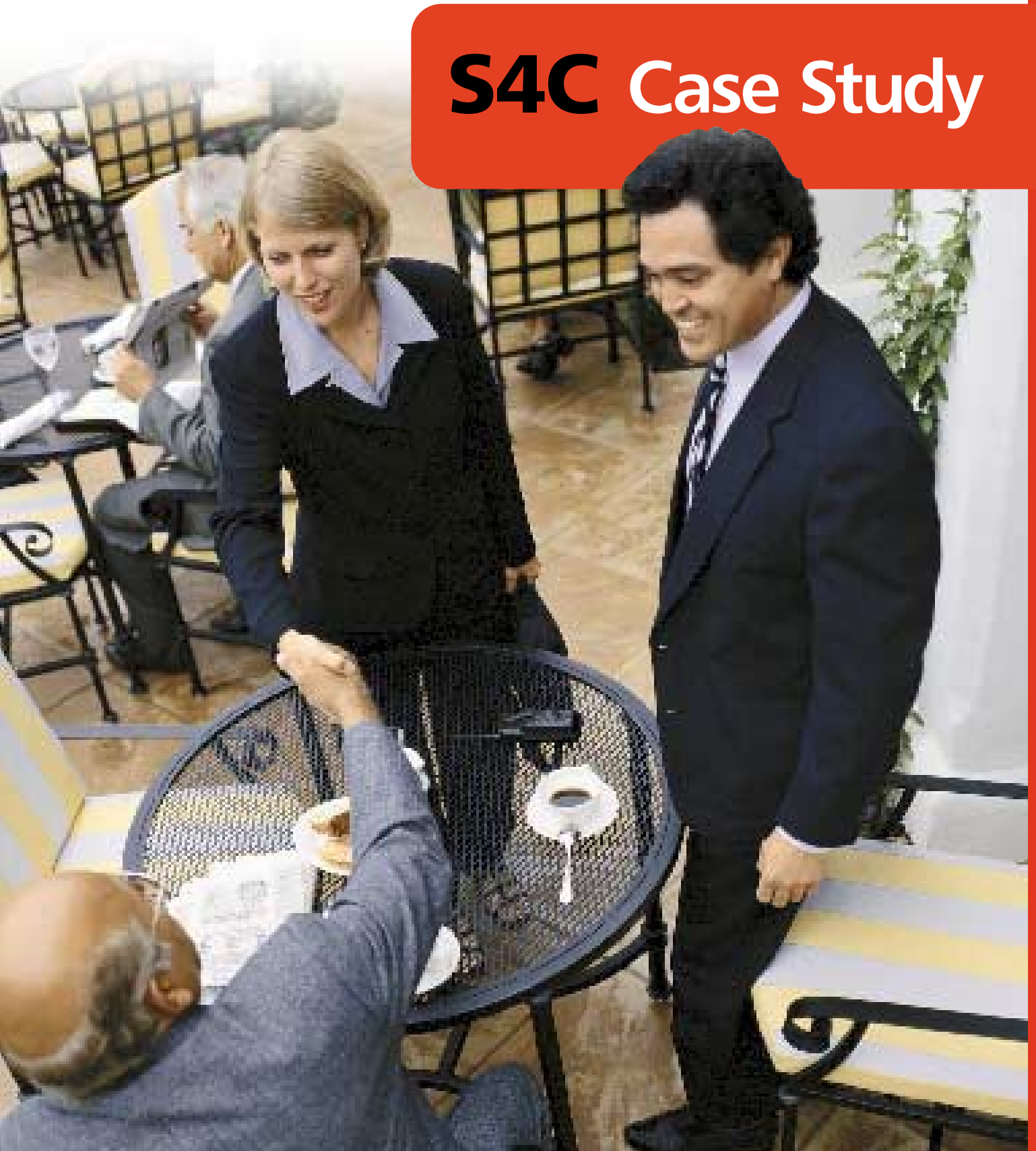


S4C

dunstanthomas
developing e-business



S4C Case Study





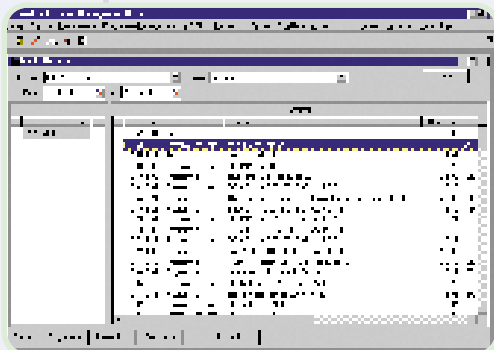
Overview

S4C has installed a Broadcast Station Management, (BSM) System that offers a complete broadcasting solution. S4C needed a software solution provider that could understand both the complexity of the BSM system and the broadcasting environment in order to tailor the system to S4C's present and future requirements. They chose Dunstan Thomas for its technological expertise, insistence on Best Practices in software development and for their established name and reputation within the marketplace. The BSM system is at the heart of S4C, tracking programmes from inception to transmission, to storage. Around 90% of staff employed at S4C uses the system, meaning that it is critical to the organisation's smooth running. Furthermore, another six external organisations have access to BSM, including GMG (Granada Media Group), TNSofres TV Research and PRS (Performing Rights Society). Since Dunstan Thomas began work for S4C, BSM has grown from running one channel to running three, including S4C Analogue, S4C Digital and S4C2, with the digital channels transmitted on both terrestrial and satellite platforms.

Client Comment

"I need a tap of resources that I can turn on and off when I need them. Dunstan Thomas provides an expert and flexible service tailor-made to my requirements".

Wendy Xerri, IT Manager



Benefits

The main benefits that S4C has gained from its relationship with Dunstan Thomas are as follows:

- ▶ S4C has access to the expertise and knowledge base necessary to develop the system as they want.
- ▶ The system has become more secure and robust and structures and documentation, implemented by Dunstan Thomas, have reduced risk in operating the system.
- ▶ Dunstan Thomas' use of Best Practices in order to plan and implement changes to the system has ensured high programming standards, efficient project management and forward planning.
- ▶ S4C has benefited from Dunstan Thomas' receptiveness to the end-user's needs meaning that customisations made by Dunstan Thomas to the BSM system have enhanced its functionality in mission critical areas.

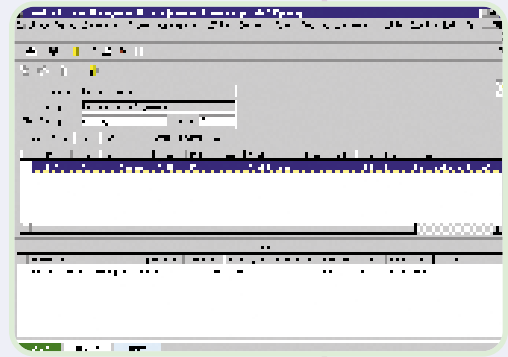
Company Backgrounds

S4C stands for Sianel Pedwar Cymru (Channel Four Wales) and it is committed to contributing to the linguistic, cultural, social, economic and public life of Wales. Since 1982, all Welsh language TV programmes, from whatever source, have been transmitted on S4C to create one comprehensive Welsh medium service. Prior to S4C's establishment, the limited number of Welsh programmes produced were scattered throughout BBC1 and ITV schedules.

Over the years, S4C has developed a distinctive role in the provision of public service broadcasting to a bilingual community. More recently, new technology, such as the advent of digital television in 1998, has enabled S4C to extend that role by establishing a diversity of services.

S4C is a commissioning broadcaster, rather than a programme producer, creating jobs and boosting the local economy throughout Wales. All the services on offer are transmitted from S4C's Headquarters in Llanishen, Cardiff.

Dunstan Thomas is a leading e-solutions consulting, development and training organisation that provides e-business solutions and services, utilising the latest in cutting edge technologies and recognised "Best Practices." Established in 1986, the company helps its clients transition their businesses to harness the power of knowledge management, business intelligence, CRM, business operations, e-commerce and related enterprise and wireless technologies.



The Situation

When Dunstan Thomas first started work at S4C the stability of both the system and the underlying source code needed to be addressed to complete the initial phase of the original installation and a stable build needed to be created before any new functionality could be added and bug fixing undertaken. The BSM system installed at S4C covered the following areas:

- ▶ **Programme and Contract Library** – These Libraries enable the entry and maintenance of full contract, programme, version, and dub details. This module caters for all types of programming, whether Acquired, Commissioned, Co-Produced or Home-Produced.
- ▶ **Materials Management** – Expected arrivals can be created to pre-warn Despatch that material is due to be delivered. By this being done as early as possible, work required on material, such as dubbing or editing, can be planned and jobs created in advance. Expected arrivals can be automatically created as contractual information is being entered.
- ▶ **Budgeting** – The Budget Schedule is a valuable tool in assisting planners/commissioners to create long-term schedules for the purposes of budgeting.
- ▶ **Task Management** – User-configurable job templates and wizards permit the quick creation of many types of VT jobs potentially initiated by the entry of contract information or request of material.
- ▶ **Programme Planning** – The Planning Schedule enables programmes, and associated versions and dubs, to be scheduled in a realistic graphical format.
- ▶ **Promotions** – Promotion levels determine the extent to which a programme should be promoted. When programmes are scheduled, a campaign is created based on the promotion level of the event. The campaign then creates a job (see Task Management) to create the necessary trailers.
- ▶ **Transmission Schedules** – When a programme is scheduled, the break pattern is automatically determined using the service it is scheduled on, the programme type and the time of transmission. This information is used to produce the first cut of the Transmission Schedule.

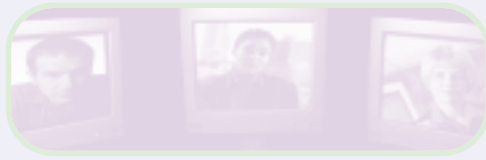
The Solution

Dunstan Thomas brought to S4C its vast knowledge of both software management and development experience in client/server architectures. Since Dunstan Thomas has been working with S4C new features have been added to the BSM system. This is in addition to bug fixing and amendments to the core system. In particular Dunstan Thomas has added the following facilities to the BSM system:

- ▶ **Commissioning and Artist Repeat Payments** – When independent producers are asked to submit ideas for a particular slot, they are given a diskette containing a subsystem for them to enter all the details of their proposal. The diskette is sent back to the broadcaster and automatically loaded. A list is maintained, allowing each submission to be either rejected, tentatively agreed, or committed. A submission can be dragged onto the budget schedule, providing an easy method of creating 'What If' scenarios.
- ▶ When a commitment is made, a contract is automatically generated from the known details. Additional details can then be added.
- ▶ When commissioned programmes are repeated, the payment of artists is managed including the automatic calculation of amounts to be paid and invoiced. Invoices and accompanying letters are automatically generated.

Key Features

- ▶ Easy method to ensure relevant/accurate information is received from producers
- ▶ Search facility to interrogate submissions for ideas
- ▶ Integrated with the Budget Schedule
- ▶ Creation of 'What If' scenarios
- ▶ Integrated with the Programme Library
- ▶ Tracking of commitments/tentative agreements via the Budget Schedule
- ▶ Automation of Artist Repeat Payments
- ▶ **Music Returns** – This facility allows S4C to generate reports detailing the recipients of royalty payments for music used in any programme. It also generates a file automatically which is sent to MCPS outlining royalty beneficiaries.



The Future

The future for the BSM system is centred on the scalability built into it today. External suppliers will have access to the BSM system over an Extranet to track the development life cycle of their programmes. Programme suppliers will be able to supply programme synopses over the Extranet and have them imported directly into the BSM system. S4C also hopes to create external access to its library of more than 100,000 tapes for people searching for cuttings or conducting other research.

Technology and Development

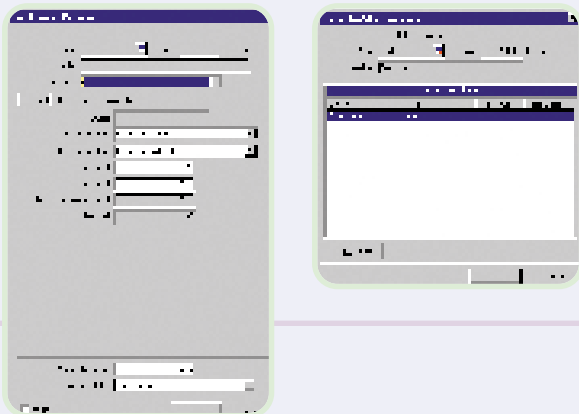
The current BSM system uses the following technologies:

The database is Oracle (version 8.1.7 also know as Oracle 8i) and utilises a number of features inherent to this type of database. These include the use of packages to encapsulate both functions and stored procedures into a single object.

All database side development is done using PL/SQL developer. Oracle designer 2000 is used to reverse engineer the database.

The client side of the system is a single monolithic executable, 16 megabytes in size. This encapsulates all of the business logic together with the input screens used to manipulate the data. It is based on a pure Object-Oriented architecture with very large scale interconnectivity.

All client side development is done using Borland Delphi 5 together with various third party components (InfoPower, Internet Main Suit etc).



Dunstan Thomas Holdings Ltd

Portsmouth

Enterprise House
Isambard Brunel Road
Portsmouth, PO1 2RX
T +44 (0) 23 9282 2254
F +44 (0) 23 9282 3999

London

232 Shoreditch High Street
London, E1 6PJ
T +44 (0) 20 7422 0720
F +44 (0) 20 7655 0912

info@dthomas.co.uk
www.dthomas.co.uk