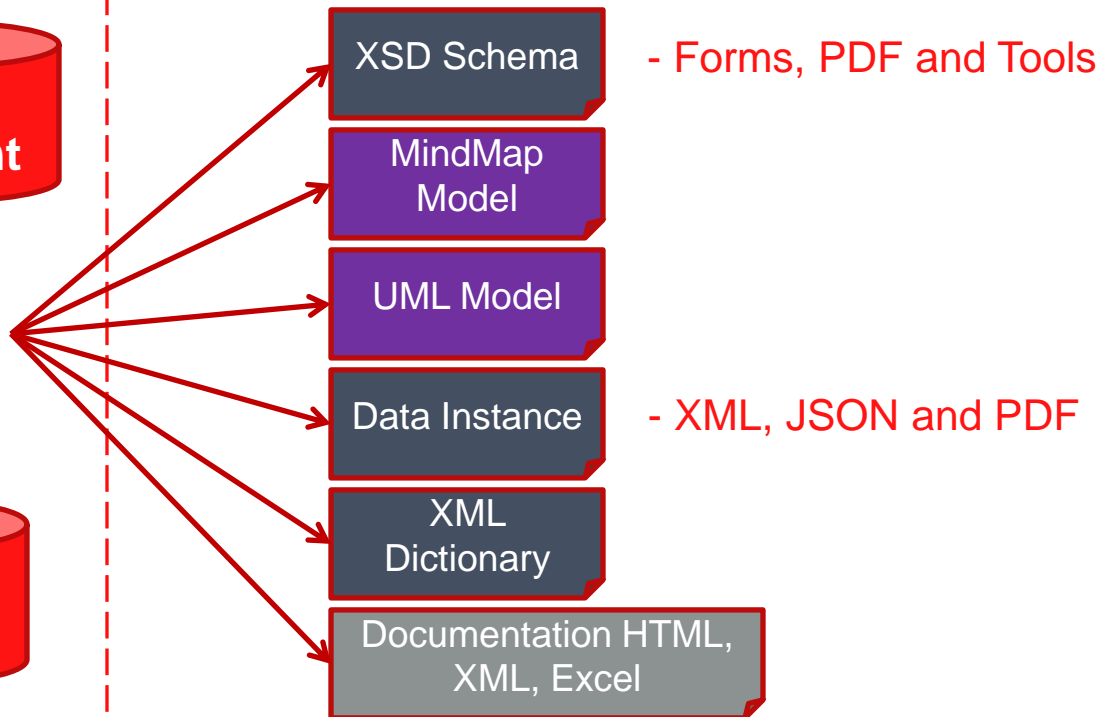
# CAM Editor Tools

## Visual Editing and Mapping



# SOA / NIEM solution artifacts

## Target Renderings



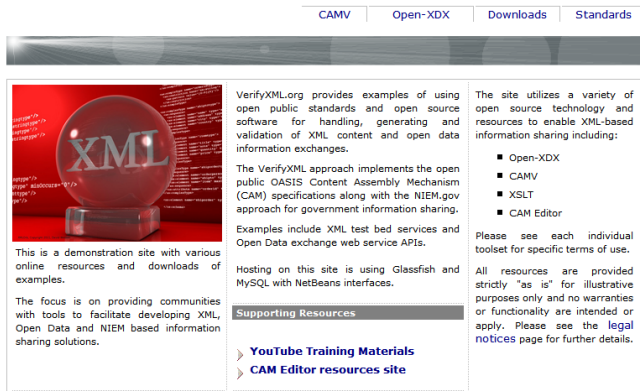
# Resources and Links

- Open-XDX and CAM editor software tools
  - <http://www.cameditor.org>
- Product Information on Oracle BPM Suite
  - <http://www.oracle.com/us/technologies/bpm/suite/overview/index.html>
- Java Developer Magazine article “BPM without Barriers”
  - <http://java.ulitzer.com/node/2269751>
- Forbes Article
  - <http://www.forbes.com/sites/oracle/2013/09/05/how-to-convert-data-silos-into-open-data-exchanges>

# Open-XDX Specific Resources

## VerifyXML

CAMV | Open-XDX | Downloads | Standards



VerifyXML.org provides examples of using open public standards and open source software for handling, generating and validation of XML content and open data information exchanges.

The VerifyXML approach implements the open public OASIS Content Assembly Mechanism (CAM) specifications along with the NIEM.gov approach for government information sharing.

Examples include XML test bed services and Open Data exchange web service APIs.

Hosting on this site is using Glassfish and MySQL with NetBeans interfaces.

**Supporting Resources**

- ▶ [YouTube Training Materials](#)
- ▶ [CAM Editor resources site](#)

The site utilizes a variety of open source technology and resources to enable XML-based information sharing including:

- Open-XDX
- CAMV
- XSLT
- CAM Editor

Please see each individual toolset for specific terms of use.

All resources are provided strictly "as is" for illustrative purposes only and no warranties or functionality are intended or apply. Please see the legal notices page for further details.

### VerifyXML Related NEWS

- 05/09 **White House announces Open Data policy - dawn of a new age of informat..**  
The White House today released an Executive Order -- Making Open and Machine Readabl.
- 04/26 **Analysis of JSON use cases compared to XML**  
Background Before there was either XML or JSON there was EDI. JSON is very reminisce..
- 03/27 **New CAM Editor v2.4 release with enhanced Collaboration tools**  
The focus for this release is improved collaboration support including better dictio..
- 03/02 **Migrate Excel text CSV / SQL Server CSV -> SQL TABLE CREATE / INSERT d..**  
Loading CSV text data into a MySQL database table is an art form. Obviously the text ..
- 01/12 **The non-UTF-8 encoding character invalid byte sequences error**  
An ongoing issue for XML transactions processing is UTF-8 character conformance. In ..
- 11/05 **XML Rules Engine and Validation Tutorial with NIEM**  
Our new XML Validation Framework tutorial video is now available. See how to easily..
- 10/25 **SQL to XML open data and NIEM training video posted**  
Learn how to build a working XML query/response system with SQL database accessing a..

[www.VerifyXML.org](http://www.VerifyXML.org)

### GitHub



### VerifyXML

Washington DC  
admin@verifyxml.org  
<http://www.verifyxml.org>  
Joined on May 13, 2013

4 public repos  
1 member

## SNAPSHOT OF PROJECT ACTIVITIES

Showcase site for  
integration exchanges using  
NIEM and Open Data

Global Test bed initiative for  
Information Exchange  
(GITB)

CAMV validation tools

# CAMeditor.org Project Site

← → ↺ 🏠 sourceforge.net/apps/mediawiki/camprocessor/index.php?title=Main\_Page

See What's Hot Suggested Sites Web Slice Gallery Photography Hospital Cycling XML related Census Fact Finder NIEM

page discussion view source history

## Main Page

**On this page:**

- Download
- Installing
- Sponsors
- CAM tutorials
- XML Validation Framework
- CAMV test suite
- Screenshots
- Uses of CAM
- Features
- Standards
- License
- Technical Details
- JAXB Bindings
- Starter Kits and Examples
- Language
- Deployment/Sharing
- Help Resources
- Project News
- Project Statistics
- Project Tracker
- Dictionaries
- Schema Documentation Tools
- Documentation
- History
- Authors and contributors
- Articles
- Other Resources

### CAM - Content Assembly Mechanism - toolkit

The CAM editor is the leading open source toolkit for building and deploying XML exchanges. The CAM editor can import, analyze and refactor existing exchange XML Schema public open standard. The CAM editor can import, analyze and refactor existing exchange XML Schema consistent with integration patterns. The full XML exchange structure, rules and documentation details are stored in the standard XML template format.

These OASIS CAM standard XML validation templates can include use of content models, code lists, lookups, and business logic expressed as XPath rules with warnings and error flagging that together provide a comprehensive XML exchange handling framework.

The CAM toolkit provides an intuitive approach using a WYSIWYG visual structure editor to dramatically simplify the process of developing and managing XML business information exchanges. This gives developers control over the process of developing and managing XML business information exchanges. The CAM toolkit also automates the analysis that are needed for consistent, interoperable and reliable exchanges. The CAM toolkit also automates the analysis that are needed for consistent, interoperable and reliable exchanges. The CAM toolkit also automates the analysis that are needed for consistent, interoperable and reliable exchanges.

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### Sponsors

**ORACLE**

Oracle is a proud sponsor of the CAM project and its application to the National Information Exchange Model (NIEM) along with XML information exchanges for public sector applications. A CAM Editor with NIEM capabilities is available. Also the JAX-WS Java Starter Kit for Oracle and NIEM is now available here. You can learn more about the Oracle NIEM web site. Also interesting news, reports and insights into CAM and XML from the XML.org website.

### Screenshots

Illustrative screenshots from CAM editor main menu interface

CAMed Screenshots

## SNAPSHOT OF PROJECT ACTIVITIES

165,000+ CAMeditor.org page visits to site

165+ countries have downloaded tools;

30% of visitors are from U.S.;

800+ downloads weekly

3,500+ student views of online video training resources

8 languages now available

[www.cameditor.org](http://www.cameditor.org)

[www.niemtrainingvideos.org](http://www.niemtrainingvideos.org)

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