

Broadband Testing

A graphic with the text 'Broadband Testing' in white, bold, sans-serif font. The background is a dark blue rectangle containing faint, stylized icons of a laptop, a server tower, and a network switch connected by lines.

Video3 Electern Internet Presentation Service

A Broadband-Testing Report

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BROADBAND-TESTING

Broadband-Testing is Europe's foremost independent network testing facility and consultancy organisation for broadband and network infrastructure products.

Based in the south of France, Broadband-Testing offers extensive labs, demo and conference facilities. From this base, Broadband-Testing provides a range of specialist IT, networking and development services to vendors and end-user organisations throughout Europe, SEAP and the United States.

Broadband-Testing is an associate of the following:

- *NSS Network Testing Laboratories (specialising in security product testing)*
- *Broadband Vantage (broadband consultancy group)*
- *Limbo Creatives (bespoke software development)*

Broadband-Testing Laboratories are available to vendors and end-users for fully independent testing of networking, communications and security hardware and software.

Broadband-Testing Laboratories operates an **Approval** scheme which enables products to be short-listed for purchase by end-users, based on their successful approval.

Output from the labs, including detailed research reports, articles and white papers on the latest network-related technologies, are made available free of charge on our web site at <http://www.broadband-testing.co.uk>

The conference centre in Moux in the south of France is the ideal location for sales training, general seminars and product launches, and Broadband-Testing can also provide technical writing services for sales, marketing and technical documentation, as well as documentation and test-house facilities for product development.

Broadband-Testing Consultancy Services offers a range of network consultancy services including network design, strategy planning, Internet connectivity and product development assistance.



INTRODUCTION

Presenting Over The Internet *And* Saving The Planet

You know the old joke about “what’s the secret of good com...?” – Timing!

Well if you don’t, that abbreviated word is comedy and exactly the same has applied to WAN/Internet-based conferencing products and services that have looked to make the most of broadband availability. Not that they have all been comedic – though many have – but that the timing has been wrong. The first-wave of conferencing products were both far too expensive and incapable of delivering genuine innovation. Still today, the idea of having a single fixed camera in a company boardroom on one side of the world, and another in a boardroom on the other side of the world, connected via an expensive, nailed-up WAN connection (in order to guarantee the required bandwidth) is common *and* still as irrelevant as ever to 99.9% of users out there.



Figure 1 – Another Exciting Videoconference...

Electern “In A Nutshell”

Electern is a complete application and service package bringing a truly innovative approach to Internet-based presentations, aimed at distance learning, conferences, briefings and related events and applications and all kinds of eLearning.

Its’ key elements are flexibility and ease of use – two of the classic failings of previous-generation products. It is also extremely efficient in use, notably its bandwidth requirement, so any – however basic - broadband Internet access service should be capable of delivering an Electern presentation perfectly.

What this adds up to is an affordable but high-quality, easy to use service that any company, education establishment or public body – or anyone with this requirement – can and should buy into.

Another problem was in the many companies offering services that required genuine broadband Internet access before the latter was truly ubiquitous which, for the purposes of this report, we will argue it now is.

The likes of Skype, offering free (at least currently), albeit basic, "tele" conferencing across the 'net was a pointer in the right direction. Here is an application that is still universal – sharing telephone conversations with one or more others in different parts of the world. The key here was – and is – in providing a service that people actually *want*.

Electern And The Business Case For The Service Provider

We might as well face it – in many cases the Service Provider's lot has not been one of outstanding financial success to date.

And this, despite having little or no problem attracting customers. The problem instead has been finding ways of actually making money out of those business opportunities, given that there simply isn't enough revenue in providing plain old Internet access to offset the cost of provisioning and managing that service. As a loss leader, fine, but then the problem is in providing that customer base with higher value services that they actually want to pay for. Technology barriers?

Until fairly recently, broadband Internet access was by no means as widespread as the likes of BT and others would have you believe. But now it is truly ubiquitous and the technology is in place to allow users to receive voice, video and data over the same media, regardless of whether they are located in a large office, small office or home environment.

What better, then, than to take some of the most natural of IT applications – computer-based presentations, training and learning – and make them available as a "pay as you need" service across the Internet? The Service Provider is in control of the delivery of those applications, using its existing hosting facilities, network and management/billing tools but is offering a completely new service – one that it can actually make money on – that people really want.

This is a simple formula that can only lead to one bottom line result – profits. The question is, will they have the imagination to take advantage of such an opportunity? We can only hope the answer is "yes".

So if the original form of WAN or Internet-based conferencing was hardly innovative, then what next? The IT world is obsessed with finding new "killer applications" while ignoring the obvious needs of the user base. One such example is the daily art of presenting... According to Microsoft there are at least 30 million PowerPoint presentations alone made each day. And how many of those require some element of traffic for some, or all of the speakers and audience?

Ok – so in some cases, the need for everyone to be present in the same physical location is a requirement that, realistically, we can't get away from just yet. But even then, why does that presentation have to be restricted to those within the four walls of that seminar

hall, while the best those non-attendees are likely to see is an emailed copy of the presentation (or worse still, a printed hard-copy)?

We at Broadband-Testing have to raise our hands and say, "yes – we are guilty of this crime too". Several times a year we are required to fly out somewhere to present to a lot of bodies in the IT world who have also flown out from somewhere, or driven the length and breadth of a country to get to said location. And those who cannot attend simply see the static, emailed version of the presentation slides, sometime in the future, probably when it's too late to be of relevance.

So what if we all could help save the world's oil resources by watching live (or canned) presentations from anywhere in the world where we had a decent Internet connection, regardless of where that presentation was being made? Well we can, the service is called Electern and it's from Video3, a start-up based in Scotland. So read on...

Marratech From Video3

While Electern is a "one-to-many" conferencing tool, Video3 can also provide full integration with a many-to-many video conferencing application, Marratech, so web collaboration brings true video conferencing to the Internet.

Since it is a client-server application, Marratech is licensed on a per-server basis, so the number of clients is unlimited, so the number of conference "delegates" you have is up to you. All they have to do is download a free software client first. Or, using "MeetNow!" a link can be sent via email to an attendee so all they have to do is click on the link and it connects them to their meeting via the web browser.

The screenshot shows a video conference window titled "Corridor - Marratech". Inside the window, a Microsoft Excel spreadsheet titled "Sales Results.xls" is displayed. The spreadsheet shows sales data for various regions (East, West, Central) across quarters (Q1, Q2, Q3, Q4, Q1, Q2). A bar chart below the spreadsheet shows sales trends. A callout box points to a cell in the spreadsheet with the text "Significant increase!!". To the right of the spreadsheet is a video feed of a woman, Sara, who is smiling and wearing a headset. Below the video feed are several smaller video feeds of other participants. At the bottom of the window, there is a chat area with a public chat box and a list of participants.

	Q1	Q2	Q3	Q4	Q1	Q2
East	690	920	1115	1250	1200	1220
West	612	650	690	720	740	1300
Central	480	510	450	840	920	930
Actual	1982	2080	2285	2810	2860	3450
% Achieved	115%	116%	113%	129%	123%	133%

ELECTERN

An Overview

Electern has been designed by Video3 to be a truly innovative approach to Internet-based presentations, aimed at distance learning, conferences, briefings and related events and applications and all kinds of eLearning.

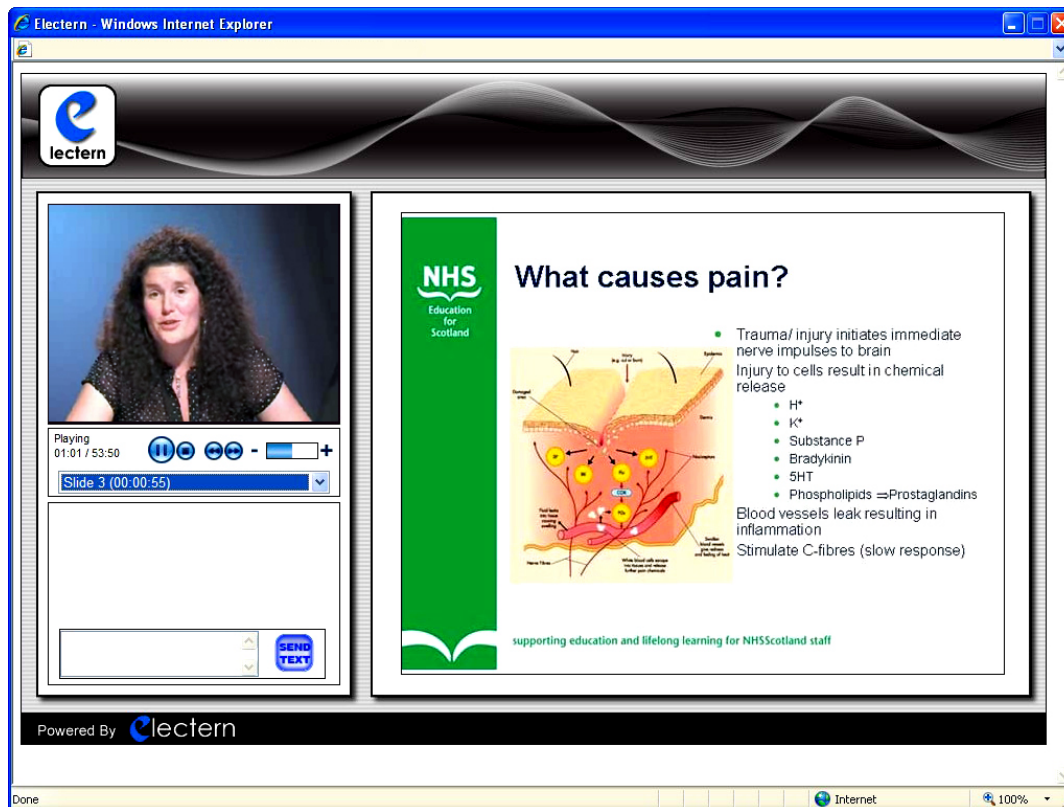


Figure 2 – Electern In Use

One limitation the company saw with existing attempts at Internet-based conferencing was a lack of interaction options between presenter and attendees – viewers in Video3-speak. So, Electern has created a package that enables two-way communication between the presenter and the viewer at all times during a presentation. Another complexity the company saw in existing attempts at providing remote conferencing was that the solutions were simply too complex to set up and use, in order to be truly useful (which probably explains the number of abandoned conferencing product you see gathering dust in many boardrooms and offices).

This ease of use concept has been equally applied to creating and presenting, as well as from the user perspective, of viewing the presentations. There are no long-winded downloads of proprietary agents software for the user to carry out before logging into a session – a regular combination of Internet Explorer and Windows Media Player is all that is required.

The package includes video, slides, live chat, question and answer system, voting system and document download facilities. Importantly, the whole service can be hosted and accessed, securely, via the Internet.

Electern In Use – From The Administrators/Presenters Perspective

Before an audience can view a presentation – logically enough – someone has to prepare one. For this, Video3 provides a presentation development toolkit as part of the Electern package.

This consists of a set of onscreen tools, accessed via a browser, just like the delegate user (viewer) interface, the key elements being the Control Panel and the Administration Panel.

The Control Panel

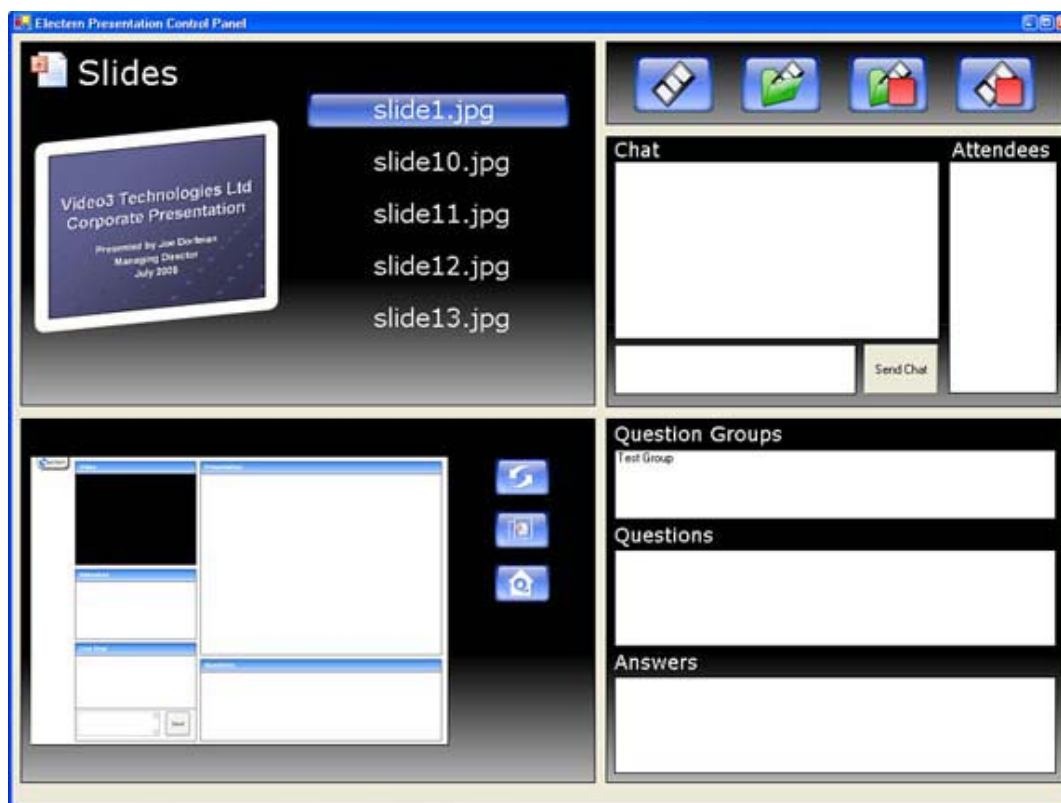


Figure 3 – The Control Panel

At the heart of presentation development is the Control Panel. All of the elements that appear in the viewer's browser are controlled from here. From here you also select both your audio and video devices so that Electern is able to stream the video and audio content to the server.

While the underlying process itself is extremely complex - starting the video stream, connecting to the server, changing slides, presenting questions, swapping video and slides and monitoring the chat window - each of these processes has been reduced to the click of a button using the Control Panel interface.

In addition you are presented with a graphical representation of exactly what the delegates are seeing at any given time throughout the presentation itself. When you change slides the correct slide will appear in the presentation window.

When you send a question you will see it appear in the Questions window and if you choose to swap around the presentation and video windows you will see this happen here as well. In other words, you see as close as possible to what the viewer is actually seeing remotely, which is very important.

The control panel itself is divided into five sections. The Slides window displays the slides and allows the presenter to review them, simply by pressing up and down on the arrow keys. The Video Control window has been reduced to four simple functions, 'start video', 'start archive', 'stop archive' and 'stop video'. The window below the slide window controls what appears in the delegates' browser and gives you a graphical representation of what they are seeing. Again there are three simple control buttons, 'swap video and slides', 'send slide' and 'send question'.

The questions appear in the window next to these buttons and by selecting the appropriate question from the list and clicking the "send question" button it appears in the viewers browser, along with the multiple choice answers. Finally a copy of the chat facility in the viewers browser is present so that who ever is controlling the presentation can see what the viewers are typing and can respond directly themselves, should they choose to.

Administration Panel

General administration is carried out via the Administration Panel. This breaks down the key administrative tasks involved in creating and managing presentations into six sections which all combine to create the final presentation that the delegates eventually see. These elements can be compiled at any time prior to the presentation itself and are stored on the Electern server ready for use.

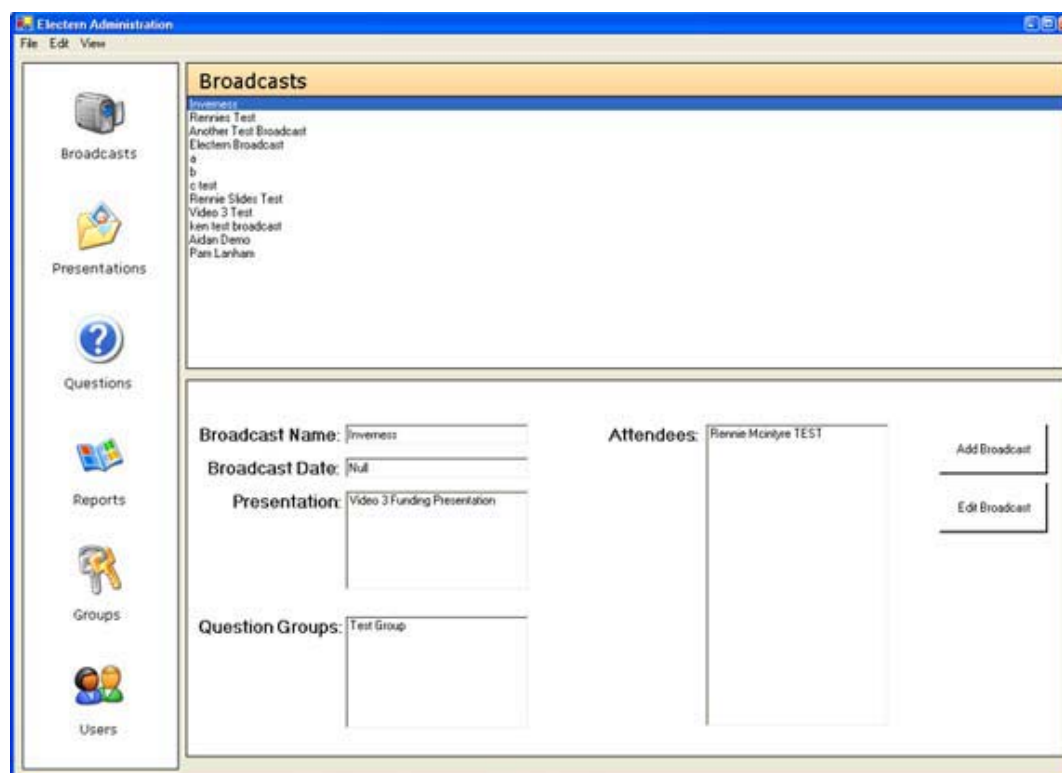
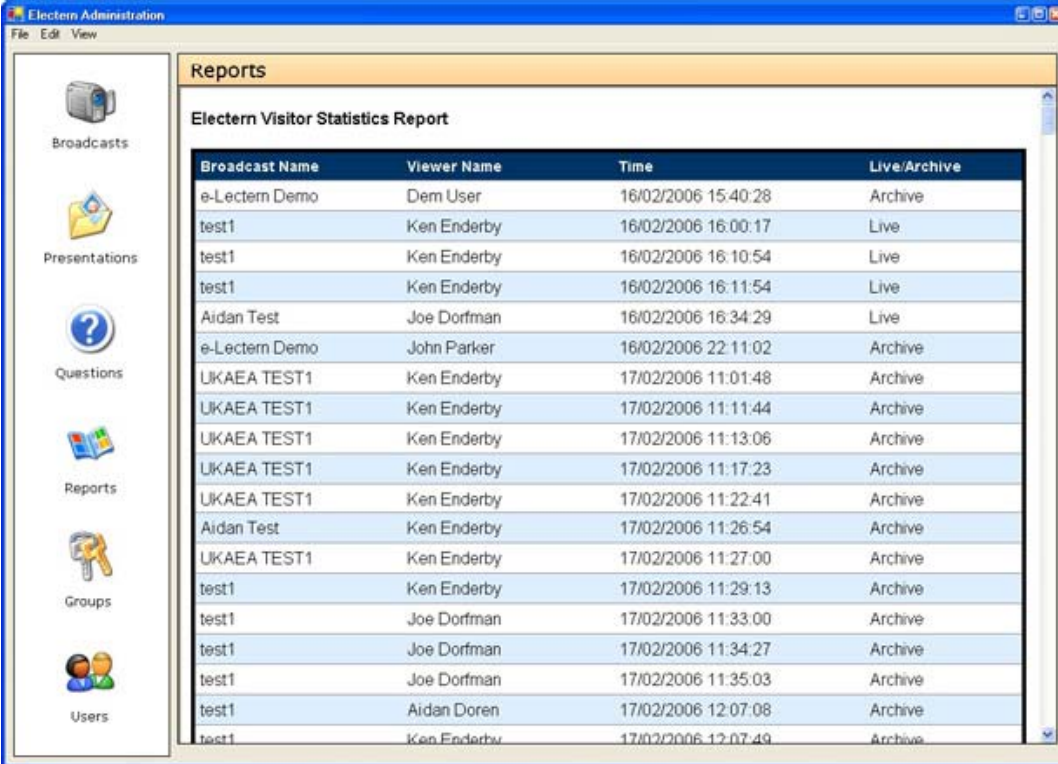


Figure 4 – The Administration Panel

Again, the Administration Panel helps make like easy. For example, normally, PowerPoint presentations, in order for them to be used in a web browser, have to be exported, slide-by-slide, in a "browser friendly" format. With Electern however, this task is reduced to simply clicking the 'add new presentation' button, directing the browser to the saved PowerPoint, clicking the 'Create Presentation' button and the software does everything else for you, including sending the slides to the server ready for use. Very neat...

This is where you also set up your users and groups of users. The latter is a simple concept. A broadcaster can have hundreds, if not thousands of potential viewers who all have to be entered on the Electern server for security purposes. When creating a new broadcast you will have to enter the attendees or those permitted to view the broadcast over and over again. This button allows you to add attendees to a group, such as a class or division, so that rather than having to enter the details for each individual you can instead import the group dramatically cutting down your setup time.



The screenshot shows the 'Electern Administration' window with a 'Reports' section. The 'Electern Visitor Statistics Report' table contains the following data:

Broadcast Name	Viewer Name	Time	Live/Archive
e-Lectern Demo	Dem User	16/02/2006 15:40:28	Archive
test1	Ken Enderby	16/02/2006 16:00:17	Live
test1	Ken Enderby	16/02/2006 16:10:54	Live
test1	Ken Enderby	16/02/2006 16:11:54	Live
Aidan Test	Joe Dorfman	16/02/2006 16:34:29	Live
e-Lectern Demo	John Parker	16/02/2006 22:11:02	Archive
UKAEA TEST1	Ken Enderby	17/02/2006 11:01:48	Archive
UKAEA TEST1	Ken Enderby	17/02/2006 11:11:44	Archive
UKAEA TEST1	Ken Enderby	17/02/2006 11:13:06	Archive
UKAEA TEST1	Ken Enderby	17/02/2006 11:17:23	Archive
UKAEA TEST1	Ken Enderby	17/02/2006 11:22:41	Archive
Aidan Test	Ken Enderby	17/02/2006 11:26:54	Archive
UKAEA TEST1	Ken Enderby	17/02/2006 11:27:00	Archive
test1	Ken Enderby	17/02/2006 11:29:13	Archive
test1	Joe Dorfman	17/02/2006 11:33:00	Archive
test1	Joe Dorfman	17/02/2006 11:34:27	Archive
test1	Joe Dorfman	17/02/2006 11:35:03	Archive
test1	Aidan Doren	17/02/2006 12:07:08	Archive
test1	Ken Enderby	17/02/2006 12:07:49	Archive

Figure 5 – Administration Panel: The Reports Screen

There is also a Reports option. The Electern server records all activity for all viewers including viewer's details, IP address, questions viewed, questions answered and results. Additional information such as browser used, operating system and time on the server are also available.

All this information can be used to generate a report – the individual customer chooses to see only the detail they need – with a single button click, such as the Visitor Statistics example shown above.

The Range Of Services Video3 Provides

Video3 appreciates that many would-be conference presenters do not have the skills to create a pre-packaged video as part of the presentation, or to film live for a live presentation – for example, from a public seminar or exhibition. For this reason, in addition to the presentation software service, the company can also provide video and audio expertise, attending a conference with a film crew and video encoder, to film and stream live as required. The recorded video can also be hosted for playback by Video3.

In most conferences speakers tend to use visual aids such as PowerPoint slides. It would be almost impossible to read these in the background of a streaming video so Video3 has designed its own system that appears in a standard web page with the streaming video in one window and synchronised slides appearing in another. All that is required for this service is for the presenter to submit the slides to Video3, prior to the presentation.

An after the event option is for when the – now stored and hosted – canned presentation is viewed online, any questions set in that presentation can still be answered “live” and the responses emailed to the presenter, so the package still functions as a live presentation delivery mechanism.

Electern In Use – From The Delegates Perspective

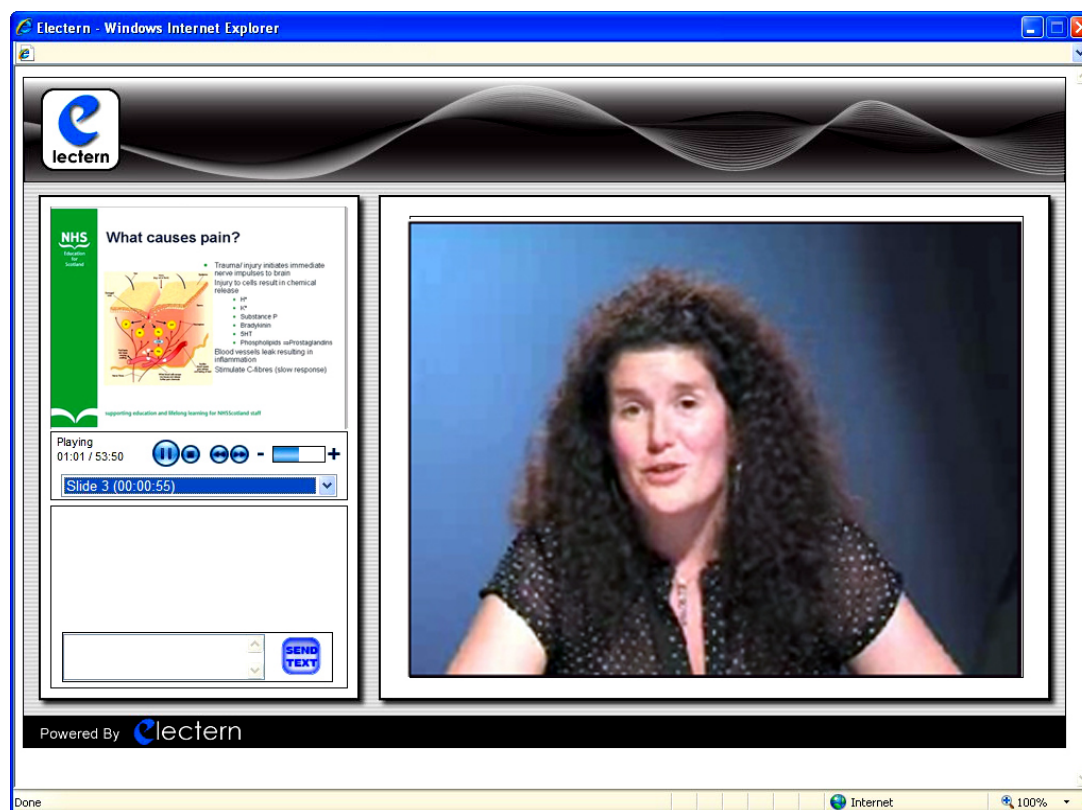


Figure 6 – Electern: The User Experience - In Conference

Of course, all the presentation development tools in the world would be useless if it was difficult for the conference delegate to view the finished article.

Fortunately it is the complete opposite – absolute simplicity – to the point where they don't even have to download any client software but simply point the web browser at the correct link, where they are met with a login screen, having been previously advised of the login name and password required to connect to the conference – just as with a teleconference and the PIN equivalent.

The user interface, AKA the viewer panel, consists of four main areas, a video window, a slide window, a live text chat window and a question and answer section. One really neat feature is that the video and slides can switch between windows, so if you want video in the larger of the two windows, then it can be switched, likewise the presentation slides. This kind of flexibility is indicative of the amount of thought that has gone into developing Electern.

When watching pre-recorded presentations, controls are very much as for a classic cassette or CD player – stop, start, fast-forward, rewind and volume. The total length of the presentation and how far through you are is also indicated, along with a slide selection bar for fast-forwarding to another part of the presentation

**Electern: The Jaded Travellers View
From
The Broadband-Testing Labs Budget JetSet**

With the current security issues concerning our airlines again, Video3's Electern couldn't be more timely.

We did a several hour session using the software integrated with a many-to-many conferencing tool the company also sells, Marratech, across several sites in the UK and France, and it beat the wotsits out of sitting for hours at terminally depressing airports (pun intended) in the hope that you will finally board in a disorganised scrum and thereafter be offered 3rd rate food and drink at premier class prices on second-hand Boeings flown by learner pilots.

In short, it can be our saviour...

During a presentation, a delegate (viewer) can type questions or comments in the live chat area that appears in front of the presenter, so they are able to respond in real time. Should the presentation have been recorded and archived all of the questions and comments are stored on the Electern server and can be viewed by the presenter at a later date. In the questions section of the browser, pre-prepared multiple choice questions can be displayed for the delegates to answer.

These answers are recorded for the individual, marked, graded and collated in real time and are available for the presenter by the time they have finished the presentation.

OVERALL SUMMARY

We like the approach of Video3 with Electern.

From the conference delegate perspective it is all so simple – no client downloads – just point the browser, log-in, and off you go. And with the interactive elements such as the chat and Q&A being equally effective whether watching live or a canned presentation, the flexibility really has been well thought out.

We therefore agree with Video3's own assessment that it brings a truly new approach to Internet-based presentations and has a very broad market potential, from eLearning to traditional conference replacement. At the very least, for the latter, it gives a "live" conference a prolonged shelf life and massively larger audience if recorded then made available via Electern.

Equally, we were impressed by the efficiency of both the software and the delivery – this is not a service that requires much (if anything) in the way of housekeeping and maintenance, or even forward planning.

What this adds up to, then, is an affordable, high-quality, simple to use service that any company, education establishment or public body – or anyone with this requirement – can and should buy into. In short, Electern effectively lets you deliver a PowerPoint-style presentation with live video, interactive chat and Q&A sessions across the 'net. And it works really well. End of story...

For more information

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