

# Rebuild at Meridian

Huge challenges faced the ITV broadcaster: how to move site, renew technology, identify property needs and review news production. By **Paul Stevenson**, Controller of News Systems and Projects, ITV News Group

The old federal ITV was a coalition of independent regional broadcasters, often with their own network production and transmission operations. Now, with the formation of a single, unified ITV, more of these activities are becoming centralised.

This has meant a big change for ITV's regional operations, with some of the large regional broadcast centres now inappropriate for serving ITV's regional requirements – namely the production of primarily news as well as other regional-specific content for transmission in the local franchise.

This was Meridian's situation in early 2003 when we began to plan for a major site move. Meridian is ITV's South-coast service provider, with a reach extending from Dorset to Kent. Our main centre was based in Southampton, in an old and very large site, which had been the local home of ITV since the late 1950s. The site was by then orders of magnitude too big, and the infrastructure, layout and technology (Beta SP tape-based) totally unsuited for a modern news production centre. We also operated a significant production centre in Maidstone, Kent (20,000sqft).

Meridian had obligations that further complicated our planning. ITV regions 'opt out' from the ITV national service at fixed points during the daily schedule to transmit live, locally-produced news bulletins. No two franchises in ITV serve their regions in exactly the same way; most further subdivide their regions (based on terrestrial transmitter patterns) for more localised content. Often, this means that within the body of the 18:00 flagship show, there are one or more local opt outs, where a sub region will have its own short slot of local content.



Main premises at Whiteley: "We made the decision to use conventional office space on a business park"

Meridian's requirements are more complicated still, with three totally independent news services – ie, all bulletins being produced in triplicate, serving East, West and South within our region. These service commitments are a requirement of Meridian's license to broadcast. This meant we had two production studios in Southampton (South and West) with their own facilities, plus a self-contained news operation with studio at Maidstone.

There was a clear business case to move site and renew our technology, but also to critically review the way we make our news – and re-consider what our property needs would be. That defined our objectives as follows:

- Identify the space and service requirements for a replacement for the Southampton site that was 'fit for purpose' and find that site.
- Re-define the 'workflow' for modern news production, and select the appropriate technology partner. In the process, review the way news content is provided for our 'East' region,

and re-define the Maidstone operation and find a new Maidstone site.

The active search for property started in the middle of 2003, and in parallel to that, the efforts to define our new workflow intensified. At the same time I produced the detailed tender document to enable us to choose our newsroom technology provider.

The requirements of the workflow were simple:

- Empower journalists with widespread desktop editing and graphics tools, with common access to shared storage.
- Minimise any dependency on technical facilities for any ingest of material or other services. Eradicate all tape handling apart from source material (rushes) and legacy archive.
- Give journalists the power to ingest their material at the desktop, edit, and file finished stories to the on-air server.
- Retain craft editing and graphics facilities and staff specifically for high-end content production.

## FORMATS AND FACILITIES

We chose DVCAM as our new acquisition standard – primarily because we benefited from its widespread adoption and cost-effectiveness. Because we wanted widely available ingest, the availability of low-cost and suitable VTs (DSR 45) in the chosen format was a strong consideration, as was the ability to seamlessly mix our regular footage with other DV material.

The biggest challenge to us was how to centralise our production facilities in the new site. We wanted to retain a regional newsroom presence in Maidstone, but present the programme from one (of three) studios at our new site, over 100 miles away. In effect, we wanted to separate the studio from the acquisition and editing, creating a centralised studio operation.

That meant providing a seamless, journalist-controlled method of filing edited content from Maidstone to our main site for transmission. To achieve this, we wanted to use file transfer, filing

DV25 edited content from one site to another via a fast data circuit. The alternative would have been a traditional manual tape handling, transfer and logging process.

So, our tender requirements were essentially:

- A common access DV25 4:2:0 based media storage system with full bandwidth access to all editing stations (including desktops).
- Sufficient capacity at our new main site to handle 30 simultaneous edit sessions plus handle three live studios, each with three live video streams.
- Simple to implement (FireWire) ubiquitous edit station based ingest.
- Common editing interface across desktops and craft suites.
- Robust and simple automated playout mechanism with live on-air automation (via iNews, the newsroom scripting system).
- Effective and widely accessible tools to manage the content on the shared storage ('content management').
- Mechanism to file transfer DV25 content from major bureaux (eg, Maidstone).
- Seamless integration with the iNews scripting system to allow common asset tracking, naming conventions and automation.
- A fully scalable and adaptable solution to meet the need of all ITV franchises.

We wanted a fully-developed, commercially established solution that was off the shelf and shipping, able to meet our on-air deadlines and not require development effort.

An additional refinement we required was the ability to automate file transfer from small regional news bureaux via low bit rate data circuits. Meridian had operated a video journalist on the Isle of Wight, who for some time had edited DVCAM-originated footage on a PC, then MPEG-compressed it and file transferred the finished packages to Southampton over a domestic broadband circuit.

The compression process enabled the use of these low-cost circuits. This store-and-forward technique had opened up a whole new way of working for us, and we wanted to exploit this further and equip more premises with this capability. Bidders for the tender were invited to come up with a proposal for this, and offer a field editing and transfer package with an automated file receiving mechanism that would make MPEG-delivered material available on the DV25 architecture for viewing and transmitting.

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## PLANNING THE NEWS

The Newsroom System tender process kicked off in late 2003. ITV oversaw the very comprehensive procurement process (involving 10 potential suppliers). The final decision to purchase Avid as ITV's preferred solution was announced at IBC 2004.

Avid partnered with Telestream, whose MapOne and Flip Factory products provide a solution for the low bit rate bureaux contribution requirement. Avid supplied NewsCutter XP for our desktop editing with NewsCutter Adrenaline for the craft suites, all accessing Unity shared storage at the main site. ControlAir serves as the studio automation, translating iNews running orders into AirSpeed (video playout server) and graphics play lists. In our major bureaux, they supplied LANShares with local shared-access editing and workgroup-to-workgroup file transfer capability. Avid's existing toolset delivers the media management and file transfer functions.

Early in 2004, we selected our new main premises at Whiteley, some 10 miles from the old Meridian site. We made the decision to use conventional office space on a business park — and within one floor of 18,000sqft we have comfortably accommodated three news studios, five edit suites, graphics, library and a large three-service newsroom. Contrast that with the seven acres of the old site. Using regular office space does present some problems, such as accommodating the studio air conditioning and, critically, height for lighting. We chose cold lighting to contain the heat and electrical load, and installed a fixed scaffold rig to give maximum height for the lights.

We found 3,500sqft of suitable space for the new Maidstone operation — letting space for 'The Maidstone Studios' in Kent, and proceeded to fit that out. In there we fitted six desktop NewsCutter and two Adrenaline-powered suites on a LANShare and built a newsroom with the usual amenities. This facility was up and running in October.

We set our timetable — finish construction and technical fit out and commissioning of Whiteley by the beginning of November 2004 for an on-air date of 4 December. November was to serve as our dry-run period, where production staff could turn a project into a working TV station, learn to use the studios and Avid system, and iron out all the bugs.

## SYSTEMS CHOICE

Another tender process kicked off in early 2004 to choose our systems integrator to do the technical fit out. This was tightly contested, and TSL was successful. The timetable was tight for all our suppliers, and the ability to deliver in that timeframe was a key consideration.

We decided to use Multi protocol Label Switching (MPLS) technology for our high bit rate data circuit connectivity from our major bureaux. This technology, supplied by BT, will ultimately serve ITV as a whole, but we brought forward its rollout for delivery at Meridian. This technology provides approximately 45Mb bi-directional IP connectivity to our major bureaux, of which some 20Mb remains for DV25 file transfer. The rest is taken up with normal IP traffic and an MPEG-driven vision circuit (consuming some 8Mb) which we use for live camera feeds.

This was pretty pioneering stuff, as this combination of MPLS and Avid workgroup to workgroup transfer was previously untested. BT and Avid ran laboratory-based tests in Summer 2004 ahead of rollout to confirm its viability.

I directed a small local team to oversee the project rollout. Critical to its success was its composition: as well as technical staff working closely with the technical suppliers, there were senior editorial production staff, who were responsible for managing their teams at the current and future operation. A key part of our planning and preparation was fixing the training schedule and producing the workflow specification.

Defining a new workflow in general terms is a very different matter from specifying the detail users need to be able to edit, handle and transfer material, and operate regimes that work across iNews and the Avid production system. A lot of work and planning went into this, with the editorial team working closely with Avid to produce a 'users handbook' detailing the practices and conventions for all users of the system. This workflow document is now being adopted across our other operations.

The editing training programme started mid-Summer, with a dedicated training set-up established at Meridian comprising a LAN share with 12 attached desktop NewsCutter, replicating the newsroom editing experience at Whiteley. All desktop editing users received a week's formal training on this system. This



Newsroom system, running iNews scripting and NewsCutter XP for journalist desktop editing

was critical to our success — quickly confidence in the system was established and a momentum gathered behind.

TSL and Avid started the pre-build in April, and the builders started their work in May. The technical fit-out on site started in August. By November it was largely job done.

The planning for November was also a logistical challenge — keeping the old operation running whilst cycling all staff through the new studios to establish operational practices and train them to use the new systems. We knew this would be a tough month, and it was, but the planning for it allowed us to make maximum use of the opportunity, and this paid off. This was also a month of furious bug-fixing, but we expected that.

The timetable worked, as Meridian transferred its operation to Whiteley on 4 December. That day was a Saturday, so we could 'soft launch' with short bulletins. The champagne came out for our 18:00 flagship shows two days later; three programmes being transmitted simultaneously from three identical adjacent studios generated some atmosphere!

The Meridian project has represented not just a huge change for Meridian and its staff, but for ITV as a whole. Having successfully established the new Meridian operation on-air, the model is being rolled out rapidly across ITV. We are carrying forward a common design, practices and key supplier choice for all our regional operations.



News studio: "Using regular office space does present problems, including studio air conditioning and height for lighting"

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