# Apache POI - Case Studies

by Andrew C. Oliver, Cameron Riley

## 1. Introduction

A number of people are using POI for a variety of purposes. As with any new API or technology, the first question people generally ask is not "how can I" but rather "Who else is doing what I'm about to do?" This is understandable with the abysmal success rate in the software business. These case statements are meant to help create confidence and understanding.

## 2. Submitting a Case Study

We are actively seeking case studies for this page (after all it just started). Andrew C. Oliver (acoliver at apache dot org) has agreed to have a few T-Shirts printed with the POI logo (once its chosen) for the first few best submissions. To submit a case study, either submit a patch for this page or email it to the mailing list (with [PATCH] prefixed subject, please).

## 3. Case Studies

## 3.1. QuestionPro

QuestionPro is an online service allowing businesses and individuals to create, deploy and do in-depth analysis of Online Surveys. The technology is build on open-source frameworks like Struts, Velocity, POI, Lucene ... the List goes on. The application deployment is on a Linux Application Cluster farm with a Mysql database.

There are quite a few competitors delivering similar solutions using Microsoft Technologies like asp and .net. One of the distinct advantages our competitors had over us was the ability to generate Excel Spreadsheets, Access Databases (MDB) etc. on the fly using the Component Object Model (COM) - since their servers were running IIS and they had access to the COM registry and such.

QuestionPro's initial solution was to generate CSV files. This was easy however it was a cumbersome process for our clients to download the CSV files and then import them into Excel. Moreover, formatting information could not be preserved or captured using the CSV

format. This is where POI came to our rescue. With a POI based solution, we could generate a full report with multiple sheets and all the analytical reports. To keep the solution scalable, we had a dedicated cluster for generating out the reports.

The Apache-POI project has helped QuestionPro compete with the other players in the marketplace with proprietary technology. It leveled the playing field with respect to reporting and data analysis solutions. It helped in opening doors into closed solutions like Microsoft's CDF. Today about 100 excel reports are generated daily, each with about 10-30 sheets in them.

Vivek Bhaskaran

QuestionPro, Inc

POI In Action - http://www.questionpro.com/marketing/SurveyReport-289.xls

## 3.2. Sunshine Systems

Sunshine Systems deveveloped a POI based reporting solution for a price optimization software package which is used by major retail chains.

The solution allowed the retailer's merchandise planners and managers to request a markdown decision support reports and price change reports using a standard browser The users could specify report type, report options, as well as company, division, and department filter criteria. Report generation took place in the multi-threaded application server and was capable of supporting many simultaneous report requests.

The reporting application collected business information from the price optimization application's Oracle database. The data was aggregated and summarized based upon the specific report type and filter criteria requested by the user. The final report was rendered as a Microsoft Excel spreadsheet using the POI HSSF API and was stored on the report database server for that specific user as a BLOB. Reports could be seamlessly and easily viewed using the same browser.

The retailers liked the solution because they had instantaneous access to critical business data through an extremely easy to use browser interface. They did not need to train the broader user community on all the complexities of the optimization application. Furthermore, the reports were generated in an Excel spreadsheet format, which everyone was familiar with and which also allowed further data analysis using standard Excel features.

Rob Stevenson (rstevenson at sunshinesys dot com)

## 3.3. Bank of Lithuania

The Bank of Lithuania reports financial statistical data to Excel format using the Apache POI project's HSSF API. The system is based on Oracle JServer and utilizes a Java stored procedure that outputs to XLS format using the HSSF API. - Arian Lashkov (alaskov at lbank.lt)

## 3.4. Edwards And Kelcey Technology

Edwards and Kelcey Technology (http://www.ekcorp.com/) developed a Facility Managament and Maintenance System for the Telecommunications industry based on Turbine and Velocity. Originally the invoicing was done with a simple CSV sheet which was then marked up by accounts and customized for each client. As growth has been consistent with the application, the requirement for invoices that need not be touched by hand increased. POI provided the solution to this issue, integrating easily and transparently into the system. POI HSSF was used to create the invoices directly from the server in Excel 97 format and now services over 150 unique invoices per month.

Cameron Riley (crileyNO@ SPAMekmail.com)

## 3.5. ClickFind

ClickFind Inc. used the POI projects HSSF API to provide their medical research clients with an Excel export from their electronic data collection web service Data Collector 3.0. The POI team's assistance allowed ClickFind to give their clients a data format that requires less technical expertise than the XML format used by the Data Collector application. This was important to ClickFind as many of their current and potential clients are already using Excel in their day-to-day operations and in established procedures for handling their generated clinical data. - Jared Walker (jared.walker at clickfind.com)

## 3.6. IKAN Software NV

In addition to Change Management and Database Modelling, IKAN Software NV (http://www.ikan.be/) develops and supports its own ETL (Extract/Transform/Load) tools.

IKAN's latest product is this domain is called ETL4ALL (http://www.ikan.be/etl4all/). ETL4ALL is an open source tool allowing data transfer from and to virtually any data source. Users can combine and examine data stored in relational databases, XML databases, PDF files, EDI, CSV files, etc.

It is obvious that Microsoft Excel files are also supported. POI has been used to successfully implement this support in ETL4ALL.