



NM2 Newsletter August 2005



Content

Are you sitting comfortably? NM2's first pilot productions prepare for evaluation	1
Windows Media Center, for now.	3
Evaluation plans in place	3
Tool development progressing well.....	4
How machines can help	4
NM2 in the public eye.....	5
Advisory Committee thinks that NM2 is on track	5
About NM2	6

Are you sitting comfortably? NM2's first pilot productions prepare for evaluation

At the core of NM2 are its seven media productions. The NM2 production and technology teams have worked together closely to define the individual requirements of each production. Writers and producers have defined precisely what form of non-linear narrative they wish to explore, and the production journeys of each idea from script to screen have been pinned down.

Now the first two NM2 productions "*Cambridge City Symphonies*" and "*Gods in the Sky Choice*" are entering their final stage. These productions have been developed using existing experimental production tools. Their main purpose is to ensure that the tool development work is focused on real production-led issues and to act as pathfinders for the subsequent productions, helping them to avoid the potential pitfalls.

Several approaches for interface design are being investigated through the two productions. Macromedia Director, dynamic HTML and the extensions offered within the Windows Media Center environment as well as Macromedia Flash have all been used in the development of user interfaces. The relative merits of the different approaches will be reviewed and provide valuable feedback on best approaches for designing such interfaces.

Cambridge City Symphonies

Montage, an approach to editing moving pictures practiced and analysed by outstanding early soviet filmmakers, underlies the 'City Symphony' genre from the 1920's. *Cambridge City Symphony* updates, transposes and applies their formal principles to create a reconfigurable interactive production, demonstrating how well structured montage (as opposed to continuity editing and storytelling) can provide a fruitful model for spatially organised audiovisual narrativity in the digital environment.

This production pilot uses the concept of a broadband post card as the loose basis for its evaluation. Users are invited through the spatially organised interface to "ask" the machine to create a short broadband postcard based on specific locations across Cambridge Market Place. Evaluations will be based upon an assessment of that experience and of output of that experience. We think the idea can be extrapolated to the creation of personal postcards that would reflect the key locations an individual wished to recall from a holiday. This

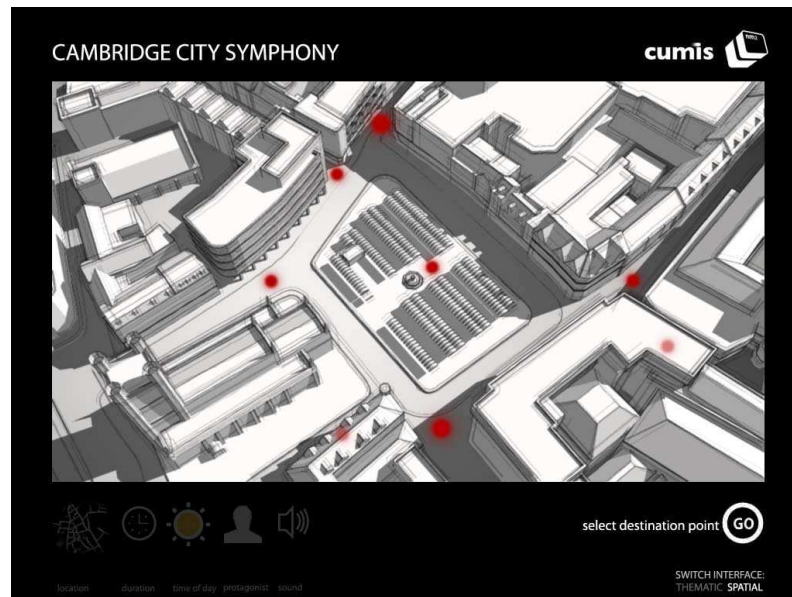


NM2 Newsletter August 2005



concept could become a commercial application of the technology and know-how developed in this pilot production.

The screenshot below is taken from one of the interface screens through which the users are invited to indicate the locations of importance they wish to use for their personal broadband postcard.



Gods in the Sky Choice

Gods in the Sky Choice experiments with interactive, personalisable reconfigurations of three thought-provoking 50-minute programmes exploring ancient myths in colourful and imaginative drama, dance and puppet theatre form, with a new astronomical interpretation by the presenter, Dr. Allan Chapman of Oxford



basic
navigation
buttons

University (originally made by WagTV for Channel 4). This pilot demonstrator applies a tri-modal system of structuring and interaction (based on the BBC's entertain, educate and inform mantra), which enables a wide variety of focused, structured programmes to be configured on demand.

The interface (inset) developed for this production is games-like, using carousels rather than lists to introduce the deeper options. A conscious effort is being made to move the interface away from being 'like the web' and to make it easy to use and conceptually simple.



NM2 Newsletter August 2005



Windows Media Center, for now.

The NM2 consortium considered the choice of client target at length and has chosen to use Windows Media Center as its prime client device. NM2 wants to deliver its productions to a TV set in the living room and to work with a solution representative of solutions across the continent. The current market situation is highly fragmented with no dominant player and no open framework.

NM2 has made the judgement that the Media Center, more than Sony (PS2), Microsoft (Xbox), Nintendo (Revolution), PACE, Siemens, Thomson etc., is the closest thing to an open standard – the other options seem to be either even more proprietary, less likely to exist in 3 years time, or both of these.

Open standards are desirable and NM2 has sponsored the development of proposals for open middleware. At the recent MPEG meeting in Posnan (Poland) this was realised in the announcement of M3W (MPEG Multimedia MiddleWare) the call for which was part authored by BT under the sponsorship of NM2. M3W is intended to provide a standardised support framework for multimedia codecs, but also provides a standardised interface to any multimedia hardware platform. M3W will hopefully become a standard in 2-3 years time.

Such an open standard based frameworks would be ideal for and preferred by NM2, but this particular initiative is just too late - or NM2 is too early!

Evaluation plans in place

NM2 wants to ensure that its tools and productions are fully in line with real user requirements and that they are designed in a way customers will accept them. Therefore, an extensive evaluation programme is going on within NM2. The evaluations of the first two productions are happening in late summer this year. The NM2 partner TNO, who has a lot of experience with user analysis, is conducting the evaluations.

The first evaluation of an NM2 production with “real people” took place in Cambridge at the end of July. About 20 people engaged with “Cambridge City Symphonies”. The overall opinion of the respondents was positive. Most criticism had to do with the fact that not all possible choices were implemented. A few quotes of people’s first reaction to the production:

“It seems very interesting to tailor your own program, also to make the selections. The interface was not difficult to figure out”

“I really liked it. I liked the aesthetics and it is also good to get a city symphony of a city you already know and recognize the spots or see some new spots”.

“Irritating, it’s very confusing. The combination of narration and music is too much. You expect the narration to match the images. I liked a lot of it, but I did not feel in control”.

“Very cool, I like the typography, very stylish, animation is good, design and lay out are cool & clear. I like some of the photography very much. Would like to see it on a bigger screen”



NM2 Newsletter August 2005



"I can imagine something like this is useful in information centers or on the internet. You might add additional information about opening hours and so on. It would have a double purpose than for people from abroad, but also for people from Cambridge".

"The interface is well designed. I was immediately familiar with it. It took a while to get started because some links were not working yet. I was visually attracted to it".

"..... Nevertheless I liked it, because it gives angles that one does not know, even though one knows the place well".

Tool development progressing well

Key to the success of NM2 is the development of comprehensive production tools for the new interactive media genres.

Our priority so far has been to focus on tools, which are necessary very early in the production workflow. At the start of the project, several of the NM2 production teams suggested that pre-production tools could be made to facilitate activities such as the logging of shots immediately after a shoot and the testing of scripts for interactive movies. The development teams have now successfully built a prototype pre-production tool to address these requirements. It has been deployed with several of the partners and is unique in its ability to both log shots and import scripts which have been created using Microsoft Word. This will mean that vital metadata created by the scriptwriter can be carried through the complete production workflow.

Also essential at an early stage are tools to attach meaning and description to media objects which will be used later on when authoring and delivering interactive narratives. These tools allow both automated analysis of visual features and efficient manual annotation based on production specific ontologies.

Supporting both the Production Tools and the Delivery Systems in the NM2 architecture is content middleware. In recent months the development teams have begun work on the essential behind-the-scenes engineering, which will provide seamless access to both production metadata and the automatic creation of interactive narratives.

In November 2005, the team expects to release the first version of the end-to-end Production System. This will be a major milestone and the first proper test of the new prototypes in real creative environments.

How machines can help

The productions of new media will only become a reality if they can be done without increasing production costs. One of the NM2 approaches is to build production tools undertaking media description tasks automatically, which otherwise are very labour intensive. Putting it more concretely, the NM2 description tool will incorporate computer vision and image understanding algorithms, which extract information about the content and meaning directly from the visual source.



NM2 Newsletter August 2005



At the beginning the developments concentrate on low-level features like shot border detection, dominant colour and intelligent extraction of keyframes. These features are easy to calculate but still are very valuable instruments for a first preparation of all material before going into the authoring phase.

More advanced features will include the detection of camera motion (pan left/right, zoom in/out, tilt up/down), centre of activity, shot type extraction (e.g. wide shot, close-up) and face detection. Those features can already be used to facilitate automated content selection procedures at the delivery stage based on engager intervention. Finally it is envisaged to automatically understand the emotional state (e.g. anger, happiness) of performers.

All those feature descriptions are stored in a fully MPEG-7 compliant way, the international standard for multimedia content description.

NM2 in the public eye

NM2 has been present at various events to introduce its goals, and to present first scientific results.

- NM2 partner BT presented NM2 at EWIMT 2004, which took place on 25-26 November 2004 in London (<http://ewimt.qmul.net/>).
 - Terry Wright from University of Ulster made a presentation at the international conference on Technology, Knowledge & Society in Berkeley on 18-20 February 2005.
 - Our Greek partner Aristotle University of Thessaloniki got conference papers accepted for EUSIPCO 2005, which takes place on 4-8 September 2005 in Antalya (<http://www.eusipco2005.org/>), and for PCI 2005, taking place on 11-13 November 2005 at Volos, Greece (<http://pci10.inf.uth.gr/index.html>).
 - TNO has submitted a conference paper for the AXMEDIS conference "1st International Conference on Automated Production of Cross Media Content for Multi-channel Distribution" on 30 November - 2 December 2005 in Florence, Italy (<http://www.AXMEDIS.org/axmedis2005>).
-

Advisory Committee thinks that NM2 is on track

To ensure that the project remains aware, open to and influenced by the world outside the project, an Advisory Committee has been set up with seven members from industry and research including high-level representatives from broadcasting companies like the BBC.

The first meeting between the NM2 project team and the NM2 Advisory Committee took place on 29 April 2005 in Malmö, Sweden. It was an encouraging encounter. The Advisory Committee members independently underlined the importance of new media genres for a prosperous future television and media landscape and acknowledged that NM2 was pursuing a useful research approach to the problem. They all offered to help exploit the NM2 productions by acting as mentors to the productions.



NM2 Newsletter August 2005



About NM2

NM2 is an Integrated Project of the European Community's 6th Framework Programme Thematic Priority 2 (Information Society Technologies). It was submitted to the second call of the programme and addresses the strategic objective "Cross-media content for leisure and entertainment". The project is partly funded by the European Commission.

NM2 is running from September 2004 to August 2007 and has an overall budget of about 7.5 million euro. 13 partners from 8 European countries are involved in the project.

NM2 unites leading creative and technology experts from across Europe to address a great opportunity for businesses and consumers in the near future: how to develop compelling new media genres, which take advantage of the unique characteristics of broadband networks. The project will create new production tools for the media industry that will allow the easy production of non-linear broadband media genres which can be personalised to suit the preferences of the individual user. Viewers will be able to interact directly with the medium and influence what they see and hear according to their personal tastes and wishes.

Further information is available at: <http://www.ist-nm2.org/>

The next NM2 Newsletter is scheduled for December 2005