

Taking the digital route: YLE News post production

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YLE24

Over the past five years or so, the Finnish public broadcaster YLE has progressively been advancing along the route to full digitalization of its news post production operations. This article describes the stages covered thus far, the problems encountered along the way – and includes the observations of a YLE journalist who has closely monitored the progress.

At the same time when post production was beginning to be digitalized at YLE in Finland, we were also starting the process of migrating to digital TV broadcasting (DVB), and launching a 24-hour news channel (YLE24). With these additional news broadcasts, we would need to increase our production capabilities. For the hourly news broadcasts, a completely new working method was required, using a smaller team where people would be trained in newsgathering, editing, graphics and transmission. These new personnel would be called **media journalists**. It was obvious that a non-linear editing approach would be the most practical, but there was no template for us to follow so we needed to explore a variety of possibilities.

Having had experience with other Avid editing products¹, the editing platform we chose was NewsCutter Effects (NC FX). Over a period of about six months, we acquired six new editing suites: three of these were placed in the vicinity of the new YLE24 newsroom and the other three were built to supplement the increased production in the daily news production area (POT EDIT).

At the same time, we were also constructing a new media hall (MHALLI) that would act as a central location for material ingest and transmission. For this purpose, we chose OmniBus solutions, with router control and Columbus automation. Additionally, two Avid (previously Pluto) AirSpace servers were installed for material ingest (SILO) and transmission (MYLLY).

We use two studios for our news broadcasts. Studio 24 is used for the Finnish-language news. Here, we have two broadcasting desks: a small one-person work point with semi-automation for the hourly news bulletins, and a larger fully-manned studio desk for our main news broadcasts. Our other news studio, Studio 5, is where we produce our Swedish-language news (TVNYTT) and our two current affairs programmes (ASTUDIO and OBS).

Over the past three years, we have continued to expand our digital production in the YLE news and current affairs department. In autumn 2001, we installed additional AirSpace, MediaBrowse and Unity for News systems (all from Avid). Since then, we have increased our editing capacity to include 13 Avid NewsCutter FX systems and slowly moved the majority of our broadcasts to server-based transmission using both OmniBus Columbus and Avid iNews ControlAir. The process is still ongoing and we cannot really predict what the future will bring – other than change!

1. The first software that we went into production with was Avid NewsCutter 1.5 on Windows NT4.

Early stages of post production digitalization

Stage one: stand-alone environment

After training a small number of users, we put three stand-alone Avid NewsCutters into service, installed in the POT EDIT area. They would be used for all types of editing work to allow us to get a feel for what types of production they would best be suited for and what, if anything, they might not be suitable for. Users were required to digitize tape-stored material to a local 36 GB hard drive, giving approximately three hours of storage capacity for 25 Mbit/s 4:1:1 DV-formatted material (DV25 411). The NewsCutter suites were equipped to be able to handle all the basic production requirements, including audio, graphics etc.

Shortly afterwards, three additional NewsCutters were installed in the vicinity of the YLE24 newsroom. One NewsCutter was even installed in the middle of the open workspace architecture where the journalists were situated: the other two were installed in more traditional editing suites.

In the POT EDIT area, the main goal in the early stages was to move from linear tape-editing production to a non-linear editing system. For the journalists and editors, the biggest differences would be the changing of their everyday tools, and how their time should be used in preparing for, and during, the editing process.

Early problems arose from two issues – the way in which material was to be digitized, and the order in which work could and should be done. This simply meant that time was consumed in a different manner. The time used would need to be as productive as when the editors and journalists were working in a linear environment.

Moving away from traditional audio booths to a local headset microphone proved to be an additional problem; what originally seemed like a small change took quite a long time for everyone to adjust to.

Meanwhile in the YLE24 newsroom, the new production systems were put into use and so began the development of a “media journalist” working method and environment. The main idea was that everyone would be working in the same area and in close proximity to one another, from the shift news editor to the presenters, the text journalists and the media journalists. Media journalists were trained to be able to do multiple tasks, the main ones being material acquisition, direction, editing, graphics, titles and transmission. A normal work shift consisted of one director, one graphics person and two editors. Along with the text journalists and the shift news editor, they were to produce a five-minute live news bulletin every hour.

Using the NewsCutters, the POT EDIT area had to aim for approximately the same level of work speed as when using the already established tape-to-tape edits.

The importance of trying to get everyone on to the same wavelength and to accept the need for change were essential if we were ever to succeed. This proved to be quite a challenge: at times there was resistance from the editors and users alike. Bad word of mouth caused some set-backs but, after a few good experiences, we were off to a start. Adjusting to the new work methods did cause some slowness at the start but the NewsCutters were soon brought up to the required speed to manage the demands of the production schedule.

Even though the NewsCutters allowed for the possibility of digitizing straight to the timeline, it was not a work method that users took to very quickly. Production was sometimes slow due to time spent digitizing material, sometimes excessively. Journalists were required to plan what material they may require for their story, so as to avoid unnecessary digitizing. When the journalists and editors became familiar with the new tools and had gained some experience, they also began to recognize the advantages of editing in a non-linear environment. Even some of the more sceptical journalists came to appreciate the advantages that digital technology could provide. Moving from a linear to a non-linear environment did not make one methodology any better than the other; rather, each had different advantages.

Linear tape-to-tape editing is still undoubtedly the quickest method to get material from tape to air, in particular the material that is produced locally and is not available in any other format. Non-linear editing however provides a variety of possibilities for making quick changes and revisions. Currently one of the big tasks facing us is to be able to get our latest sport and ground-breaking news through the production process – at least as fast as would be the case in a tape-to-tape environment.

Stage two: access to shared material storage and server-based transmission – OmniBus and Avid AirSpace

Shortly after the stand-alone NewsCutters were installed, we began to tackle the next phase. This was to include the introduction of OmniBus, the router control and Columbus playout facility and the Avid AirSpaces (video servers). This would bring shared storage of material into the production area and enable the development of server-based transmission.

OmniBus router control was to provide an efficient means of routing the input and output sources for post production in the newly constructed MHALLI.

Two AirSpace video servers were also installed: one to be used for transmission with OmniBus Columbus, the other to record material. The material server would allow the NewsCutters to access material using FTP transfers. An OmniBus user interface was installed in the YLE24 NewsCutter suites to allow users to access the material easily.

OmniBus user interfaces were installed on an additional PC in each of the YLE24 (NewsCutter) editing suites – to control the AirSpace material server and enable the routing of LINE material directly to the NewsCutters' hard drives. The idea was to create a server-based production environment and to move away from tape as soon as possible. The initial goals were (i) to be able to record to the AirSpace material server (SILO), (ii) to send edited sequences to the transmission server (MYLLY) and (iii) to broadcast the news using OmniBus Columbus playout.

OmniBus Columbus was used to control the transmission AirSpace server. The three NewsCutter editing suites in the YLE24 news department were able to produce enough material to create the first hourly news bulletins for the new YLE24 channel. Using Columbus semi-automation, transmission was possible with just one operator. After a rather short period of tape backup, all the hourly newscasts were sent to air using OmniBus and the single transmission AirSpace (MYLLY).

Columbus playout is still in use. Currently one person operates Columbus, another takes care of the title graphics and there is a studio cameraman and a technical operations manager.

Stage three: Avid Unity for News

Over the course of about a year, stages 1 and 2 were further developed. The next step was to integrate and expand the system to cover all the production stages. We explored various other possibilities, but Avid Unity for News, with MediaBrowse, was the eventual favoured solution. We had had positive experiences with the NewsCutters and the AirSpaces, and Avid was the one manufacturer that could best provide an overall solution.

In the spring of 2001, there was no package readily available so we had to explore how the various components could optimally be knitted together. YLE had the simple requirement that any new software and hardware should be able to meet the demands of our news production schedules. We had to try as best we could to adapt any new tools to an already well-defined methodology, but from early on it became clear that new tools would cause further changes in how the job was to be done.

The installation of Avid Unity was started in August 2001. The installation was to include Unity servers, MediaBrowse and AirSpace servers. Avid Unity and all the related hardware were installed in our Central Apparatus Room. The installation was to include two AirSpaces for material ingest (one new purchase and the redeployment of SILO in this area) and three AirSpaces for transmission (two new, MYLLY was redeployed). MediaBrowse servers and software would allow us to send our recordings to the AirSpace and to capture browse-quality video for journalist editing. Three additional NewsCutters were installed; these would allow us to get the system running without interfering directly with production, as they would continue to operate in a stand-alone capacity. The existing production suites were to be brought online after initial onsite testing.

As the existing NewsCutters had to remain in production and to function in a stand-alone capacity, we had to simultaneously start testing *and* using the shared-storage environment from the outset. We had limited time to create a working environment and to make sure we could incorporate the existing production units as soon as the system was stable. The three primary goals were to establish: (i) technical stability, (ii) material ingest and (iii) a production workflow.

One of the big problems in the early stages was the stability of the new software, and dealing with the unscheduled changes and interruptions to production. There was some disruption to daily production in the beginning but, after the initial changes and testing were completed, the overall system was stabilised quite quickly, allowing us to develop the new workflow.

As we had done previously with the first NewsCutters, we allowed the existing tape-to-tape production to run in parallel, while we slowly moved into the new Unity environment. We were in no position to remove or even reduce our tape and linear work capacities. The demand for quantity had also increased over the past two years, so additional editing facilities were introduced to meet these demands.

In addition to having all this new equipment and storage, we had to be able to share the stored information – both as media assets and as a new way to approach news production. The importance of naming the material, and being able to locate it, were essential to being able to use the new system as a tool – otherwise it could easily have become just a lot of computer hardware with quite a bit of attached storage!

From this began the development of **media management**.

The development of a basic workflow, and the naming conventions to adopt for media management, were ongoing challenges. Users had to adapt to a radical new amount of material, which was to be processed at different levels (stages), and thus the requirement for a clear and efficient naming convention was essential. The material had to have a specific and informative naming convention so that different users could access it.

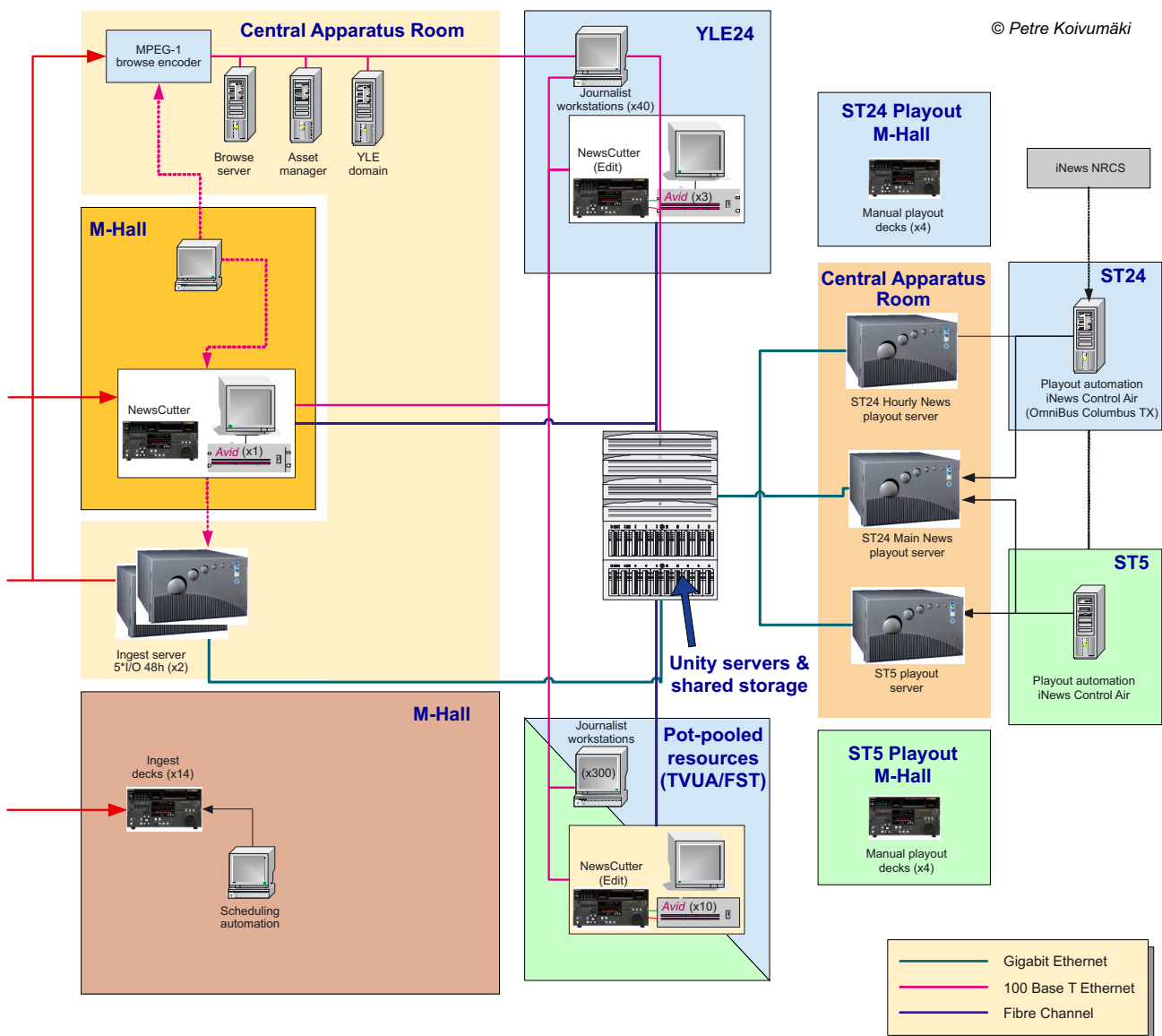


Figure 1
System architecture of YLE's (Avid) Unity for News

Material was being presented to all the users at a considerably higher volume than they were accustomed to. Any material in the system needed to be easily identified.

A naming convention was developed first for the incoming material, as it could not be processed otherwise. All recorded media was dated, given a source code and an item-specific name. The MediaBrowse and NewsCutter sequences needed to have specific names and, most importantly, all items going to air would need to have a unique Media ID. The YLE24 NewsCutter production had given us some experience of this. But there was a requirement for a naming convention that would be applicable across the entire system and for all the different production areas. We also had to allow for the possibility of expanding and including elements that we were not even aware of yet.

Basic training was given to the different users; journalists were at this time already familiar with editing in the NewsCutter (non-linear) editing suites. Explaining the concept of shared media, and how to use MediaBrowse, to several hundred users was to be no small task in itself: this was a big jump for all those involved.

Training was given to the editors individually while the journalists received MediaBrowse training in small groups. Media journalists were, perhaps, the most motivated to use the new system, as it proved to be a major benefit to them. Working as a small unit, it was easier to communicate any changes and explain how to use the system. The earlier experience of working with the AirSpaces made it a less drastic change than in the case of the other production areas.

But workflow and media management had to be uniform for the entire production area; this meant that all news departments would have to deal with a certain amount of change.

Media management, as its name suggests, is the managing of media assets. There is no simple code or equation that can do this; rather, it requires a combination of technology and traditional newsgathering methods.

The bridge between new technology and traditional newsgathering was to be a leap of faith. People needed to trust and understand that the news material was still there, even if you couldn't physically touch it. The users definitely put the new system to the test – and it had to prove itself convincingly before it would get any converts.

Technology usually works fine under its own conditions. However, when it is required to work within a fast-paced human-operated news environment, that is the time when it really gets tested: there is no laboratory or test site where satisfactory test procedures can be formulated. Experience, blood, sweat and some tears over the past 18 months have opened the Pandora's box that is *digitalization*. Each advancement has led to its own setbacks – and a realization that no amount of news planning can prepare you for what can happen on any day.

The current digital news environment

Material acquisition and ingest

MediaBrowse capture service, in association with OmniBus router control, are our main acquisition tools for ingesting material to the AirSpace server storage.

Nearly all the material sent to the AirSpace video servers is recorded, in parallel, to the MediaBrowse asset server – as low-resolution MPEG-1-quality video, for user viewing and editing.

Having browse-quality video allows us to distribute material to a large number of people simultaneously. In addition, having the broadcast-quality video on AirSpace gives us greater control over our material: when stored on tape, material often goes missing (e.g. tapes being borrowed and not returned!). The browse-quality video is slowly becoming a useful replacement for multiple duplicate copies of tapes for different users. In fact, over the 18 months since its introduction, the journalists have become quite accustomed to using MediaBrowse to view material.

The available browse material is drawn mainly from outside of our own newsgathering efforts – commonly it consists of foreign feeds and linked material, and stories from national and international news correspondents.

As mentioned earlier, the material acquisition area is called MHALLI (Media Hall). Through here, we record *all* material to tape and the *majority* of it also to the Avid AirSpace material video servers (MXSVR1 and MXSVR2). Each server has a storage capacity of 48 hours, when using DV25 411 video.

We have the capacity to record simultaneously across ten channels; eight channels have MediaBrowse encoders running in parallel to create the MPEG-1 browse-quality video. In the case of foreign news agency feeds (Eurovision, APTN and Reuters), we record all the scheduled feeds and news flashes, as well as other material that is required.

We also record (to the material video servers) all material that is linked to the TV news station, both domestic and foreign. All material that is not scheduled must be recorded manually using the MediaBrowse capture tool.

We use the newsroom computer system (Avid iNews) to generate lists of how different material should be marked, named and recorded (i.e. in which format). Some content that is recorded to the material servers is transferred manually to the Unity shared storage; this has proven to offer us both time and storage-capacity savings – but is also labour intensive.

Our news coordination department (EV) works in conjunction with MHALLI to select the foreign material for recording. MHALLI does the physical recordings, and the EV department transfers to Unity the material which is seen to have the greatest amount of news interest. On an average day, approximately 50 news items are transferred to Unity, from where they are accessible to all the NewsCutter editing suites.

One of the most challenging issues has been to establish a method for ingesting tape material to the shared storage and, at the same time, create browse-quality video. Material coming into the system can only be recorded in real time. We have begun to digitize selected material to the MX servers and are producing browse-quality video as well. This is allowing journalists the possibility of browsing their own material from a workstation / PC. At the moment we are doing this only for material that has the highest common interest for the different news departments. In the future, we hope to avoid the need to produce dub tapes of material, but

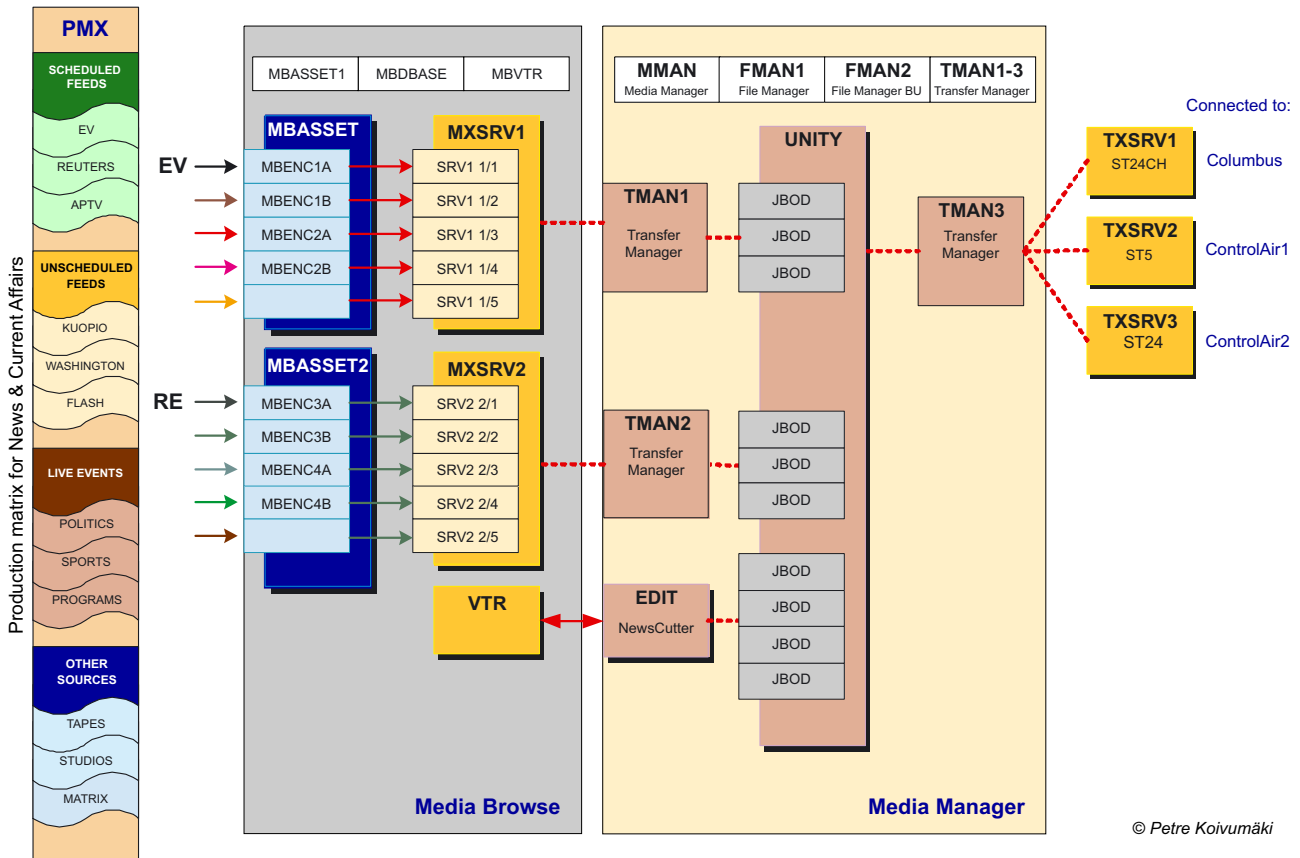


Figure 2
Basic components of YLE's (Avid) Unity for News

the biggest problem is to be able to ingest at speeds greater than real time *and* produce browse-quality video simultaneously. Not until we have all our raw material in the same system will we be able to envisage the full impact that digitalization will have on news production. Maintaining two different production methods makes it more difficult for users to assimilate, and is labour intensive.

Journalist editing / MediaBrowse

Using desktop PCs, journalists have viewing access to all the material stored in MediaBrowse – via 40 floating licences throughout the news area. In addition to just viewing (browsing) this material, journalists can choose the shots they want and save them as an edited sequence. MediaBrowse is flexible enough to allow the user to create relatively specific, yet simple, edits.

When this sequence is “conformed”, it causes the equivalent high-resolution (hi-res) video material to be transferred from the AirSpace video servers to the Unity shared storage, where it can be accessed for final editing on any of the NewsCutters. Conformance material is transferred to Unity at speeds typically three times greater than real time. A common problem we have encountered when journalists are conforming their edited sequences is either insufficient or excessive amounts of material. This varies greatly depending on the individual journalist and his/her familiarity with the software as well as basic editing techniques and requirements.

We store browse-quality material for varying periods of up to 30 days – usually for the same length of time that the equivalent hi-res material is stored on the video servers, or on tape. This is useful for viewing material for archiving purposes or to view material that has already been transferred (conformed) to Unity.

Journalist editing has best been implemented in the foreign news department where the majority of the material they require is available to them at their desktop (workstation). As they write the text, journalists can simultaneously (in association) edit the required video footage into approximately 40-second segments, which a media journalist or editor finalises (normally requiring only additional audio work) and then transfers to the transmission server.

Journalist editing is also useful for live events that are recorded to the servers.

In addition to the foreign news department, the news coordination department uses MediaBrowse as a key work tool in selecting specific material from feeds, naming this material and transferring it to Unity to be accessed by other users. Media journalists also use MediaBrowse to select their material for additional editing in NewsCutter. All picture editors are familiar with MediaBrowse but primarily use NewsCutter for their editing requirements.

Tape editing / NewsCutter

We have one fully-digital tape-to-tape editing suite, with digital Betacam and DVCpro 25. The remaining tape-editing suites use a combination of Betacam SP and DVCpro.

In news post production, we are running ten NewsCutter FXs operating in a traditional working method. Another NewsCutter, located in MHALLI, is being used to digitize material directly to Unity and as an optional playout device for material that is stored on Unity. There are also three NewsCutters in the YLE24 area for the use of media journalists.

NewsCutter FX is an adaptable work tool that can handle even the more heavy demands of the news environment. Its major weaknesses are only the real-time restrictions when digitizing material and the relatively slow speed at which effects are generated.

In the future we hope to expand our editing capacity to include a certain number of NewsCutter XP machines, to be used exclusively for the editing and adaptation of material that is in the Unity environment.

In NewsCutter, stories for editing are created locally on each editing PC and, when the story is ready, it is checked into Unity. Each NewsCutter editing suite also enables the transfer of material from the material servers direct to Unity. Material digitized through NewsCutter, from either tape or a line source, will not have

browse-quality video. Thus NewsCutter is the only tool at the moment where we can see all the material that is in Unity. Even though Media Manager is an easy and quite basic tool for searching for media, and organizing it, there are increasing needs to develop it further, as media management is one of the greater tasks facing us in the digital working environment.

Media Manager

Media Manager stores all the information relating to media in Unity. Unfortunately, at the moment, we do not have the possibility of generating browse-quality video of our finished stories, or of material or stories generated in Unity. Even though MediaBrowse may have the equivalent video footage to that which has been conformed to Unity, it does not have the finished transmission sequences.

One of the important features that will require development is the possibility of having at least browse-quality and hi-res material readily accessible to a wide number of users, and to have all material easily locatable in simple searches. We have encountered a relative level of difficulty in transferring metadata from one level in the system to another; for example, only a proportion of the MediaBrowse metadata is transferred from there to Unity.

Workflow and media management

To avoid large quantities of the same material being transferred by different journalists to Unity, we have a media management system developed in conjunction with our news coordination department. This system creates browse-quality sequences of material that is most likely to be of interest in the newsflow of the day, in addition to transferring material required by different news departments. Using a manual notation method (dope sheets) in our newsroom computer system (Avid iNews), journalists can easily see that certain material is available for editing in NewsCutter / Unity.

One of the biggest disadvantages at the moment is that we do not have all the material that we require in the digital news post production area. Raw footage captured to tape requires real-time digitization which is not often fast enough when an item needs to get to air quickly. The greatest disadvantage is not having all the material in the new shared-storage environment system, but needing to maintain and distribute material over two different platforms. At the moment this gives us a greater level of redundancy and stability but also requires a considerably larger amount of human resources.

The unavailability of all material does create a certain level of confusion in the production area. Even though Media Manager is a good search and management tool, it does require very specific and pedantic naming methods which are not as easily used and learnt as when described on paper.

Lessons learnt during the process of digitalization.

In addition to overcoming technical problems, and users having to learn new working methods and how to use new tools, perhaps the most important element of digitalization is *workflow*. (In the authors' opinion, digitalization is 10% technology and 90% workflow.) It is essential to remember that making the transition from analogue to digital is predominantly manifested in the changing of tools. Professional journalism is still very much the same as before, and the editing techniques in themselves have not changed.

Another big difference is how the journalists and editors use their time. A major complaint from both has been that there is more to learn and more needs to be done to obtain the same end result. To some extent this may be true if each journalist and each editor views the work done as an individual piece of work done for one story. Not only are we dealing with shared storage, we must remember that it is a shared resource. New technology has increased the possibility of generating greater amounts of material. News stories can quickly and easily be revised and versioned for other broadcasts but this, in itself, has not yet been realized to its full potential.

With the increased demand for additional broadcasts and news stories comes the apparent increase in work pace and perhaps the discussion arises: *are we compromising quality for quantity?*

It will require many generations of new software before this technology reaches its full potential. Before then, we can at least establish the methodology for using the current tools to their fullest.

Does digital mean better news?

There is an old saying: whenever it comes to predicting the future, we have a tendency to overestimate the near future but underestimate the long-term future. I think this applies quite nicely to the digitalization of TV news production. I have a little example to illustrate my case.

Something like five years ago we decided to conduct an experiment at YLE. We had just bought a couple of those very small digital cameras and decided to explore what happens if we send reporters out to shoot their own footage instead of using a camera crew. We chose some reporters on a voluntarily basis; they were really excited. And our traditional cameramen? ... well they were scared to death – they were expecting to lose their jobs soon!

So, the experiment started – but it also ended much sooner than we thought it would. Very quickly our reporters dropped out of the whole thing because they felt they couldn't produce such good material as the "real" cameramen. At first, we felt that the whole experiment had failed – but then we noticed something else. We found that the reporters who took part in our experiment now respected the work of cameramen much more than before. That also improved the reporters' working motivation. We had started the experiment with high hopes, but the result was quite different to what we had expected. And it was not a bad result.

When it comes to the effects of digitalization, we have seen nothing but a near future yet. What this new technology will really mean ... no one knows. But one thing is bothering me in these deliberations: that is the absence of basic journalism itself. Digital technology means that many people have access to the same material simultaneously ... it means we don't have to run after cassettes and tapes ... and it probably means dozens of other goodies too. Sometimes these advantages are discussed in such a way that makes it seem as if basic newsgathering is not even needed anymore. But ... before you can handle material digitally, someone must go out of the newsroom, gather pieces of material, put them together, then bring them back to the newsroom. This basic work is not digitized yet at YLE ... and probably never will be! This part of the job really makes for quality journalism.

Last spring (2002), I was asked to conduct a survey in TV news at YLE in order to find out how our workers felt about digitalization. We did this research work very carefully and the results were frightening. People were tired, they were worried and, most of all, they were scared. They were tired because during the digitalization era their tasks and jobs were increasing all the time. They were worried because they didn't know what new things they would have to learn tomorrow. And they were scared because they were not sure they would be able to learn those new things.

In an environment like this, what could one expect to happen to the quality of journalism? Surely you could expect the level of journalism to go down. But surprisingly ... nothing like that has happened. We did pretty well five years ago – and we are still doing quite well today. What explains that?

Maybe this ... Almost 20 years ago when I started in TV news as a reporter, we only had one news broadcast each evening to worry about. Ten years later we started our morning news and we had something like 15 broadcasts and a teletext service to worry about. And today, we have about 30 news broadcasts, teletext, an Internet service and a mobile phone service ... and probably some other services which I haven't even heard of yet!

During all these years, the trend has been very clear: produce more news in a shorter time! So we have had plenty of time to get used to the idea. Maybe - even though it has disturbed the everyday life in news production - this is the reason why digitalization has not managed to lower the level of journalism ... yet.

But has it done anything good yet? This is a very complicated matter. I hear quite often an argument that the new digital tools save time and working effort and, hence, we are more able to put effort into the quality of the journalism. I see it differently. Whatever time we save through technology, we spend on increasing our production output. And do I feel the quality is suffering ... or likely to suffer in the future. If it does, it may be in rather different and surprising ways. After all ... you ain't seen nothin' yet – but the near future!

Harri Palmolahti
Reporter, workflow development, YLE24

Only a few years ago, there were people who felt they did not require a mobile phone whereas, today, we find it almost an offence not to have a mobile phone switched on. If a certain individual is not contactable at all times and all locations, this is a matter of “shared” interest – the interest of *many* over that of the *individual*. And in a way this applies to the digitalization of post production at the moment. The process is still in its infancy and we are at a very crucial point in seeing how things will develop. How we divide our resources and time in the future will best determine how we will manage the challenges of change.

Appendix A: Terminology and system details

Work areas

MHALLI

Ingest, acquisition, Avid NewsCutter FX (x1), OmniBus router control, Avid MediaBrowse recordings using Capture Tool, tape recordings (all formats), archiving, transmission, tape playout and Avid iNews ControlAir.

EV

International News coordination department, Avid iNews, Avid MediaBrowse, Avid Media Management.

POT EDIT

Avid NewsCutter FX (x10): each editing suite is fully equipped to handle all editing requirements. In addition there are ten tape-editing suites. Editors work with journalist. Each editor is designated an editing suite and the shift manager divides the work on a first-come first-served basis. The journalists are responsible for gathering their required material either on tape or by creating a browse conformance.

YLE24

Avid NewsCutter FX (x3), situated in their own editing suites but in the immediate vicinity of the news desk. Multitasking editing environment, primarily for the production of 40-second news bulletins. Media journalists are responsible for gathering, editing and putting to air of all the video material while another journalist writes the text. Close proximity allows them to work together, but material is produced by both simultaneously as opposed to the more traditional methods used in the POT EDIT area.

News departments

YLE24

All Finnish-language news generated in various departments: domestic, foreign, politics, sport etc. The main news broadcasts are at 17:00, 18:00, 20:30 and 21:50. The majority of the material for these broadcasts is produced in the POT EDIT area.

YLE24 news bulletins

There is a small department that works closely with the media journalists in producing the hourly news bulletins – a 5-minute broadcast each hour, mainly composed of 20- to 40-second news items and one or two short features.

Sports news

Our daily sports news is produced in the POT EDIT area. Sports items are normally included in the main news programmes but, at 20:30 and 21:50, they are broadcast immediately after the main news.

TVNYTT

In addition to our Finnish news broadcasts, we have a Swedish-language news department that produces three broadcasts a day at 18:15, 20:00 and 23:10. These news items are also edited in the POT EDIT area.

Current Affairs

We have daily Finnish- and Swedish-language current affairs programmes that are edited in the news post production area.

AVID Unity for News – system details

Avid Unity for News gives us 240 hours (mirrored) of DV25 material, which can be accessed by all the News-Cutters. Metadata can be accessed from all the news-area workstations using Media Manager software which runs on Microsoft Internet Explorer browsers.

In the YLE News Post production Area we are using (as detailed in the Unity maintenance document):

Unity Filemanagers:

- FMAN1 : primary;
- FMAN2 : backup.

Unity Media Manager

- MMAN, there is only one Media Manager, no back up.

Unity Transfer Managers

- TMAN1 : ingest transfer manager, transfers material from MXSVR1 to Unity workspace TM1;
- TMAN2 : ingest transfer manager, transfers material from MXSVR2 to Unity workspace TM2;
- TMAN3 : playback transfer manager, transfers material from unity to all 3 transmission AirSpaces, there is no redundancy or failover transfer manager for playback.

AirSpaces:

- MXSVR1: material AirSpace video server, 48 hours capacity, 5 ports in and out;
- MXSVR2: material AirSpace video server, 48 hours capacity, 5 ports in and out;

- TXSVR1: transmission AirSpace video server, 48 hours capacity, 3 ports, connected to OmniBus Columbus;
- TXSVR2: transmission AirSpace server, 12 hours capacity, 3 ports, connected to ControlAir 1, studio 5;
- TXSVR3: transmission AirSpace server, 12 hours capacity, 3 ports, connected to ControlAir 2, studio 24.

MediaBrowse

- MBDBASE: database server;
- MBASSET: asset server;
- MBASSET2: asset server;
- MBVTR: VTR server.

MediaBrowse MPEG-1 encoders

MBENC1:

- Channel A: produces MPEG video of MXSV1R1;
- Channel B: produces MPEG video of MXSV1R2.

MBENC2:

- Channel A: produces MPEG video of MXSV1R3;
- Channel B: produces MPEG video of MXSV1R4.

MBENC3:

- Channel A: produces MPEG video of MXSV2R1;
- Channel B: produces MPEG video of MXSV2R2.

MBENC4:

- Channel A: produces MPEG video of MXSV2R3;
- Channel B: produces MPEG video of MXSV2R4.

NewsCutters

- POT – daily news production area, where primarily the news is edited by the picture editor and journalist together;
- YLE24 – these editing suites are primarily used by the media journalists to create items for the hourly news bulletins.

Unity Clients

- EDIT01: POT
- EDIT02: POT
- EDIT03: POT
- EDIT04: POT
- EDIT05: POT
- EDIT06: POT
- EDIT07: POT
- EDIT08: POT
- EDIT09: POT
- EDIT10: POT
- EDITFF: POT

- EDIT21: YLE24
- EDIT22: YLE24
- EDIT23: YLE24

Editing suites

At the moment each editing suite is equipped with a:

- Yamaha mixer;
 - NewsCutter FX;
 - Beta SP;
 - DV layer recorder;
 - Microphone;
 - Journalist PC, running MediaBrowse;
 - Matrix Connection.
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