

Office for National Statistics Case Study

PROVIDING OFFICE FOR NATIONAL STATISTICS BENEFITS FROM MODERNISATION PROGRAMME

Amadeus delivers flexible SAS and Integration skills to facilitate Business Transformation

The Challenge

- To create a SAS environment to support the UK Government's Statistical Modernisation Programme.
- To develop a secure, robust infrastructure, giving browser access to rapid statistical analyses of very large volumes of data.
- To enable improved statistical quality and response times whilst cutting costs.
- To develop in-house capabilities in SAS software.

The Solution

- Amadeus provides flexible consultancy services to develop series of statistical application environments.
- Full integration developed between Oracle Data Warehouse and Java-based browsers.
- Close working partnership between ONS and Amadeus to transfer SAS9® skills to ONS staff.

The Results

- Secure, direct, browser-based access to statistical information for end users.
- Rapid access to statistical analyses and reports.
- Consistent format of data improves output quality.
- Automation of statistical production reduces costs.

ABOUT AMADEUS – The SAS Specialists Amadeus Software Limited, formed in 1989, provides Business Intelligence Solutions. We are a SAS9 Preferred Implementation Partner for delivery of SAS projects across all industries. We have earned our outstanding reputation by providing first-class solutions, unrivalled technical support and clear, practical training. We achieve this by remaining at the forefront of Business Intelligence technology and providing solutions that meet customer objectives. Our Project Management is structured to provide pragmatic quality assurance ensuring successful delivery.

Maximising the return on
your SAS® investment



OBJECTIVES

The objectives of the programme are to enhance the quality of statistical output, improve access and drive faster response to parliament, government departments and the wider public, all whilst reducing the cost of producing statistical information.

ONS is the Government Department responsible for producing a vast range of economic and social data, extending from the monthly Retail Prices Index to the ten-yearly UK census. ONS is the largest generator of public statistical information in the UK. The Department came into being after a merger of several separate Government departments, including the Central Statistical Office, The Office of Population Censuses and Surveys and parts of the Department of Employment. Each of these departments had its own systems, its own processes and its own formats for generating statistical output. In such a confused and unstructured environment, compilation of statistics frequently required extensive manual intervention, which was both time-consuming and costly.

The Statistical Modernisation Programme set out to bring these disparate operations together, establishing common tools, common processes and common practices that would automate the generation of reports, increase the quality of statistical data and streamline access. ONS selected Oracle as the main database, a Java-based front-end, and SAS as the main statistical engine.

“Although we have SAS skills in-house, we were not using the latest version of the software and took this opportunity to upgrade,” said Sue Todd, Systems Support Manager at the ONS. ***“SAS9 is a step change from earlier products, and we wanted to use it in a very different manner, opening access to non-technical users. We needed expert guidance and went through a competitive tendering exercise before selecting Amadeus as the company with the best SAS expertise and the most co-operative approach to helping us with this aspect of our major transformation programme.”***

OPENING ACCESS

Current systems focus on the generation of regular reports and publications created by the Department's statisticians. Where specific questions are asked by Parliament or requests for particular analyses made by other parties, these are scheduled into the Department's workload and generated by a core group of statisticians. Reports can take weeks or months to produce depending on the prevailing workload.

The Statistical Modernisation Programme will, in the longer term, transform this process by providing a direct and immediate service for business users across the Department. Users will have browser access to a menu of statistical information, and be able to use stored procedures to generate selected analyses and reports within a fraction of the time taken when tasks had to be allocated to the small pool of busy ONS statisticians who have SAS expertise.

Most users will not be expected to know the statistical program they are using, nor be exposed to the program elements of SAS. An intuitive browser will guide them through the statistical information available and they will be able to trigger prepared procedures to complete a range of analyses and generate reports from a menu.

To facilitate this, ONS needed to create a number of statistical applications which would seamlessly extract data from the Oracle Data Warehouse, complete the statistical analyses, and present results in a secure, robust and useable format within the front-end browser. Amadeus, working with the ONS team, designed and set up the SAS environments necessary to support these applications.

KEY CHALLENGES

ONS faced two key challenges in creating this new way of working. Firstly, it needed to equip its core team of administrators with a thorough knowledge of SAS9. Secondly, it needed to create the central statistical environments and build interfaces between the SAS statistical engine, the Oracle database and Java routines within the browser. Amadeus is an accredited SAS partner and has provided support over several years to ONS on earlier versions of SAS software. The company was chosen in a competitive tender to support ONS's Statistical Modernisation Programme and the migration to SAS9. ***"Apart from its in-depth experience with SAS software, Amadeus has a good understanding of how it can interface with Oracle and Java which was particularly helpful in creating the integrated solution we needed,"*** Todd added. ***"We particularly like the way Amadeus provides a multi-disciplinary range of expertise for the equivalent of a single consultant. Amadeus brings expertise in SAS, allied with knowledge of Oracle, Java, Data Warehousing, IT infrastructure and other skills as required and we have the support of a team within Amadeus all of whom really Understand our business and what we are trying to achieve with our Modernisation Programme."***

INFORMATION ARCHITECTURE

Amadeus consultants configured, built and documented a number of separate SAS environments for ONS, establishing an architecture to support the creation, maintenance and control of metadata. Built within SAS9, these environments control the way in which ONS staff develop statistical processes and applications. They also support applications through the complete lifecycle of development, integration, system test, customer acceptance and production.

Rather than users needing to manipulate raw data within the Oracle Data Warehouse, the SAS environments set up by Amadeus will allow users to call data at a higher level. Access privileges in the system control what each user is able to do, the reports that can be run and the data that can be viewed. A full audit trail of activity is tracked through the application environments created by Amadeus. Accessing data and producing statistics in this way has many benefits. It ensures consistency of output and enforces best practice in the development, testing and production of reports, regardless of the platforms being used, the individual user or the sources of data. ONS handles very large volumes of constantly changing data, and is devolving access to large numbers of users wanting to examine data in many different ways. In such circumstances, it was essential to establish a robust, secure and well-structured architecture.

SKILLS TRANSFER

Amadeus handled the development and implementation phases and provided full training and documentation to the core group of SAS administrators within ONS. A key benefit during these phases was the close working relationship that developed with ONS staff. There is no more effective way to get to grips with new software than to work alongside experts prepared to transfer knowledge during a real-life development project "Coaching, mentoring and skills transfer have been a valuable result of our relationship with Amadeus," said Todd. "We could not have progressed so far nor so quickly using SAS9 without this practical, on-the-job guidance and advise."