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Introduction

Congratulations on your choice of the Webocaster software. We hope that you will find this manual useful for the software, and for setting up your webcasting equipment.



If you are an advanced computer user and want to get started as quickly as possible you can use the quickstart guide in this manual.

Webocaster is the heart of your streaming media system. It ties all components together and makes it possible for you to concentrate on production rather than technical configuration work.

Our software has been specifically designed to meet requirements of live streaming media where qualities like flexibility, ruggedness and backup possibilities are important.

Requirements

Web Server

- Minimum PC 1 GHz, 256 MB RAM, CD Player
- Web server IIS4 or IIS5 installed on a Microsoft NT/2000 platform

Production Computer

- Minimum PC 1 GHz, 256 MB RAM, Network connection DSL or faster
- Internet Explorer 5.5 or 6.0 installed. All 5 ActiveX settings enabled
- Powerpoint 2000 installed
- Windows Media Player 7.1
- Real One Player (if you intend to use Real Media)
- Quicktime (if you intend to use Quicktime)
- If you want to use Shockwave Flash in your presentations you need the Flash plug in
- If you want to use Excel documents in your presentation you need Microsoft Excel
- If you want to create custom layouts you will also need Photoshop ver 5 or higher and Winzip

Encoder Computer

- Minimum PC 1 GHz, 256 MB RAM, Network connection DSL or faster
- Windows compatible hardware and drivers installed (Please verify these with Windows Media Encoder)
- Windows Media Encoder 7 (Free software from Microsoft)
- Any Real Media Encoder software (if you intend to use Real Media)
- A Quicktime Encoder (if you intend to use Quicktime)

Viewer

- PC or Mac 1 GHz, 256 MB RAM (recommendation), DSL connection or better. (recommendation, a modem may receive low quality video/audio)
- Browser IE 5.0 or higher, Netscape 6.2 or higher
- Windows Media Player 7.1, Real One Player or Quicktime
- Flash, Excel, to be able to view those media formats

Installation

All parts of Webocaster are web based which means that you can run the system from any PC using a web browser. Please read system requirements before you install, some of the Webocaster features requires Internet Explorer to work. You install Webocaster onto a web server.

Before you install Webocaster, make sure you have the following prepared:

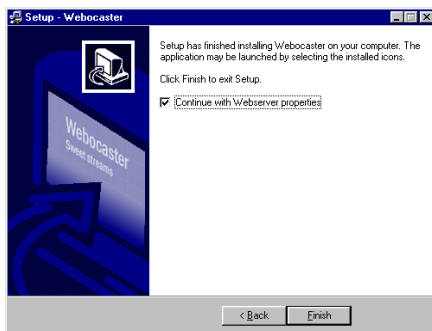
- Web server IIS4 or IIS5 installed on a Microsoft NT/2000 platform
- Minimum CPU 1 GHz, 256 MB RAM, CD Player
- The software license key
- 5 User names and passwords

1. Insert the CD and start the installation program.

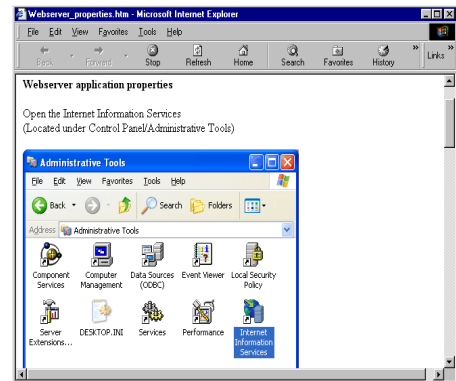


2. Follow the instructions to install the Webocaster files.

3. After installing the files please continue with the next step by clicking "Finish" in the installation wizard.



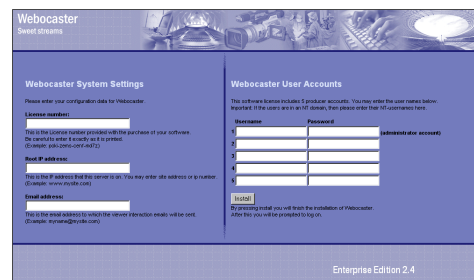
4. A html document describing the Web server properties will open automatically. (This document is also accessible in the Start Menu under the Webocaster group.)



5. Follow the instructions to set the web server application properties.

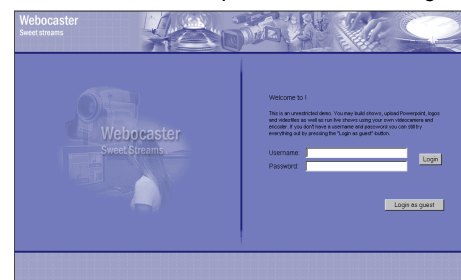
6. When you are done with the web server settings, please go back to the html document and click next at the bottom.

7. Webocaster will now start and the Webocaster setup page will open. (If you get an error page instead, then please go back and check the web server properties again)



8. Follow the instructions of the Webocaster account setup page. Then click Install.

9. Webocaster should now open the default login page.



Congratulations, you have now completed the installation!

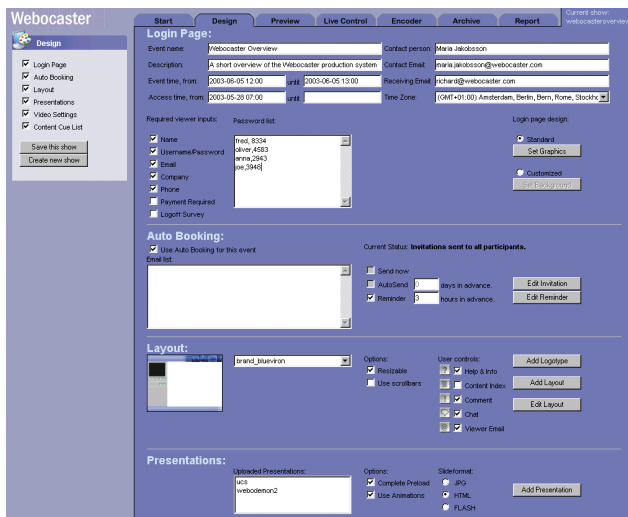
Quickstart guide

Webocaster creates dazzling live presentations that are viewed over internet using a browser. Your presentations combine live video with synchronized slides and audience interactions like email/chat feedback, voting or surveys. Your audience will not have to travel and spend nights at hotels, to experience your live show, whether it is a large conference, board meeting or a product release.

We will describe how Webocaster works in 3 simple steps:


1. Prepare the show

Just like preparing on stage events you may prepare your live web event with design, powerpoint slides and Q & A sessions. This is easily done on the Design page.



The Design page

This is where you create a new show, enter information about the event, select presentation layout, add powerpoint presentations and prepare security measures. If you know what you want, the whole preparation is a matter of minutes.



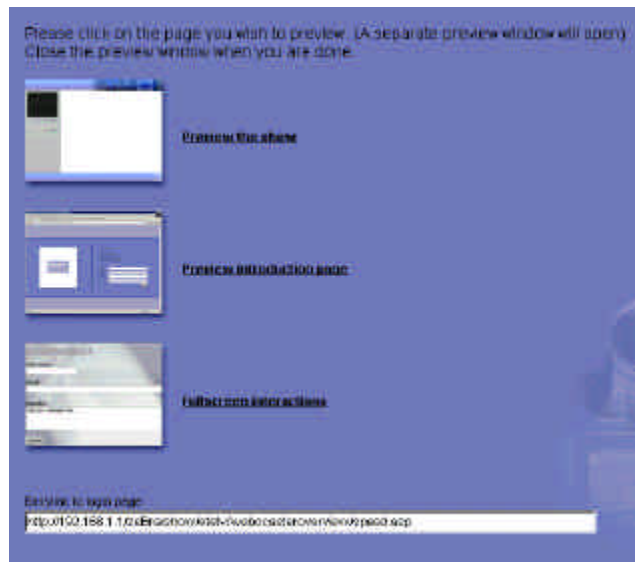
With Webocaster you can adjust the design properties at any time, even during a live broadcast!

Design options

- Login Page
- Auto Booking
- Layout
- Presentations
- Video settings
- Content Cue List

2. Preview the show


Before you publish your show you can preview the presentation and introduction page with full video and slide support. The preview is shown in a separate window, so you can quickly go back to the Edit page and make adjustments.



The preview page options

Preview options

- Preview the show
- Preview introduction page
- Preview full screen interaction



Since Webocaster is web based you can easily use several PCs to control, view presentations and show full screen audience interactions.

3. Control the show

This is the page you use to control your live show. From here you select presentation and control slide changes for it and your changes are transmitted to the viewer browsers.

You can also remote control the viewer browsers to show web pages, information text and let them interact through voting, surveys and email. You may shut down users or restart their presentation windows.



The Control page

Control options

- Update slides
- Prepared interactions
- Interactions on the fly
- Communication control
- Set stream latency

The viewer's browser normally preloads all slides before the show starts, so during the show they do not have to load images from the web server. This saves bandwidth.

Encoder control

The streaming of video/audio is done by a separate software called encoder. With webcaster you can remote control one or more encoders to send your show.



Encoder control surface

The encoder tab gives you a summary of the encoders status and alerts you of any errors.

Encoder agent options

- Start streaming
- Stop stream
- Record stream
- Stop recording
- Upload video file to streaming server



With Webcaster Enterprise Edition you can control groups of encoders with a single control.

Start



The start page

The start page lets you create new shows or select a previous show. For an existing show, several options are available:



Design

Adjust any show properties, upload or change slides, adjust streaming video sources etc.



Preview

Preview the show directly, skipping any login steps.



Live Control

Live control of your show. Opens your control window and invokes communication with all viewer clients.



Encoder

Open a full screen window that displays the current interaction as you control the show.



Archiving

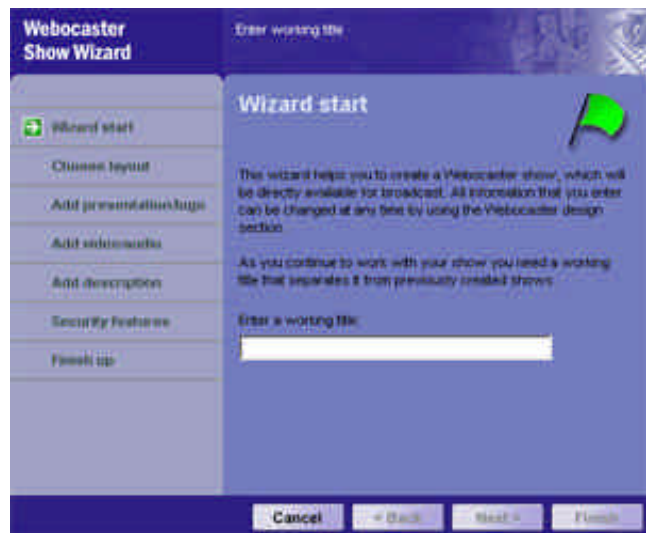
Open a full screen window that displays the current interaction as you control the show.



Report

User log and audience interaction reports. Report section can be extended by installing the plugin Webocaster Reports.

Create new presentation Wizard



Show wizard

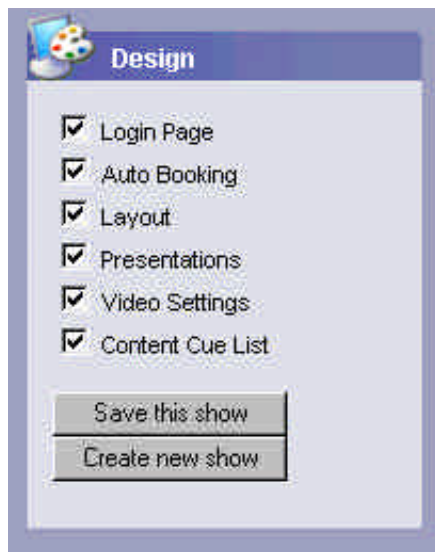
In Webocaster, go to the start page and choose "Create new show". The Webocaster Show Wizard will open and guide you through the show settings.

A folder with your show name will be created on the web server. The folder will contain all parts of your presentation and the folder name will be visible in the URL address to your show. So choose a descriptive name.

You can also use the Design page to create a new show from scratch.

Design

This page contains all settings for a show.



The design sections

Login Page

Event information is general information that is shown to your viewers in the login and introduction page.

The information you can supply is as follows:

Event description

Event name and description that will be shown to the viewer on the Login page.

Event time with defined time zones

Enter the event starting and ending time. Select the timezone where the event is/was recorded. The timezone is used for 4 functions:

- as information to the viewers who logon
- as reference for allowing viewer show access
- to schedule invitation emails
- to trigger Live Control start, when the show goes online

Access time

By setting access time you determine when viewers are allowed to log on. We recommend that you set the accesstime to 15 minutes before a live event starts so that the viewers have enough time to log on to the show. This is especially important if you are using preloading of slides.

The access time also sets the period during which an on demand show can be viewed. This is useful when you want to implement an expiration time to on demand material.

Access time affects all viewers of a show and cannot be set for individual viewers in the current program version.

Valid time format

When you enter event and access time, you have to use the correct format. To avoid misunderstanding Webocaster only accepts the ISO format year-month-date hour:minute:second. Example 2003-05-20 14:45:00. You may choose to omit seconds, minutes or hours.

You can leave the time field empty. By doing so you will disable time dependent invitation emails, live control start trigger and time information on the viewer login page. To allow viewers to log on at any time you may leave the access time empty.

Contact Email

This field should contain the email address to the contact person. You can expect this contact person to receive questions from viewers about logging on/system requirements in addition to questions about the event itself.

Receiving email

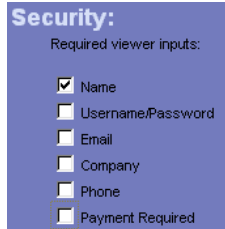
When you use the interaction "Email", this field should contain an email address to which viewer emails are sent as when they are watching the event.



Be sure to inform the contact person of her role. Even if she only handles event specifics, it is likely that some viewers will contact her for technical help. On the login page, Webocaster includes down-to-earth information on how to ensure video support. It is a good idea for the contact person to be able to guide viewers to the information.

Security

You have the option to ask your viewers for a name and password before they can watch the show. Choose between the following security/information options:



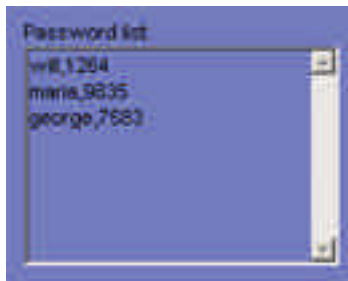
Login page options

Open show

Leave all options unchecked. The introduction page will not require any feedback from your users.

Check login and password

Select Username/Password. This will make a password list appear.



Password list

If your show is intended for a specific set of people, you can set up individual user names and passwords for the show. We have designed this to be very easy to use.

How to add multiple passwords:

1. Write a list of user names and passwords, separated with a comma. Put one user name and password on each row.
2. Copy the list and paste it into the Webocaster password box.
3. When you save your show, the password list will be applied.

(Password information is stored encrypted)

When using the Auto Booking function, Webocaster will generate passwords for the invited viewers.

Require additional viewer info

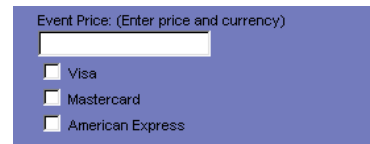
Check the fields you want the user to fill out before she may watch the show. Webocaster allows you to select what information you require your viewers to add.



Ask only for user information that you really need to have! Most people are reluctant to give out email, because they want to avoid unsolicited mail. As general rule you should not expect your viewers to enter any information that you wouldn't.

Require Payment

In the viewers login page you can define a price and require the viewer to enter payment information before he/she is allowed to view the show. The payment information is collected in the user log and can be viewed and printed from the report page.



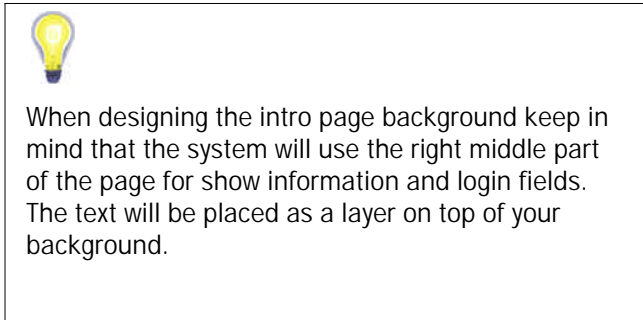
To use this, check Payment Required. To the right you can enter a price for the event and select the credit cards that you want to support.



You, as being the provider of your events, have the sole responsibility to collect your payment fees. Webocaster just acts as a tool to log payment information as provided by the viewers. No steps are taken in ensuring that credit card numbers, expire dates or names are valid.

Customized login page layout

You can customize the intro/login page either by adding a logotype or by designing a fullscreen sized layout using a graphics program like Photoshop. By selecting "Set Background" you can upload a background image, which may be in the formats JPG or GIF. If you upload images in both formats then the GIF will be shown to the user.



Standard login page layout

The standard login page can be customized with logotype graphics. The graphic is placed and centered in a predesignated region to the left of the show information/login fields. This is a convenient function for adding logotypes to your show.

By selecting "Set Graphics" you can upload an image (GIF,JPG) or a flash movie (SWF). If you upload images in several formats then the flash will be shown to the user. If you have added flash to the intro page and the viewer does not have flash installed, the browser will normally open a dialog window offering download of the flash plugin.

Autobooking

The autobooking function allows you to schedule viewers to your show and have the system send out invitations to them. To use it you must enter an event time in the Login Page section.

Setting up autobooking for your show

Check "Use Auto Booking for this event" and press save.



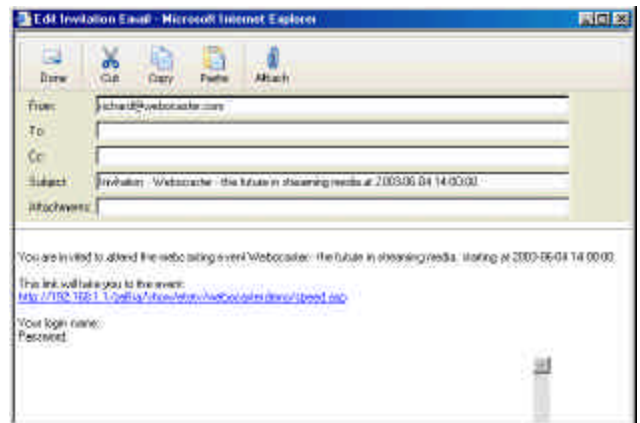
The Autobooking section

Email list

Add your participants emails in the email list, separated with commas. You don't have to add all now, you can add more to the list later.

Edit an invitation email

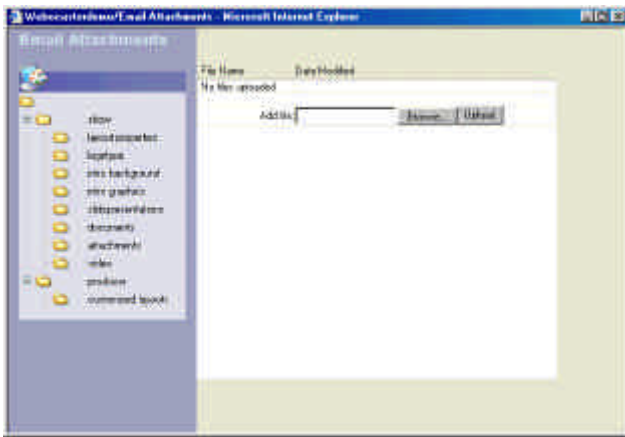
Press the button "Edit Invitation". This opens up an email edit window (somewhat resembling MS Outlook).



Email edit window

The email has added a default Subject containing your event name and time. You can change the subject line to whatever you want, just keep in mind that when you use your own subject line, you probably need to adjust it yourself if the event time is changed at a later time.

The upper part of the mail message is predefined by Webocaster to contain event name, event time, URL to the event, and an individual user login and password that is generated by the system for each viewer. The bottom part of the email is free for you to edit, adding whatever details about the show that your viewers need to know. You can add attachments to the invitation email by clicking the attachment button.



Upload manager page Email attachments

When you are done editing the email, click the "Done" button and the email will save and close.

Edit a reminder email

The reminder email is optional and you only need to edit it, if you plan to use it. This mail works as short reminder and does not support attachments.

Scheduling emails

You can schedule invitation emails to be sent a number of days before the event starts by using the "Autosend" option. When setting this time, keep in mind that once the invitation has been sent it will be hard to change the event time although it is possible to resend new invitations.

You have the option to immediately send out invitations by using the "Send Now" option. The emails will be sent when you press "Save".

Reminder email can be set to fire a number of hours before the event, using the "Reminder" option.

Modifying the eventtime

When you modify the eventtime you may affect the autobooking function. If the eventtime is moved to an earlier time, the "Autosend" option might be set so that invitations emails already should have been sent. In that case the emails will be sent immediately after you save your settings.

If the eventtime is moved to a later time then, the mail will also be scheduled later by the same amount. If emails already have been sent, then of course your viewers will not know about your time change. In this case you might want to consider resending them new invitation by using the "Send Now" option.

Modifying participant list

As long as emails have not been sent, you can edit the email list to add/remove any participants.

If the invitations have already been sent and you want to add more participants, then add them to the list and press save. Webocaster should respond with the status "Invitations sent. New participants added." At this point you may use the option "Send invitation to new participants" to send emails to the newly added participants.

Removing a participant is trouble free as long as no invitations have been sent.

After invitations have been sent it is still possible to remove participants, but keep in mind that the removed viewer has previously received a password, and that this password now becomes invalid. If/when the viewer tries to log on he/she will be informed that the logon is no longer on the participant list.

Current status

The status indicator tells you what the current autobooking status is. The following situations are correctly handled by Autobooking.

- Autobooking is off.
- Nothing sent.
- Invitations sent to all participants.
- Invitations sent. New participants added.
- Invitations sent. Event time changed since.
- Reminder sent to all participants.
- Reminder sent. New participants added.
- Reminder sent. Event time changed since.
- Event has started.
- Event has started. Some participants did not get email invitations.
- Event has started. Participants were not informed on the event time change.
- Event has started. No invitations were sent.
- Event has ended.
- Event has ended. Some participants did not get email invitations.

Layout

The layout communicates the nature of your message. If you are broadcasting a flashy marketing event you can use a colorful and living design. If you are broadcasting a board meeting, then you can use an appropriate serious design. Webocaster has 100 predefined layouts and you can add any number of customized layouts to the system.



The Layout section

After selecting a design, always preview it with the appropriate slides.



Try to use the same theme throughout the show. If you are designing powerpoint slides then it is a good idea to use same style and color scheme as the presentation interface you select.

Using resizable layouts

In the layout section you can choose to use Resizable layouts. This will make the viewers presentation fully resizable which is useful if the viewer has a very large or very small screen. Some of the layouts are not resizable, because they would look ugly if they were scaled. When the viewer resizes a window by pulling its corner, the whole presentation including video, interaction and slide are scaled proportionally.






If you want your presentation to have a fixed size, then you should uncheck this alternative. Netscape is not able to resize loaded images, so Netscape viewers will always have fixed size presentation.



Use the Resizable option to make your presentations support multiple screen formats like 800x600, 640x480 and large screens. (The default presentation size is 1024x768)

Optional viewer controls

You can add optional viewer controls to the interaction region of the show window. The following options are available:

-  Help & Info
-  Content Index
-  Comment
-  Chat
-  Viewer Email

Help & Info

Uses the interaction region to show help and information about the show. You set this information using the interaction "InfoURL". If you don't set it, it will contain default information on your show.

Content Index

During on demand shows this option will display the content index. You need to provide Chapter indexes in your show otherwise this list will be empty. This option is only aimed for on demand shows. (Using it during a live show will simply display an empty list)

Comment

This option lets the viewers comment freely during the show (like as if they were sitting in the same room). The comments are shown as rolling text in the bottom of all the viewers windows. The function is aimed for small audiences and there is no moderation function applied to it.

Chat

This option lets the viewers open a chat discussion at will (like as if they were having a discussion during the event). The function is aimed for small audiences and there is no moderation function applied to it.

Viewer Email

This option lets the viewer send an email to the speaker at anytime during the show. The email is sent to the address enter in "Receiving Email" in the Design page.

Adding a logotype

You can upload a logotype to the show page. This is useful when you want to customize the show for a particular customer or event.

To add a logotype, select the destination with the combo box, then press the upload button and open the corresponding GIF/JPG file. The placement of the logotype is predefined by the layout you have chosen. In a customized layout you can change the position of the logotype using Edit Coordinates.

You may improve your logotype graphics further by adapting its background and size to the layout. We recommend that you use a tool like Photoshop or Paint Shop Pro to do this.

Logotype dimensions

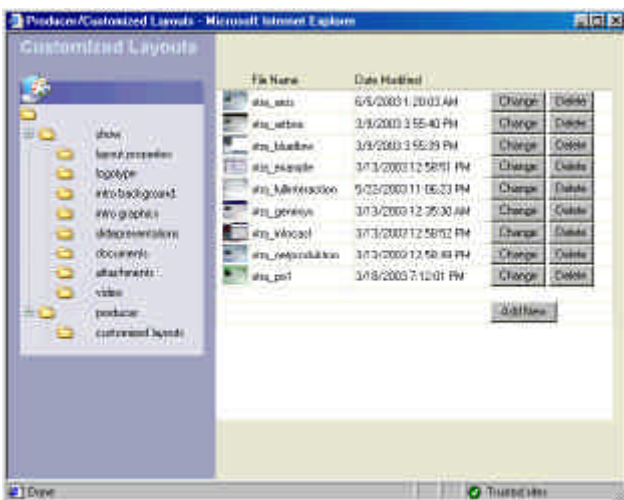
Show logo dimensions should have dimensions less than 300 x 60 pixels.

Customized layouts

Webocaster Enterprise Edition features support for customizing layouts. The customization process is designed so that it is possible to create custom layouts without doing any programming whatsoever.

Private layout set

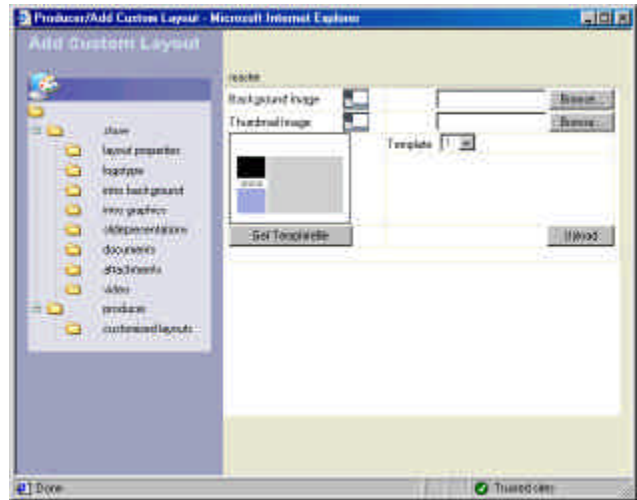
Each user account can have a private set of customized layouts. You add layouts from the design page by clicking "Add Layout". This opens up an upload manager and displays the current list of layouts. In this screen you can add new layouts, delete layouts and change properties of a customized layout.



Upload manager page Customized Layouts

Add new layout

To add a layout press the "Add New" button. This will open the upload manager page Producer/Add Custom Layout



Upload manager page Add Custom Layout

Template files

On this page you can choose a basic Photoshop template to build your layout from. All templates have prepared coordinates for video, slide and interaction regions, so that you may concentrate on graphical design rather than programming.

1. Choose

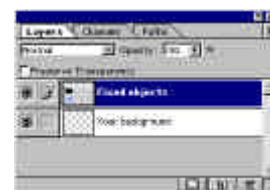
Select a template and click "Get Templatefile" to download a zip file containing the Photoshop file. The predefined template files are numbered. This is important, because you will use this number when you upload your customized image, so that Webocaster will use correct coordinates for video, slide and interaction.

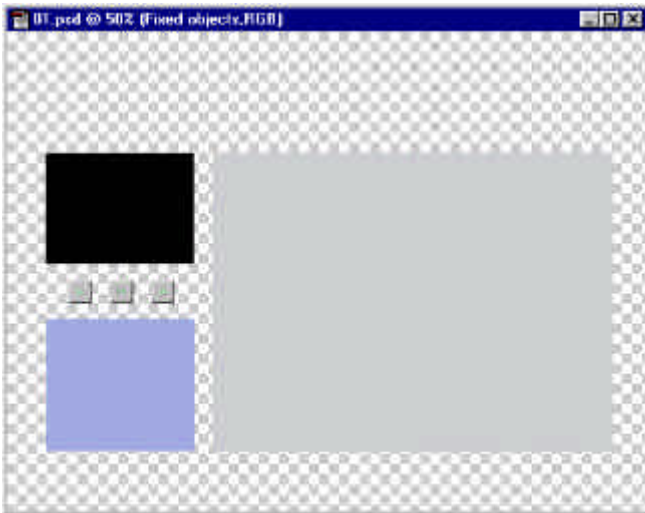
2. Open

Once downloaded, unzip the template file with Winzip and use Photoshop to create your design. (Always work with one layout at a time to avoid any confusion.)

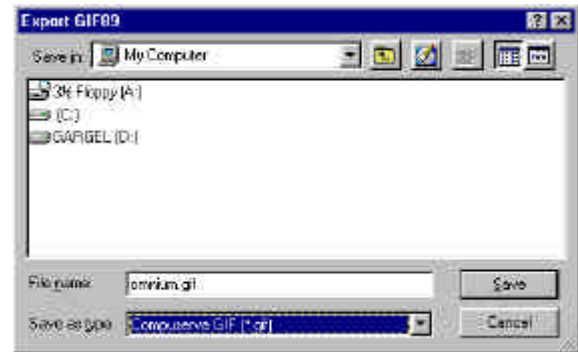
3. Work in Photoshop

The templates have its active regions marked in a separate layer, so that you may preview the final result while editing in Photoshop.





When you are done, hide the "Fixed Objects" layer, and use Photoshop File/Export to GIF, to output your layout as a GIF file. Choose a descriptive name, as this will be your reference within Webocaster later. Please use only alphanumeric characters in the filename (avoid blanks). Then preview your saved GIF and make sure that it looks fine.



5. Create thumbnail

Make sure that you have saved your original. Then save a copy named "adminthumb.psd". Change image size to exactly 120x90 pixels and export this small image as GIF, named "adminthumb.gif". This image will serve as your visual layout reference in Webocaster.



Free design

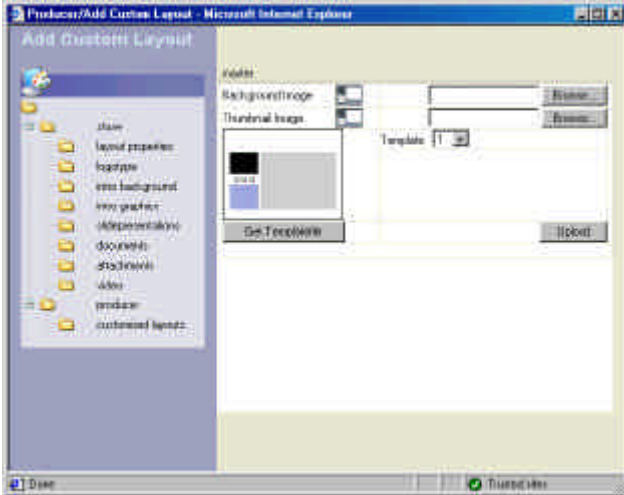
The templates only serve as quick starts for your design. You may also design your layout from scratch in your favorite graphics program. The regions for slide, video etc may be sized and positioned anywhere you want.

If you prefer to design your layout from scratch then you can skip steps 1 to 3.

4. Export as GIF

6. Install your layout

In Webocaster, go back to the Producer/Add Custom Layout page (the page with the templates). You will now upload your both files to the system.



Upload manager page Producer/Add Custom Layout

First select "template number" using the dropdown. Select the template that you initially downloaded. If you haven't based your layout on any predefined template, then select template 12 - Free design.

At "Background Image" press browse and select your large layout GIF file. (not the PSD file!)

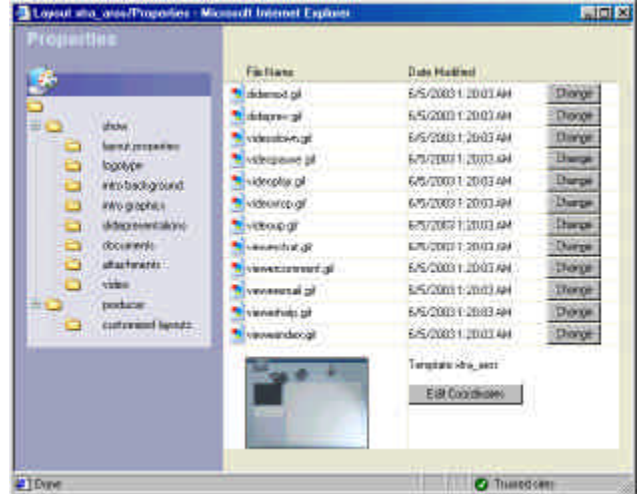
Do the same procedure for "Thumbnail Image". Then press "Upload".



You may repeat the upload process and replace a layout with one that has the same name. You can however not delete a layout.

Adding customized buttons to your layout

From Producer/Customized Layouts you access the buttons by clicking "Change" on the layout you want to modify. This will show you the page Layout/Properties where you can select and change an individual button.



Upload manager page Layout/Properties

Each button uses 3 images, which are used when the cursor moves over a button and when the button is being pushed down. The button images are in format GIF and you may design these buttons in any graphics program, for example Photoshop.

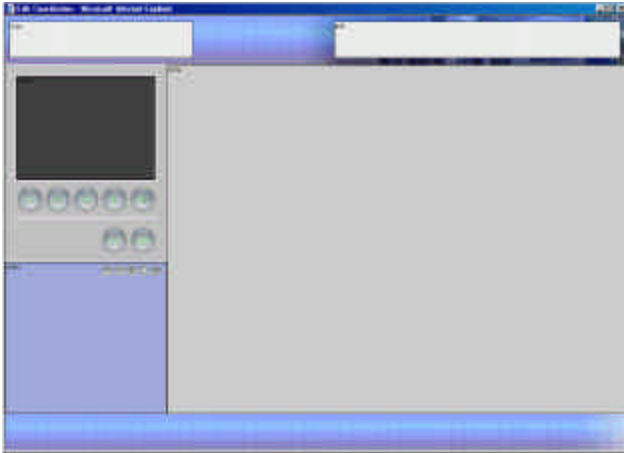


When designing buttons it is smart to use the same Photoshop file as your background image. You can make sure that your buttons look good on your background and that anti aliasing effects use the correct background colors.

Your customized layout will be referenced with the prefix "xtra_" and the name you used for your large GIF file. This makes it easy for you to distinguish your customized layouts in the Design page.

Modifying coordinate properties

You can use the built in WYSIWYG editor to move and scale regions in your layout. You can for example adjust the position of a logotype or advertisement region. You access the property editor from the design page by selecting "Edit coordinates" for the currently selected layout. (The button is also accessible from the Layout/Properties page)



WYSIWYG Edit coordinates editor

The editor shows you the layout in fullscreen as it will be shown to the viewer. The regions for slide, video, interaction, logotype and ads are placed as layers on top of the background image.

Modifying regions

To move a region use the mouse and drag it (click and hold down the mouse button while moving the mouse).

To resize a region position the cursor at the lower right corner. The cursor changes to a resize cursor to indicate the function. Then click and drag the mouse to the wanted size.



Avoid moving the mouse fast while moving/resizing. If you drag too fast the cursor ends up outside a region and the object stops moving/resizing. However, if you move the mouse back while it is still down, the object will catch up again.

The background works as a fixed reference when editing coordinates. It is always displayed in full size, although it is resizable when using it in a show. The background image cannot be changed in the edit window, to do that you need to upload the layout again from the Producer/Add custom layout page.

Buttons may be moved but cannot be resized. You can

change the button images in the edit window by right clicking a button and selecting properties.

Viewer buttons

The viewer buttons can be placed just like other buttons. If you however place a viewer button inside of the interaction region then during runtime, their position will be adjusted to form a neat row in the right upper corner of the interaction region. This ensures that the layout looks neat and proper when only some of the viewer buttons are activated.

Hiding regions/buttons

Right click and select "Hide" if you want to hide a button or region. To show them again, right-click the background and select "Show" for the button/region you want to make visible.

Saving changes

When you are done editing in the WYSIWYG editor, right click the background and select "Save". This will save your changes to your layout. If you do not want to save your changes, then close the window without selecting Save.

Graphic size recommendations

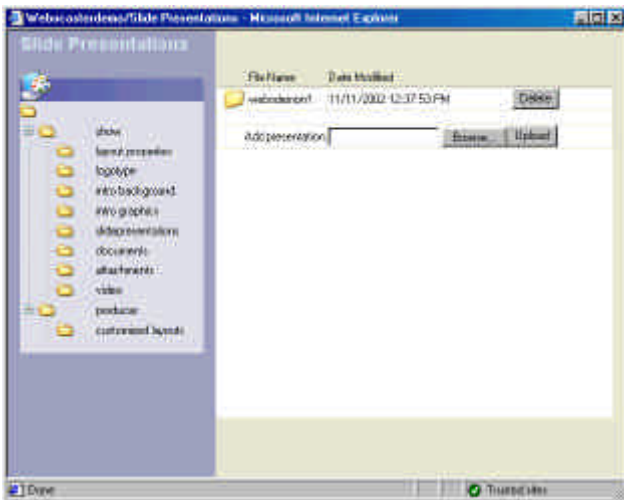
Background image	1016 x 713 pixels
Advertisement	468 x 60 pixels
Logotype	300 x 60 pixels
Video	240 x 180 pixels
Slide	640 x 480 pixels
Interaction	230 x 210 pixels
Button	46 x 46 pixels
Viewerbutton	20 x 20 pixels

Presentations

You can add multiple powerpoint presentations to your show. Set descriptive filenames on your powerpoint files before adding it to your show. Each presentation will be presented with its original filename.

Adding a presentation

To add a powerpoint presentation press the "Add Presentation" button. This will open the upload manager page Slide Presentations and show you a list of currently uploaded presentation and the upload dates.



Upload manager page Slide Presentations

Click browse to select and upload a new Powerpoint presentation. The powerpoint will be converted and uploaded to JPG and HTML format. You can add multiple powerpoint presentations to your show. (You need to have Powerpoint 2000 or later installed on your computer)

Deleting a presentation

To delete a presentation open the upload manager page Slide Presentations and click on the "Delete" button for the presentation you want to delete.

Replacing a presentation

To replace a previous presentation, simply upload it again. As long as the presentation has the same name, the old version will be replaced.

To replace or adjust powerpoint slides in your show, simply make your changes in the powerpoint file and upload it again. As long as you use the same filename, the new file will overwrite previous slides.

Slide formats JPG/HTML

In the design page you can choose between the formats JPG and HTML for the powerpoint presentation. (Presentations are converted into both formats upon upload.) JPG slides loads and displays faster but have a lower resolution than HTML. JPG is preferred when your viewers have dial up/modem connection.

HTML has several advantages. The slides are in high resolution, and always display crisp and clear, even when displaying detailed tables and small typefaces. HTML slides scale better, and allows you to use transitions and animations in the presentation.



Sometimes the webserver may not allow you to delete the presentation immediately. This can happen if the presentation was recently accessed by you or a viewer. It is due to the cache technique used by the IIS software. If this happens, then wait and delete it later.

Complete preload

This option tells the viewer client to load all slides before starting the video. Preloading slides allows for much quicker slide changes during the show and saves bandwidth. It is preferred when your viewers have slow/dial up connection because it leaves more bandwidth available for the video/audio. The drawback is that the viewer needs to wait in the beginning of the show.



Time limits: Maximum preloading time is limited to 4 minutes after which the show will start even if slides are not fully downloaded. Preload is also skipped if download gets too slow where an individual slide takes longer than 20 seconds to download.

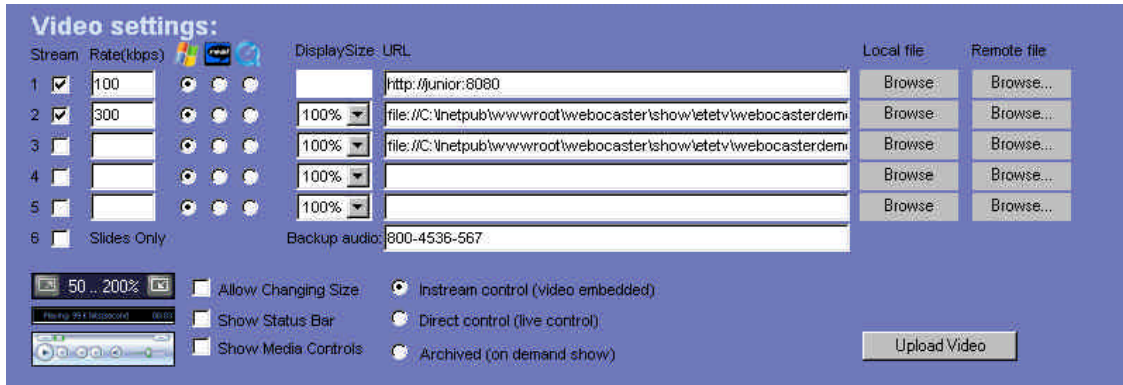
If you uncheck complete preload, then the video will connect immediately and the show will start faster. The slides will still preload, but this now happens in the background. It uses more of the available bandwidth and on a slow/dial up connection this may affect video/audio quality.

Using animations

Powerpoint allows slides to use animations. If you want to retain and use these, you select "Use Animations" and "HTML" format. You can use animations in both live and on demand shows. On the live control page there is a special button to fire an animation, while on demand Archive page offers a dedicated interaction for this.

If you uncheck "Use Animations" then all the content of a slide will be displayed at once. Transitions will however still be displayed. To remove both transitions and animations, you need to use Powerpoint to edit the presentation settings.

Video Settings



Video/Audio stream sources

With Webocaster you can use up to five simultaneous video/audio streams. This is useful if you want to support several different bandwidths. Each stream will present the viewer with a separate bandwidth choice in the login page. You will need to match that bitrate in your encoder settings.

To configure a video source, select its check box and enter the stream URL. If you are supplying backup audio for audience with very little bandwidth, then you may fill in a phone number for it.

Table. Examples of streaming sources

Live streaming from an encoder using IP and PORT number	http://123.45.123.12:8080
Playback streaming from a Windows Media file	mms://win.playstream.com/mediacompany/domagic02.wma
Playback streaming using advanced streaming format	http://www.X35site.com/media/boardshow0211.asf

Browse for Local video file

Use the Local Browse button to find and use a video file on your computer/network. When using a local file, the "file://" protocol is used. This means that only viewers with the file access to that video file will be able to watch the show. In addition the file is not streamed using a streaming server, but instead accessed directly over the network. Using local file access is usually faster so you may use it while editing an on demand show, and when you are finished simply change it to http:// or mms:// access.

Show Control methods

The show control methods affect how slide synchronization interacts with the video stream. For a live event you can choose between "Instream" and "Direct", while archived shows should be set to method "Archived".

Instream control

Instream scripting uses the video stream to send slide and interaction changes. Exact synchronization is guaranteed and archiving is easier.

Not all formats and OS platforms support Instream scripting. See Appendix B, Compatibility for details.

Direct control

Direct scripting is a direct control of your clients which works with or without a video stream. It is the most compatible method and works with most players and browsers.

When using Direct scripting, exact slide synchronization with video is not guaranteed. You need to input a delay time to allow for the clients video buffering time so that the viewers slide changes happen at the right moment. Normally the delay is about 15-25 seconds. This is the time it takes between your video input signal into your encoder and displaying the same video frame to the viewer. Webocaster features individual delay settings for different stream bit rates and you may adjust them at any time, even during your show.

Archived (On demand)

When using archived control all the events are transmitted to the clients when the presentation is loaded. The clients uses the video file time stamp to synchronize with exact precision and no further communication with the web server is therefore needed. Archived control only works with an archived video file.

Content Cue List



Audience interaction options

Preparing documents

In addition to preparing slides for a show, you can prepare other type of documents to be shown in the slide region. Webocaster supports the display of Word, Excel, PDF, webpages, images (GIF,JPG,PNG), Flash and ODBC database queries.

Preparing interactions

All audience interactions may be prepared beforehand, so that you can have all information text, questions and pictures ready to send at the right moment in your show.

- Select the interaction you want to prepare.
- Fill in the text or URL associated with the interaction.
- Click the Add button. The new interaction is added to the list of prepared interactions.

To delete an interaction from the list, select it and press Delete. To change an already saved interaction, delete it first, and then add a new with the changes you want.

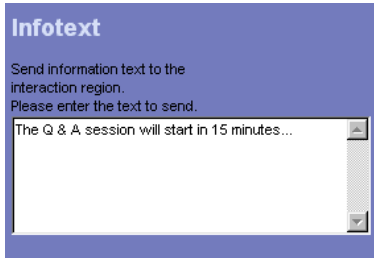
You can change the order of the interaction list by selecting an item and moving it up or down using the buttons up/down.

Chapter

Chapter Indexing is available for on demand shows. Using this you can index the show and allow the viewer to jump between the chapters. If your show is long then indexing is highly recommended. Using the content cue list you can predefine Chapter titles that you use in the Archive page to insert at the proper timepoints.

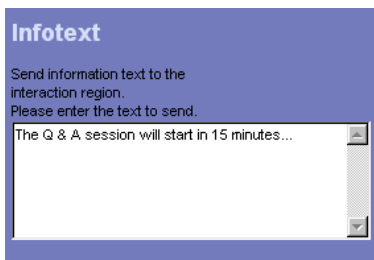
Infotext

To send an information text to your audience, select "Infotext", write the text in the input field. The text will be shown to your viewers in the interaction region.



InfoURL

Using this interaction you can set the interaction region to show any html information. You set the content by providing an URL to a customized webpage that contains the information you want to display. The content of this region can be changed anytime during the show. If you leave the URL empty then a default infotext will be shown.



Email

You can let your viewers ask questions or give you feedback through email. The email form will be displayed to the viewer in the interaction region. Since Webocaster handles the email, your viewers do not need to have any email program installed on their machine. The email account is configured on page Start/System Settings and is accessible from the administrator account.

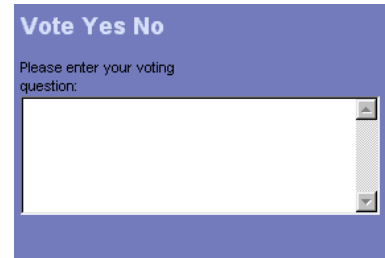
Chat

You can let your audience discuss, ask questions and give you immediate feedback through the chat interface. Since Webocaster handles the chat, your viewers do not need to have any chat software installed on their machine. The chat region is updated when a user clicks Submit.

Vote Yes/No

Voting allows your audience to vote Yes or No to a question that you show them in the viewer window.

Choose "Vote Yes/No". Write a question in the input field and press the "Add" button.



Remember that when you send this interaction during a show it will clear any previous voting results.

When you, during your show, decide that voting is done, you can feed back the voting result to your audience. To do this, select "Vote result text" or "Vote result graph" and press Send.

Vote result text

This will send the result from a Yes/No voting session. When you decide that voting is done, you can show the voting result to your audience. The voting result will be shown in a textual form.

Vote Multiple

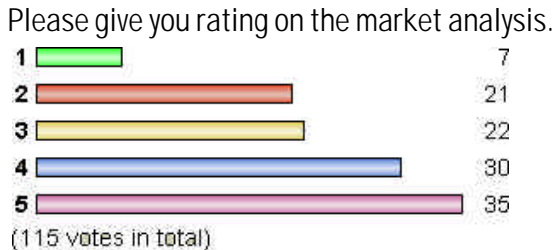
Audience survey allows your audience to give their rating to a specific question that you show them in the viewer window.

Choose "Vote Multiple", write a question in the input field and the answer options for the question. You can have up to six options for every question, but you only use the number you need. The options you leave blank will not appear for the viewers.

Any previous voting/rating results will be cleared when you send this interaction.

Vote result graph

This will send the result from a vote/survey. When you decide that rating is done, you can show the rating result to your audience. The rating result will be shown as a chart.

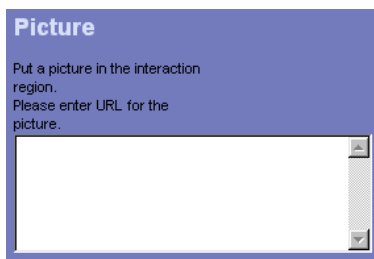


Vote percent graph

This will send the result from a survey but show the result as percentages instead of actual votes. The rating result is shown as a chart.

Picture

Use this to place a picture in the interaction region. Select "Picture" and write the URL to your image in the input field. You can also press the "Add Document" button and browse for a file. The image will be scaled proportionally to fit the width of the viewer's interaction window.



Advertisement

This interaction allows you to display advertisements or a loop of advertisements that switch every 30 seconds. The advertisements are normally in the standard banner size 468 x 60 pixels. You refer to the advertisements using URLs or text separated by commas. To hide advertisements you send an empty advertisement interaction.

Comment

You can let your audience comment the show freely. Comments from participants are broadcasted as a rolling text at the bottom of all the viewer show windows. By sending this interaction you open the comment window to the audience. By adding a text to the interaction, the producer can also send comments.

Document formats

Animate Slide

This on-demand interaction will cause a current Powerpoint slide to advance to the next animation. This is only used in conjunction with HTML slides and the option Use Animations checked.

HTML

You can select any web page and show it to your audience. The html pages must be accessible over the web.

Select "HTML", write the URL to your web page in the input field. The web page is fit into the viewer slide region and will not be scaled.



To simulate browsing for your viewers, you can prepare several HTML interactions in a row. Do this by browsing yourself and for each page you copy the URL from the address field and paste into Webocaster as a new interaction.

Flash

You can display a Shockwave Flash file (.swf) in the viewers slide window. This is a very common way of displaying multimedia pages on the internet. The Flash file has to be accessible over the Web.

Select "Flash", write the URL to your Flash file in the input field. The Flash page is shown in the viewer slide region and will be scaled if the Flash file allows it.



You can use Flash to extend the functionality of the Webocaster. With Flash you can design entire programs and run them in the Webocaster interface.

NOTE: Flash requires the viewer to have the Shockwave plug in installed. If the viewer does not have it he/she will be prompted to download the plug in.

Excel

You can display an Excel file in the viewers slide window. The actual file will be transmitted to the viewer and opened as an Excel application within the slide window. All Excel functionality is available to the viewer. This is a useful way of showing detailed figures to your audience. The Excel file has to be accessible over the Web.

Select "Excel", write the URL to your Excel file in the input field. The Excel page is shown in the viewer slide region and will not be scaled.

NOTE: Excel requires the viewer to have Microsoft Excel installed on his computer. If the viewer does not have Excel he/she will be prompted to Save the Excel file.



Downloading and starting an Excel file can be a lengthy process. Depending on the size of the Excel file and the viewers connection this process can take from seconds to several minutes. When using this interaction, be sure to test your presentations under the worst conditions that your viewers might have.

Word

You can display a Word file in the viewers slide window. The actual file will be transmitted to the viewer and opened as an Word application within the slide window. This is a useful way of showing detailed figures to your audience. The Word file has to be accessible over the Web.

NOTE: Word requires the viewer to have Microsoft Word installed on his computer. If the viewer does not have Word he/she will be prompted to Save the Word file.

PDF

You can display a PDF file in the viewers slide window. The actual file will be transmitted to the viewer and opened using the Acrobat application within the slide window.

Image

You can display a images in the viewers slide window. The images may use the formats GIF, JPG or PNG.

Database

This interaction allows Webocaster to interface directly with a database and present a database query result in an elegant presentation table. The table will be shown in the viewer slide window.

The results are always produced in real time, so that viewers will always get up to date information presented. You can use this feature to produce advanced database reporting presentations.

Although writing a database query requires some background knowledge, the interface has been designed to allow maximum ease and flexibility. Select Database by entering its ODBC name, user name, password and a valid SQL SELECT query.

The ODBC name (Open DataBase Connectivity), has to be defined on the web server computer. ODBC sources are accessed through the Control Panel and are quite easy to set up. The database itself may be located anywhere and be of any brand (Oracle, Sybase, SQL Server, DBASE, Access etc..) as long as you have a valid ODBC connection to it.

If your database connection or SQL query produces an error, then this error will be presented in the viewer slide window.



Avoid queries that have long execution times. Remember that each viewer will run their own instance of the query, so the workload on the database server may become significant.

Open URL

Unlike the HTML interaction, the Open URL opens a separate window to show your selected web page. This is useful if you want to refer to another web page temporarily and still keep the presentation running in the background. You can select any web page and show it to your audience.

Select "Open URL", write the URL to your web page in the input field. The web page is opened as a new separate window.



Although the new window could cover parts of the presentation window, your viewer will still hear the presentation audio. When the viewer wants to return to the presentation he/she may simply close the web window.

Preview



Preview options

Preview the show

At any time in the Webocaster program you can choose to preview your show. The preview opens in a separate window, so you can still switch back to the view you have. When you are done you can close the preview window.

For even better viewing, open the preview on a separate computer (or separate screen if you have one). That way you can use one computer to control, and the other to view what the audience will see.

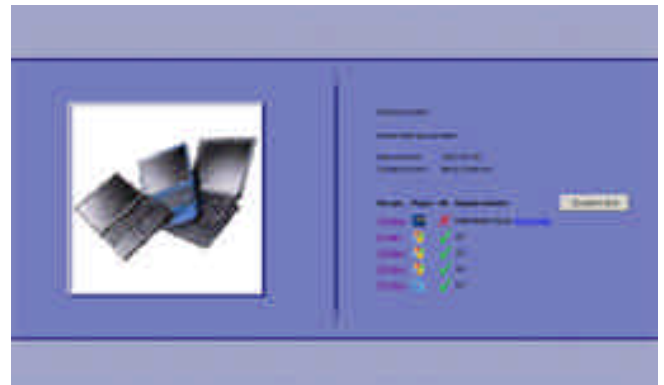
Preview login and introduction page

The Webocaster features a configurable introduction page. The page shows the name of the show and your choice of input fields. To preview this page, go to the preview section and choose introduction page.



Login page

After login an introduction page is shown, where the viewer may choose one of your predefined streams.



Introduction page


Viewer hardware/driver test page

As the viewer logs on to your show, Webocaster does a background system check on the viewers technical capabilities. This is validated against the show features to produce an OK/NOT OK status for each video stream.



The test includes validation of streaming video formats, operating system, screen size, browser type, version, HTML slide compatibility and communication control.

If the viewer has insufficient capabilities for a specific stream then this is marked as a NOT OK symbol with a comment on what is needed. If the viewer needs a software upgrade of the browser or video player, a link to download it is displayed.



The viewer may also check exactly what is installed by pressing button "System Test". If the viewer has insufficient hardware/software to view any of the streams the system table will show which part that needs to be fixed.

The testpage checks for Platform, Browser version, Screen size, installed players, and if the client has document support for Word, Excel, Flash or PDF.

Preview full screen interaction



Full screen interaction page

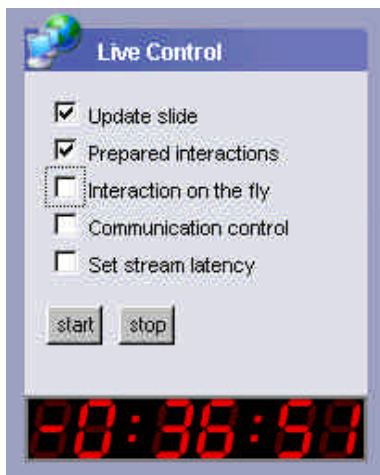
When using interactions like voting or Q & A, you usually want to involve the audience in the room as well as your web audience. For this purpose, Webocaster features a separate full screen layout displaying the current interaction. Using this, you can set up interactions for large screen projection for the benefit of your local audience.

To start the full screen interaction page, go to the preview section and choose interaction display.

Easylink

The preview page features an easylink that you can copy and paste into an email to your viewers. This link references the login page.

Live Control



Control options

Click the Live Control tab to go to the control page. The control page is where you control your live show. From here you can see viewer status as more and more viewers log on to see the show. You can select presentations and set slides, control interactions and restart your viewer's browser.

Update slide

The most common use of the control window is to switch slides. In Webocaster you can use several presentations per show. You select a presentation in the top right part of the control window. To send a slide you click on its thumbnail picture.



Slide window

The current slide shows your selection and the viewers receive the slide event synchronized with the video.

Prepared interactions

To send prepared interactions please check "Prepared Interactions" in the upper left menu. A list of your prepared interactions for your show is displayed.

To send an interaction, select it from the list and press Send. After the interaction has been sent the next row in the list is automatically selected, so that next time you only need to press the "Send" button.

Interactions on the fly

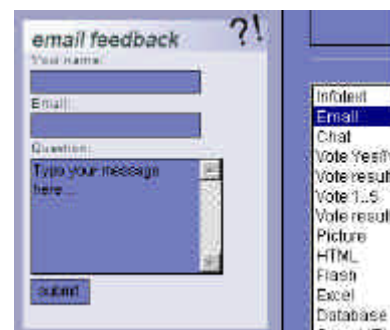
You can also send interactions on the fly from the control window. Select the interaction, fill in the appropriate information and click Send. For detailed information about the available interactions, please read the Design/Prepared Interactions section of this manual.



Interaction example

Current interaction view

In the left lower corner the current interaction is shown to help you keep track of what the viewer sees. During a voting session, this region shows the voting progress, so that you can follow the voting result as the votes are flowing in.



The interaction view is not active with the exception for chat, where the producer may participate in the current chat discussion.

Communication control

User status

The user status is a part of the control window that tells you how many users that you have connected. You can go a step further to list individual viewer information under the Report section.

Restart the show

In a situation where you already have viewers logged on, you might want to make changes to your show. For example you might want to change the video stream.



Communication control

Webocaster allows you to remote control all logged on viewers to reload their web page, which will reconnect their video according to your new settings. To do this you select Communication Control and press the Restart button.

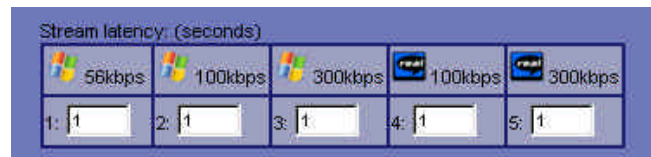


The Restart command is spread out randomly to your viewers over a 20 second period. This avoids an overload situation for the streaming server, but it also means that you have to wait at least 20 seconds before you issue new commands to your clients. Any commands issued before that will not reach all your clients.

Abort all users

Webocaster allows you to remotely close down all logged on viewers. This will close down the presentation window and show the introduction page. To do this, select Communication Control and click the button "Abort all". This is useful if your network has a congestion problem.

Set stream latency



Set stream latency

When using Direct scripting, exact slide synchronization with video is not guaranteed. You need to input a delay time to allow for the clients video buffering time so that the viewers slide changes happen at the right moment. Normally the delay is about 15-25 seconds. This is the time it takes between your video input signal into your encoder and displaying the same video frame to the viewer. Webocaster features individual delay settings for different stream bit rates and you may adjust them at any time, even during your show.

Encoder

On the Encoder page you have a collective view of all your encoders.

Stream	Encoder control	Assigned encoder	Program status
1	100	---	OFF
2	50	---	OFF
3	100	---	OFF
4	300	---	OFF
5	300	---	OFF

Encoder group table

This table shows you the streams that you have configured for you show and as you start the encoders you will see their IP addresses and an indicator to their status.

Built in Encoder support

You can start Windows Media Encoder 9 from within Webocaster and you may control several Window Media Encoders using the Webocaster transport control. Other format encoders are controlled manually.

Webocaster offers 2 encoder applications to choose between, the **Local Encoder** which is a simplified encoder and **Microsoft Windows Media Encoder**, offering a full range of settings and options. To use any of them your computer needs to have Media Encoder 9 installed. (free application from Microsoft)

Multiple Computers

Webocaster supports the use of multiple encoders running on different machines. You can use this to distribute the processing load between many CPUs. The Encoder page group control allows you to stop/start encoding/recording on all the encoding machines simultaneously.

Starting an Encoder

To start an encoder, [use an encoder machine](#) (machine you attached your video source to) and go to the encoder page. Select the encoder you want from the encoder page menu.



Encoder page menu

From the Encoder group table you click the appropriate start button.



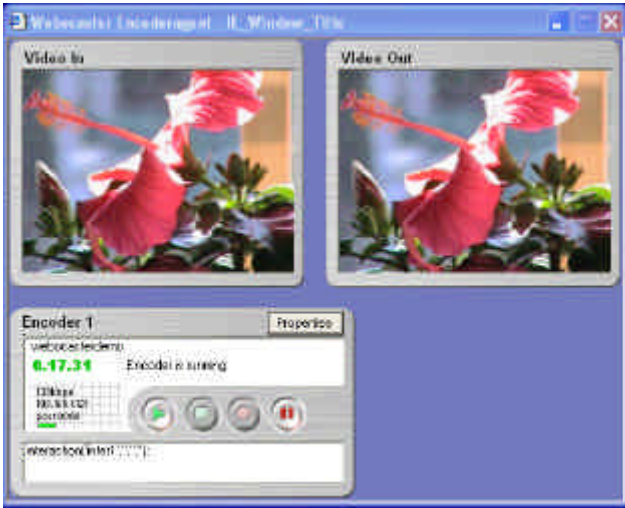
The encoder you selected will start up in a separate window.



The first time you start the Encoder you may have to wait for a good minute, all depending on your network speed. After the first load, Internet Explorer keeps the necessary files in its cache. You can view the cached files in Internet Explorer, by choosing menu Tools/Internet Options/ General/ Temporary Internet files/Settings/View Objects.

Local Encoder

The simple-to-use Webocaster Encoder 9 application, called Local Encoder, allows you to connect a camera and start broadcasting in very few steps.



Webocaster Local Encoder.

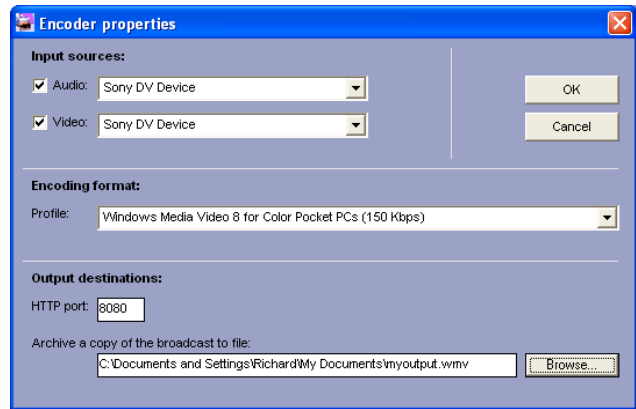
The simplified encoder has video in and video out windows and a simple control that works like a tape recorder control.

While encoding/recording the control window will show you basic information of the stream performance. The encoder integrates with webocaster to receive and embed instream commands into the media file.

The Local Encoder can be used for live broadcasting while it simultaneously records the encoded media onto a file.

This application is Windows Media 9 based, and requires the Media Encoder 9 to be installed on the computer that captures video. Media Encoder 9 is available for XP and Windows 2000 platforms.

After starting the Local Encoder application, click the button Encoder Properties.



Local Encoder properties page

Select Video/Audio source, Encoding format and output file. (All settings are required)

When setting your output file either set extension .wmv or .asf so that the media files are recognized as video files.

When you are done, press OK. The encoder will start (takes up to 10 seconds) and a video preview will be displayed in the "Video In".

To start encoding press the play button.



The Video In window can be undocked by double clicking on it. This will give you a preview window that stays on top, which is useful if you want to switch between pages in Webocaster.

MS Windows Media Encoder

Webocaster also features support for running Microsoft Windows Media Encoder. This application offers more settings, and require more knowledge about encoding from the producer.

In the next example we show MS Windows Media Encoder where 2 windows will appear, one is the Encoder Control and the second window MS Windows Media Encoder.

The Encoder control

When you start an encoder, a small status window will open and start loading the encoder program.



Individual encoder control



Windows Media Encoder

Along with it Windows Media Encoder will open. For each stream you will get a separate encoder and encoder control program.

As you choose slides and control your presentation, the individual encoder control will show what is happening and give you a message if it detects an incorrect configuration.

Configure streaming session

We presume that you know how to work with Windows Media Encoder. Go to the Windows Media Encoder window and set up a new Session, or open a session that you have saved previously. Your session has to include scripting and have an archiving file defined. Be sure to choose a unique name for the archiving file, so that it will not conflict with any previous files.

When you are done with this, take a look at the Webocaster encoder control. It should indicate that the encoder is ready.

The encoder control is compatible with MS Windows Media Encoder version 9 and version 7.

Control buttons



Play Stop Record Pause Save

Play

Press the play button to start encoding. This will broadcast your stream according to your Sessions settings.

Stop

Press stop to stop encoding and recording.

Record

Press record to start recording. If encoding has not been started (Play) then that will start as well.

Pause

Press pause to pause the recording. This is useful if you want to leave out a part from your recorded video.

Save

When you are done with the show, you can save your recorded video stream together with the layout. The saved version may be viewed on demand.

This process may take a long time, since video files can be quite large.

The recorded video file is uploaded to the FTP server. After that you should adjust the corresponding URL in the Design/Videosettings section to point to the new location.

(If you want to encode the video again you will have to change the video settings back to your encoder.)

Encoder group control

The Encoder page also contains a transport control that looks just like the individual encoder controls. With this you can control all you encoder programs at the same time. You can make them start, stop and record at the same time.

To display the group control, choose "Show Group Control" from the Encoder page menu.



Encoder group control

Webocaster will control all the encoders that has been started from the encoder page.

During a streaming session the encoder group table shows you the current status of the individual encoders.

	Stream	Encoder control	Assigned encoder	Program status
1	 100		---	 OFF
2	 50		---	 OFF
3	 100		---	 OFF
4	 300		---	 OFF
5	 300		---	 OFF

Encoder group table

The group table updates itself every 5 seconds when you select "Auto Refresh".

Archiving



Archive page in edit mode

Edit mode

The Webocaster archiving sections lets you review and adjust slide changes in your archived show. The event list to the right side, shows you the slide changes and interaction commands made during the show. Times are in seconds from start of video.

Selecting video file

If you have recorded the show at different bit rates you will first need to select one of the stored video files to work with. Use the select box in the top right corner to select the video file.

Playback

Press play in the video window to play back the video. You can use the position sliders to quickly move through your video file.

As your video is playing, a time line shows the position within each minute. The current event is showed by a green indicator while the previous and coming slides have gray indicators.



Video and event time line

To the right of the video window, the current slide and interaction are displayed as the video is being played back.



The video file can be stored anywhere as long as it is accessible over internet. Response is however much faster when the video file is on your local hard drive, so you might consider working with this on the encoder computer where the file was created...

Import Live Events

You may import the sequence of live events (your slide/interaction commands) that has been generated by the Live Control section. This way you may archive a live event right after the show is done. To do this, press the button "Import Live Events". You will need to Save before the event list is stored anywhere.

Each import only affect the currently selected video file. To import events for all video files, you will have to select all the video files in turn and import the commands for each one.

The feature of having separate event listings enables you to compensate for differences in the video files starting points. (It is usually very hard to force all encoders to start simultaneous recording at the exact same point of time)



Use the import button to archive a live show. When the live show is done you switch over to the Archive section and import all events.

Adjusting a slide time

You may adjust the time for the current event by changing the position of the green indicator. The event order is preserved which means that you cannot move it past the previous or the next event.

To change a position simply click at the new position. The green marker will jump to the new position.



You can select a marker by clicking it or by selecting its number in the event list displayed on the right section of the page.

Offset all events

You can add/subtract an offset time to all events. This is useful if the events are slightly out of sync with the video. To do this, enter your offset in +/- seconds and click the button "Offset All Events".

Add an event

To add an event manually, place the video position marker and press the Add event button. Select a slide or interaction. The event is inserted and the event list is refreshed.

Edit an event

To edit an event manually, select the event and press the Edit event button. Enter the new text or path and press Enter to apply it.

Deleting an event

You may remove the current event, by pressing the delete button in the lower part of the screen. The button indicates the current event number. You need to confirm each delete.

Saving the events

Save is the only event that stores your event list. From the Archive/Edit section you may save your current changes by pressing the Save button.



Webocaster does not have to rebuild the video file to finalize your archived presentation. (Unlike most competing products on the market) This lengthy procedure has been eliminated, and Webocaster keeps track of your event list separately. On demand presentation events are assembled in real time by the viewer browser.

Export Show

The Webocaster show may be exported as html files that can be stored on a CD disc or other media and later be played back independently from the Webocaster system. To export a show together with video, the video file needs to be accessible with either http:// or file:// so that it can be downloaded rather than streamed.

To export the active show, first Save it and then press the Export Show button. Select a destination for the show and continue.

Limitations

Since the exported show is meant to function without a webserver you cannot use certain interactive functions such as login, html slides, email, chat, voting and references to internet webpages in the exported show. Please consult the Appendix B for details on exactly what can be exported.

Record



Archive page in Record mode

If you are producing an On Demand event you can use the Archive/Record sections to record all your slide changes and interaction events. (You do not need to use the Live Control at all.) This section is accessed through the Archive/Record radio button.



During Record you may add interactions to your on-demand show. Before you can do this you need to prepare them on the Design page.

To send an interaction, select it from the list and press Send. After the interaction has been sent the next row in the list is automatically selected, so that next time you only need to press the "Send" button.

When you are done recording, stop the video and switch back to the Edit section. You should now see your recorded event list to the right. If you are satisfied then press Save otherwise do the recording again.

Please note that recording only affects the video file that you are working with. If you have more than one file you will have to record events for each video file.

Start the video by pressing play and then record all your events by clicking slides and sending interactions. The preview window will show active slides and interactions as you go on through the show.



You can use the position slider in the video window to move fast through the show. Just bear in mind that you may cause the event list to get unsorted. You can however sort the event list in the Edit section by clicking Apply.



You can also use the Live Control page to record events for an On demand show, and then be able to use the Import feature to create the event lists. To get the timing right you can simply use an external video monitor.

Webocaster User Account settings

User account information.

Webocaster root URL:	Webocaster User name:	Password:
<input type="text" value="www.yourname.com"/>	<input type="text" value="richard"/>	<input type="password" value="*****"/>
Webocaster FTP Server Address:	FTP Username:	FTP Password:
<input type="text" value="www.yourname.com"/>	<input type="text" value="yourname"/>	<input type="password" value="*****"/>
Video Archive FTP Server Address:	FTP Username:	FTP Password:
<input type="text" value="www.cdn.net"/>	<input type="text" value="cdaccount"/>	<input type="password" value="*****"/>

The User Account settings

Each user account have settings that are located on page Start/User Account Info. These settings are available to accommodate for different producers in a corporate infrastructure.

Webocaster Root URL

This is a name of the web server that runs Webocaster. Normally all user accounts use the same Root URL.



The Webocaster server may have several different aliases addressed through a local or global DNS. A producer that runs presentations within a specific project may prefer to use a web server address containing the name of his project.

Webocaster User name

The producers user name as it was configured during installation. It can not be changed.

Webocaster Password

The password may be changed here by the user himself.



Consider using NT integrated authentication. If you use NT password the user will not have to keep track of an extra password for Webocaster. The Enterprise Edition supports (challenge/response) integration in an NT domain.

Webocaster FTP

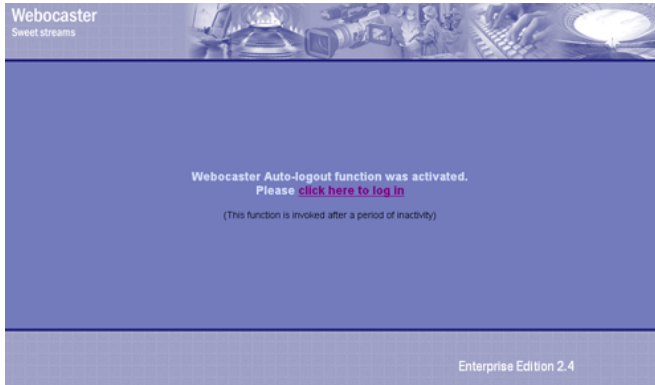
This is the FTP settings necessary to communicate with the Webocaster server. Webocaster typically uses FTP to upload the users slides and logos. This setting allows for a user specific FTP address, user name and password.

Video FTP

This is the users FTP settings to the Video Streaming Media server. This is typically a CDN or a Windows Media Server. Webocaster uses FTP to upload video files created with Windows Media Encoder (Real and Quicktime files are transferred manually). This setting allows for a user specific FTP address, user name and password.

Auto logout protection

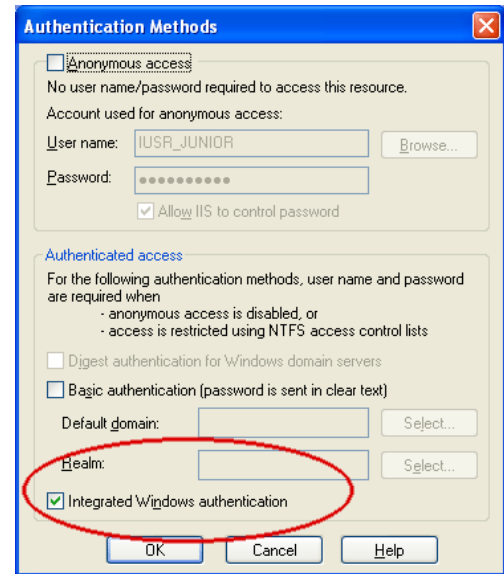
Webocaster uses the Web server Session settings to determine that a user is logged on. After a period of inactivity, the Session times out and the user is automatically logged out. Any actions will prompt the user to login again.



The time out Web server property is set as a part of the installation procedure. You can change the time out in minutes in the Web server software under the Webocaster application properties.

How to integrate Windows authentication

In an NT domain environment you may integrate Webocaster with the NT login system so that the producers will be automatically logged on to their accounts. The advantage is higher security and convenience, your users will not have to keep track of yet another password. The technical term for this is Challenge/Response and you can configure its behavior in the IIS4/IIS5 Management Console.



In Internet Information Services, open Webocaster application properties by right clicking its symbol. Under Directory Security/Authentication Methods you uncheck "Anonymous Access" and then check "Integrated Windows authentication". This will tell the Web server to authenticate Webocaster user using the NT Domain Server.


Webocaster will respond to this by skipping the login step for authenticated producers.

Webocaster System Settings

Webocaster system settings.

NOTE: Changing system settings incorrectly will cause Webocaster to malfunction.

SMTP Server IP/Address: <input type="text" value="smtp.vikingmedia.com"/>	SMTP User name: <input type="text" value="viking"/>	Password: <input type="password" value="*****"/>	
Default email address: <input type="text" value="richard@webocaster.com"/>	Email tool: <input checked="" type="radio"/> CDONTS <input type="radio"/> SMTPsvg <input type="radio"/> Abmail	Upload tool: <input type="radio"/> SoftArtisan <input type="radio"/> ASPSimple <input checked="" type="radio"/> ComUpload	
Backup Webocaster Server Address: <input type="text" value="127.0.0.1"/>	Wizard conversion: <input type="radio"/> ActiveX <input checked="" type="radio"/> Server	Design conversion: <input checked="" type="radio"/> ActiveX <input type="radio"/> Server	Encoder control: <input checked="" type="radio"/> ActiveX <input type="radio"/> Server



The System Settings

This section is normally configured during installation and there is generally no need to modify anything here during normal operation. The section is only accessible from the admin producer account. **Be careful not to change settings incorrectly as you will cause Webocaster to malfunction.**

Turn Off System

By pressing this button you will turn off Webocaster. Any attempts to log on will result in a message that the system is turned off. The system will remain OFF until the web server is restarted.



This is typically useful if you want to do maintenance work on the Web server, and you need to stop anyone from logging on to Webocaster.

Switch To Backup server

If you are required to maintain non stop operation of the system you need to purchase two Webocaster Systems and run them in parallel. Webocaster supports an infrastructure using a backup server.

Using the button "Switch To Backupserver" all users and viewers will be referenced to the backup server instead.

It is the producers responsibility to mirror his/hers show on the backup server.

SMTP settings

If the SMTP server you are using requires a user name and password you should enter them here.

Default email address

This is the email address to the Webocaster system administrator.

Email tool:

Webocaster supports Microsoft CDONTS component, that implements a SMTP server on a Windows Server. This is the default setting in the Webocaster installation. A network administrator might prefer to disable this Windows feature and use a central SMTP server instead. For that purpose Webocaster also supports two third party email tools.

Upload tool:

Webocaster supports three different third party tools for upload. The upload tool is used if you select Server conversion of powerpoint and to upload customized templates.

Wizard Conversion:

This setting controls how the Webocaster Wizard should convert slides. The recommended setting is ActiveX.

ActiveX

ActiveX uses the producers client computer to do Powerpoint conversion to JPG and HTML slides. This is the most convenient method as it gives the producer immediate feedback and control over typefaces and graphics. ActiveX requires Internet Explorer, ActiveX settings enabled and that Powerpoint 2000 is installed on the producers computer.

Server conversion:

In this mode, the Webocaster will upload the Powerpoint file to the web server and do the conversion there. The web server has to have Powerpoint 2000 installed, a full range of installed fonts and its graphics adapter set to at least 16 bit color.

Server conversion does not give immediate feedback but is more compatible, eg you may use a Mac or Netscape to upload Powerpoint files and the sending computer does not need to have Powerpoint 2000 installed.

Design conversion

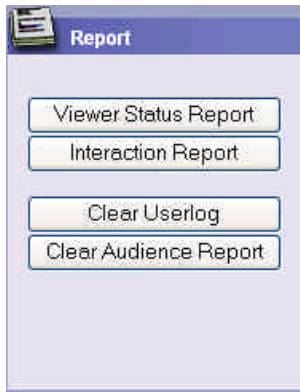
This setting affects the Webocaster Design page and is for future use. Currently the only valid setting is ActiveX.

Encoder control

This setting affects the Encoder Agent control that interfaces Windows Media Encoder 9 with Webocaster. Currently the only valid setting is ActiveX.

Reports

The report section contains 2 reports in its standard version., Viewer Status Report showing a list of all login information, and Audience Interaction Report , showing answers and emails from the audience just after a live event.



Clear User Log

This button clears out the viewer status report.

Clear Audience Report

This button clears out the audience interaction report. This report is also cleared when the webserver is restarted.

WebocasterReports™

The optional plugin WebocasterReports™ expands the report module further with a database and a wide range of reports.

Viewer status report

Name	Company	Phone	email	IP address	Logon	Duration
Brent Wood	Fairchild Inc	214 556 3421	brent.wood@fairchild.com	66.123.52.125	12.22 April 4, 2002	10.23
Cailin Taggart	Turnover Inc	304 762 1231	cailin.taggart@turnover.com	216.32.122.134	12.27 April 4, 2002	15.52
George Hill	Fairchild Inc	214 556 3412	george.hill@fairchild.com	66.123.52.125	12.27 April 4, 2002	15.57
Vera Cruz	Fairchild Inc	214 556 3845	vcruz@fairchild.com	66.123.52.125	12.28 April 4, 2002	16.34
Neal Modon	Fairchild Inc	214 556 1423	neal.modon@fairchild.com	66.123.52.125	12.29 April 4, 2002	17.03

Viewer status report

The viewer status report shows all users that has logged on to the current show.

Audience interactions report

The interaction report shows you all results of viewer interactions during your show.

Voting questions and results. No names are shown.

Rating questions and results. No names are shown.

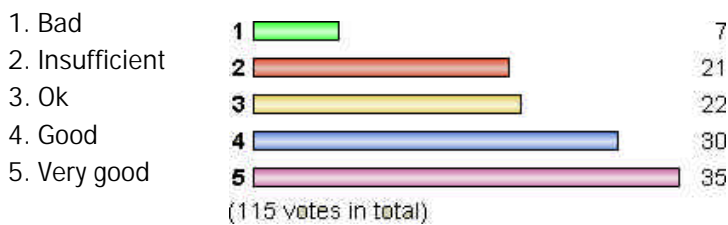
Questions asked by the audience. Name and email for the persons.

Example of an audience interaction report:

Shareholders meeting regarding Latin American expansion

Audience votes and ratings

Please give you rating on the market analysis undertaken.

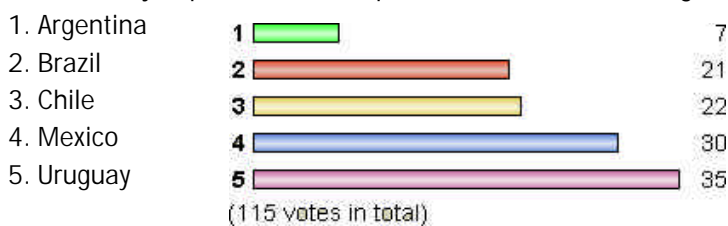


Do you accept the current market analysis as sufficient?

86 voted YES

29 voted NO

How would you prioritize our expansion onto the following markets?



Are you in favor of expanding according to the presented plan?

65 voted YES

50 voted NO

Audience questions:

Cailin Taggart, cailin.taggart@turnover.com

Does the market analysis calculate with Colombia as a vertical market?

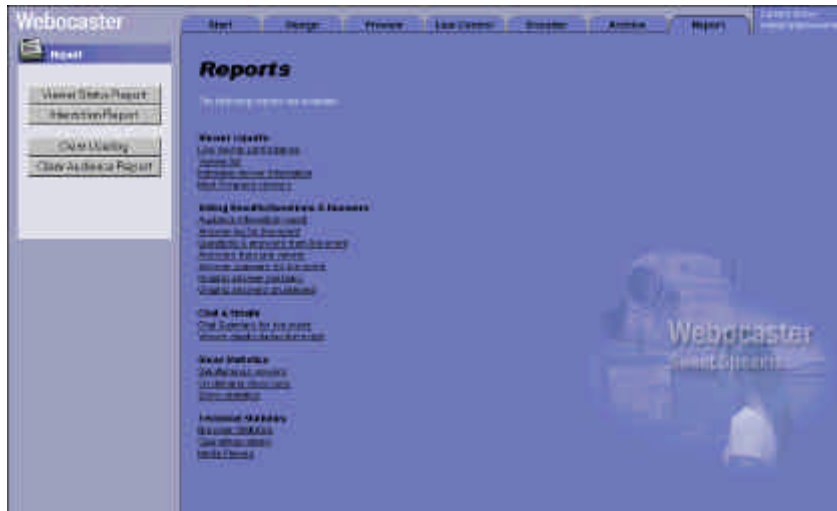
Stephanie Gruesch, stephg@turnover.com

The Argentina market data does not add up to 100%. Why is this so?

<end of report>

WebocasterReports™ (Optional Plugin)

WebocasterReports™ is an optional plugin that you can purchase separately and add to the system. It is a database application that collects viewer information and offers a wide range of reports. When installed this plugin changes the Report page as follows:



The report page with WebocasterReports™ installed

Since WebocasterReports™ is a database application, it uses a database engine to run. The plugin is available for Oracle, MS SQL Server and MS Access. You may set it up with your own database or you may use the built in support for Access.

Viewer names in reports

Many reports use the viewer name to distinguish between the viewers. So in order to get good readability, you should select the Name option for the login/intro page and allow your viewers to enter their name.

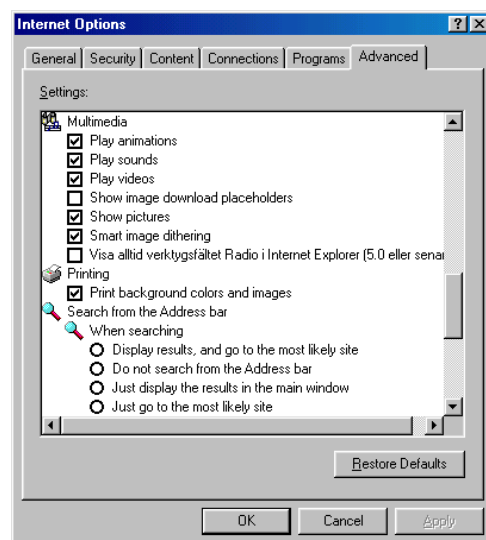
If names are missing, the system will use the viewer ip number instead, which gives you a less information in the reports.

Logoff Survey

WebocasterReports includes a simple log off survey that you can use to get feedback from your viewers. The logoff survey is displayed at the end of the show, when the user closes the show window. The logoff survey is selected at Design /Login page.

Printing options

The reports are formatted for printing and lengthy reports are automatically divided into several pages. When printing, them you should select the option "Print background colors and images" that is located in IE/Tools/Internet Options/Advanced.



IE/Tools/Internet Options/Advanced

Viewer reports

Live viewer performance

Live performance									
	Viewer Name	Status	Duration (minutes)	Response (seconds)	Media (status)	Quality (fps)	Bandwidth (kbps)	Stream	Verified
2	Una Swanson	online	3	0.1	inactive	0	0	200	
3	Harry Schein	online	1	0	play	30	0	56	

This report gives you an overview of the currently logged on viewers.

The information comes from the viewer browsers that transmit this information back to the server during the show. Normally the information is transmitted 2 times per minute, however when using "Direct" control the viewer browsers transmit 20 times per minute.

Viewer number

Each viewer has a sequence number so that you can see in which order the viewers have logged on.

Viewer Name

The viewer name is pulled from the Name field on the login page. If you decide not to use the Name field, this information may be pulled from the viewers email address or ip number. By clicking the viewer link you can open a mail window and send a mail to a specific viewer.

Status

This shows what the user is currently doing.

Status "Authenticated" means that the viewer has logged on and is still on the introduction page.

Status "Loading x%" shows that the viewer has opened the show window and is still loading graphic elements and slides.

Status "Online" shows that the viewer is watching the show and is correctly connected with the webserver.

Status "Disconnected" shows that the viewer has closed the show window. The viewer may still have the introduction page open, so it is still possible that the viewer decides to open the show window again. When the viewer has been disconnected for 5 minutes, he is removed from the live performance report.

Status "Offline" shows that the viewer browser has stopped communicating with the webserver. This indicates that the viewer browser has lost connection with the webserver which may be caused by network failure or closed IE with the taskmanager.

Duration

Shows how many minutes the viewer has had the show window open. (The duration is not measuring video playing time, look in the report "Individual Viewer Information" for th information.)

Response

The response time shows how fast the browser get replies from the webserver. A high value (more than 2 seconds) on one viewer indicates that her browser has a slow connection. High values on all viewers may indicate that the webserver is getting busy.

Media status

Media status shows if video/audio is playing. Media status "play" indicates that the video is playing, "pause" that viewer selected pause on an on demand video, "stop" that the viewer has stopped the video or that an on demand video has finished playing.

Media status "buffering x%" indicates that video data is being received but not playing yet.

Media status "inactive" indicates that no video information is being received.

Quality

Indicates the frame quality of the video expressed in average frames per second. Since this is a sliding average, it expresses how well the video has been played over a timeperiod.

Bandwidth

Indicates the currently receiving bandwidth for streaming video. (Not active when playing a local file)

Stream

Indicates what stream/bitrate that the viewer has selected.

Verified

Shows verified player/document support for the viewer computer.

Viewer list

The viewer list allows you to see all viewers on a specific show and date. It collects viewer data from both on demand and live events.

Name	Email	Company	Login time	Duration
Abraham Haskov	ahaskov@net.com	The Company	4:00:21 PM	63.6 sec
Frank Turpin	frank.turpin@net.com		4:00:21 PM	63.7 sec
Walter Haskov	walter.haskov@net.com		4:00:21 PM	63.4 sec
Gerard Smith	gerard.smith@net.com		4:00:21 PM	63.5 sec
George Haskov	george.haskov@net.com		4:00:21 PM	63.6 sec
Johnnie	johnnie@net.com		1:32:12 PM	151.0 sec
Harvey Barnes	harvey.barnes@net.com		4:00:21 PM	63.3 sec
Howard Pittman	howard.pittman@net.com		4:00:21 PM	63.6 sec
Alan Carter	alan.carter@net.com		4:00:21 PM	63.7 sec
John Rogers	john.rogers@net.com		4:00:21 PM	63.3 sec
Larry Smith	larry.smith@net.com		4:00:21 PM	63.7 sec
Lopez Jorge	lopez.jorge@net.com		4:00:21 PM	63.7 sec
Mary Archer	mary.archer@net.com		4:00:21 PM	63.6 sec
Mary Liberman	mary.liberman@net.com		4:00:21 PM	63.5 sec
Nick Fooks	nick.fooks@net.com		4:00:21 PM	63.6 sec
Opal Thomsen	opal.thomsen@net.com		4:00:21 PM	63.6 sec
Peter Smith	peter.smith@net.com		4:00:21 PM	63.6 sec
Ralph Barber	ralph.barber@net.com		4:00:21 PM	63.5 sec
Simon Ferraro	simon.ferraro@net.com		4:00:21 PM	63.4 sec
Dr. Phil Chalmers	drphil.chalmers@net.com		4:00:21 PM	63.6 sec
Tony Harrison	tony.harrison@net.com		4:00:21 PM	63.5 sec
Walter Troy	walter.troy@net.com		4:00:21 PM	63.6 sec
William Bartlett	william.bartlett@net.com		4:00:21 PM	63.7 sec

Selection

- Show
- Date

Name

This is the name as entered by the viewer has on the introduction/login page. If viewers haven't been asked for their name then this column will contain the ip number that was used.

Email

Email address, as entered on the introduction/login page.

Company

Company name, as entered on the introduction/login page.

Login time

The time when the viewer was authenticated.

Duration

How long the specific viewer was watching the show.

Individual viewer information

This report shows all the collected viewer details for a specific viewer and occasion. The report is extensive and lists computer properties as well as performance statistics.

Individual Viewer Information	
Viewer's technical and associated performance statistics.	
Show: 10001: 10/09/2003, Viewer Name: Alan Farrel	
Date: 01/10/2003	
Name	Alan Farrel
Viewer Name	
Email	alan.farrel@bt.com
Phone	
Company	
IP Address	192.168.1.1
User agent	MSIE 6.0 (compatible; MSN 6.0 Windows NT 5.1)
Cookie support	Yes
Browser	Internet Explorer 6.0
Browser type	IE 5
Platform	Win2k x 86 x 86
CPU	486
Operating system	Windows 9x
Language	afrikaans
Windows Media version	5.0.0.2000
Real Player version	
Shockwave version	
Flash support	Yes
PDF support	Yes
JavaScript	Yes
MS Word support	Yes
Download: Windows	
Download time	01/10/2003 09:43 PM
Download duration	01/10/2003 09:27 PM
Download size	224 KB
Load time	01/10/2003 09:38 PM
Load duration	0:12 m
Connect time (Media)	01/10/2003 09:43 PM
Connect duration	384 m
Buffer start time (Media)	01/10/2003 09:40 PM
Buffer duration	1:21 m
Buffer size	1
Play start time (Media)	01/10/2003 09:47 PM
Play duration	2:5.8 seconds
Stop time (Media)	01/10/2003 01:00 PM
Disconnect time	01/10/2003 01:00 PM
Language average (Windows)	0 m
Language maximum	11 m
Response maximum	1:30 m
Response failure	0
Download (Streaming) status	0 m
Download maximum	0 m
Download minimum	0 m
Download status	0 m
Download maximum	25 m
Download minimum	27 m
Download status	100%
Current average video	408 x 344 (7.5)
Current average audio	128 x 44100 (7.5)
Current playback	

Selection:

- Show
- Viewer Name
- Date

While you are selecting Show, Viewer Name and Date, the selection ranges updates to reflect the available information. If your date selection results in very many viewer names then you will be offered a search option to filter out the names you are interested in.

Most Frequent viewers

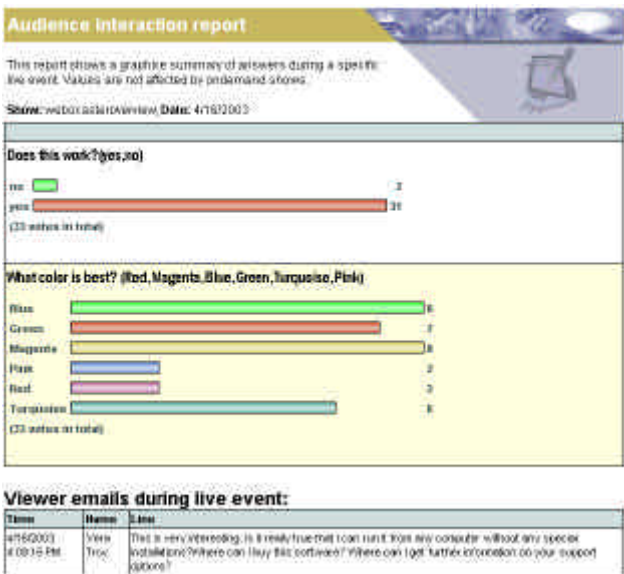
This report shows the most frequent viewers, sorted by number of viewing occasions for all shows and producer accounts. The report only includes viewers that have visited more than once.

Most Frequent viewers	
The most frequent users sorted by number of viewing occasions.	
Name	View Count
Richard	21
192.168.1.1	12
Paul Smith	9
192.168.1.121	8
Kath Rogers	2
zarah@bt.com	2
Merje Juniper	2

Voting Results/Questions & Answers

Audience interaction summary

This report shows a graphic summary of answers during a specific live event. Values are not affected by ondemand shows.



Selection:

- Show
- Date

The report contains questions and answer summaries as well as a summary of the viewer emails that was sent during the show.

The difference between this report and the standard Enterprise Audience Interaction report is that this report is stored in a database and can be selected and retrieved at any time, while the standard report only exists right after a live event.

Questions & answers from live event

This report shows questions and individual answers from a live event. Questions are sorted in the same order they were sent at the first show. The live event period is always within one day and the values are not affected by ondemand shows.

Questions & answers from live event

This report shows questions and individual answers from a live event. Questions are sorted in the same order they were sent at the first show. The live event period is always within one day and the values are not affected by ondemand shows.

Show: weboc-02010101view, Date: 4/16/2003

Question	Answer	Name
Does this work? (yes,no)	yes	Georg Haloni
Does this work? (yes,no)	yes	Robin Edstrom
Does this work? (yes,no)	yes	Vera Tris
Does this work? (yes,no)	yes	Henke Böhne
Does this work? (yes,no)	yes	Frank Targham
Does this work? (yes,no)	yes	Loyce Jung Ousthere
Does this work? (yes,no)	yes	Don Anderson
Does this work? (yes,no)	yes	Howard Peterson
Does this work? (yes,no)	yes	Marga Junge
Does this work? (yes,no)	yes	Arken Barlett
Does this work? (yes,no)	yes	Arvid Holmst
Does this work? (yes,no)	yes	David Lehninger
Does this work? (yes,no)	yes	Rich Frank
Does this work? (yes,no)	yes	Alan Farrell
Does this work? (yes,no)	yes	Geoff Hardhead
Does this work? (yes,no)	yes	Peter Sehl
Does this work? (yes,no)	yes	Oge Thomsen
Does this work? (yes,no)	yes	Mary Lethring
Does this work? (yes,no)	yes	Keith Rogers
Does this work? (yes,no)	yes	Quinn
Does this work? (yes,no)	yes	Luan Carla Bussacopira
Does this work? (yes,no)	yes	Colin O'Leary
Does this work? (yes,no)	yes	Lewis Smith
Does this work? (yes,no)	yes	Carlo Zillego
Does this work? (yes,no)	yes	Terry Harburg
Does this work? (yes,no)	yes	Geoff Swanson
Does this work? (yes,no)	yes	Clas Schenker
Does this work? (yes,no)	yes	Chad Huth
Does this work? (yes,no)	yes	Bill Lowenthal
Does this work? (yes,no)	yes	Eric Finkel
Does this work? (yes,no)	yes	Carlos O'Farral
Does this work? (yes,no)	no	Sarah Fortak
Does this work? (yes,no)	no	Garth Smithers
What color is best? (Red, Magenta, Blue, Green, Turquoise, Pink)	Red	Vera Tris
What color is best? (Red, Magenta, Blue, Green, Turquoise, Pink)	Red	Carlo Zillego

Selection:

- Show
- Date

Answers from one viewer



Selection:

- Show
- Viewer Name

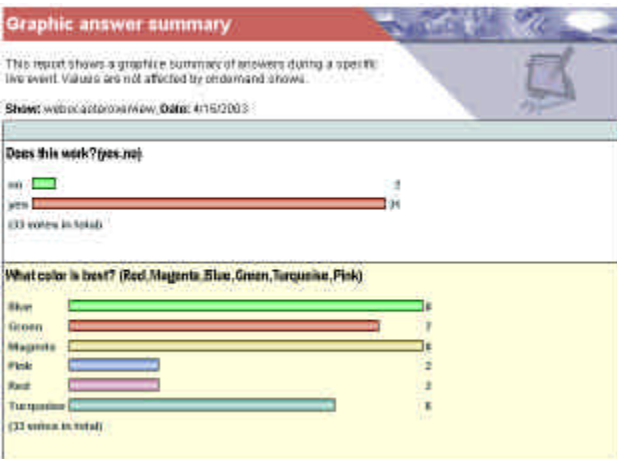
This report shows the answers from a single viewer occasion. The viewer is identified by name/email/user id/id number and the viewing time. This report shows information from both live and on demand events.

Answer summary for live event



This report shows a summary of answers during a specific live event. The live event period is within one day and report does not contain values from any ondemand shows.

Graphic answers live

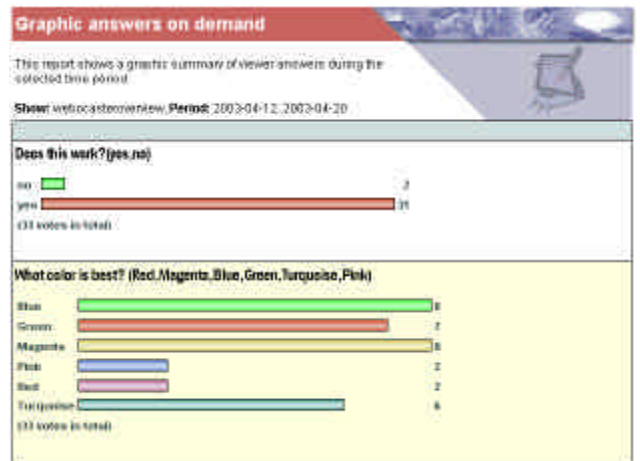


Selection:

- Show
- Date

This report shows a graphic summary of answers during a specific live event. Values are not affected by ondemand shows.

Graphic answers on demand



Selection:

- Show
- Starttime
- Endtime

This report shows a graphic summary of viewer answers during the selected time period. The report only contains values from on demand events.

When entering the dates you need to use the ISO format YYYY-MM-DD. Example: 2003-10--25

The date format presented in the report follows the regional settings in the webserver.

Chat & Emails

Chat Summary for live event

The report shows the chat discussion comments during a live event. Chat discussion is only active in live events.

Show: webocasteroverview, Date: 4/18/2003

Time	Name	Line
4/18/2003 4:00:44 PM	View Troy	What is the target for this product?
4/18/2003 4:02:09 PM	Don Anderson	Link to the corporate web site for meetings and that...
4/18/2003 4:03:14 PM	Rayn Ector(s)	Press release, if that
4/18/2003 4:03:16 PM	View Troy	So, can I use it to broadcast from my office?
4/18/2003 4:03:30 PM	View Troy	Or do I have to have some special equipment?
4/18/2003 4:03:42 PM	Don Anderson	You can broadcast from your office as long as you have a microphone or camera all you need
4/18/2003 4:03:54 PM	View Troy	App. need...

Selection:

- Show
- Date

The report shows the chat discussion comments during a live event. Chat discussion is only active in live events.

The Name column requires that the viewers have entered their names on the intro/login page to the show. Otherwise the name column will contain the viewers IP number.

Viewer emails during live event

The report shows the viewer emails sent during a live event.

Show: webocasteroverview, Date: 4/18/2003

Time	Name	Line
4/18/2003 4:02:15 PM	View Troy	This is very interesting. It's really true that I can run it from any computer without any special hardware? Where can I buy this software? Where can I get further information on your support options?

Selection:

- Show
- Date

The report shows the viewer emails sent during a live event. The emails were sent to the address entered in the Design page/Receiving Email field and also stored in the database for later retrieval by this report.

The viewer email address is included in the report if the viewer supplied it with his mail.

Show Statistics

Simultaneous viewers

Shows listed by simultaneous participants. This gives a picture of the number of simultaneous users attending a live event.

Show	Date	Participants
webocasteroverview	4/18/2003	20
webocasteroverview	4/18/2003	15
webocasteroverview	4/17/2003	13
webocasteroverview	4/16/2003	13
webocasteroverview	4/17/2003	9
Business	4/18/2003	7
Business	4/17/2003	6
Business	4/16/2003	5

Shows listed by simultaneous participants. This gives a picture of the number of viewers attending a live event during the same day. The report only includes events with more than 2 viewers.

Note: Simultaneous in this case means number of distinct viewers for the same live show during the same day. On demand viewing is not included in these numbers.

On demand show runs

On demand shows listed by number of viewing occasions.

Show	Show runs	Total minutes
webocasteroverview	43	43
Business	26	156
webocasteroverview	3	3
IT2	2	2
IT0_preception	1	1
production	1	1
plastic_ceramics	1	1
rev_000001_02	1	1
bookkeeping_new/02	1	1

On demand shows listed by total number of viewing occasions. The total number of minutes is the sum of the effective video playing time.

Show statistics

Overall statistics for a specific show.

Show: webocaster/overview

Show	webocaster/overview
Viewer count	30
Content average rating	2.67 on a scale [1 - 5]
Tech average rating	3.67 on a scale [1 - 5]
Bandwidth minimum	0 kbps
Bandwidth maximum	0 kbps
Frame rate minimum	0 fps
Frame rate maximum	30 fps
Response time minimum	10 ms
Response time maximum	10436 ms
Load duration average	8904 ms
Connect duration average	1941 ms
Buffer duration average	418 ms
Play duration average	5973 ms

Overall statistics for a specific show.

Viewer count is the sum of viewing occasions and does not distinguish between the viewers.

Content average rating and **Technical average rating** is the result of the Survey feedback from the viewers.

Response time is calculated from how fast the webserver responds to the viewers.

Load duration is calculated from the time it takes for the browsers to load slides and graphic elements.

Connect duration is calculated from the time it takes to establish connection with the streaming server and start receiving streaming data.

Buffer duration is calculated from the time it takes to buffer streaming data before it can start playing.

Technical Statistics

Browser Statistics

Distribution of browsers used by your viewers.

Browser	Version	Viewer_Count
Internet Explorer	6	00
Internet Explorer	6	13
Internet Explorer	5.5	8
Internet Explorer	5.0	4
Netscape	7.01	1
Internet Explorer	5.01	1

Distribution of browsers used by your viewers. The statistics are collected for all shows created with this Webocaster installation, that is, all producer accounts and all their shows

Operating systems

Distribution of viewer operating systems.

Platform	CPU	Platform_Count
Windows XP	x86	20
Windows 2000	x86	25
Windows 98	x86	18
Windows Me	x86	1
Mac OS	PowerPC	1

Distribution of viewer operating systems. The statistics are collected for all shows created with this Webocaster installation, that is, all producer accounts and all their shows

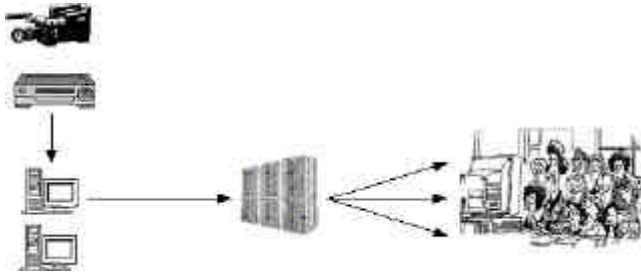
Media Players

Distribution of Media Player support among the viewers.

Platform	Windows Media	Real Media	Quicktime	Total
Windows XP	17	12	25	50
Windows 2000	22	18	11	25
Windows 98	18	14	13	18
Windows Me	1	0	1	1
Mac OS	1	0	1	1

Distribution of Media Player support among the viewers. The statistics are collected for all shows created with this Webocaster installation, that is, all producer accounts and all their shows.

Webcast equipment tips



Broadcasting flow

Webcasting involves a lot of components. One of our goals with the Webocaster design is to integrate these parts and minimize the number of steps you need to take to get your show up and running. In this section we will discuss the components of webcasting and give you some tips and recommendations.

Target your audience



First, try to find out a little about your audience, such as what operating system they have and the bandwidth they are likely to have. Today, video and audio support is more or less standard. This is especially true for PCs running Windows, which pretty much all come with Internet Explorer installed and normally supports Windows Media. However, although Windows make up 90% of the PC market, this might not be true for your specific audience.

For instance, if most of your audience are running Opera on Linux, you should probably broadcast Real Media for that audience. If your audience mostly uses Macintosh computers, you should broadcast Quicktime. Or you might want to broadcast several formats to satisfy a broad audience.

Streaming format recommendations

Audience OS	Streaming format
Windows 98/ME/XP	Windows Media
Windows 95	Real Media
Mac OS	Quicktime
Linux	Real Media
Unix	Real Media

Your technology choice should depend on your audience. In the ongoing market share war, Microsoft offers you to use their Windows Media Players AND Encoder software, whereas it will cost you some money to stream Real Media or Quicktime.

Distributing streaming media



Once you have established what formats to use, you will need to find a way to distribute the video to your audience. If you have a large internet audience you can run into bandwidth problems when streaming from one source. This is because internet (and some intranets as well) uses UNICAST as its broadcast technique. This basically means that every viewer needs her own connection and stream. If you transmit over an intranet, there is a good chance that your network supports MULTICAST to all your users, which allows all your users to share one stream.



An example. Say your broadcasting full screen video at 300 kbps to some 5000 viewers. In UNICAST you will be using up a bandwidth over 1500 Mbps which is VERY MUCH, even for a large enterprise network. If you transmit the video as MULTICAST, then you only need a bandwidth of 0,3 Mbps.

Considering the above example, a T1 line would allow you to broadcast at 300 kbps to a total of 5 viewers! So what if you have 5000 viewers? Well, don't despair, you can buy cost efficient distribution service from CDN companies like Speedera and Playstream. You only need to transmit one stream to the CDN, and they will redistribute it to your viewers.

If your network lacks MULTICAST capabilities but has sufficient bandwidth, you can distribute the stream using your own networking equipment. For this you will need a distribution server running Windows Media Server or similar.

Appropriate Encoder hardware



We highly recommend acquiring a dedicated Encoder machine. Manufacturers such as Winnov and Pinnacle have several models suiting every specific need. These machines ship preconfigured and are optimized to encode video, right out of the box. The advantage of buying a preconfigured system is that you won't need to spend valuable time installing video capture cards, drivers and software and trouble shoot for performance glitches.



Some PCs today are capable of receiving DV video. Such a PC might be sufficient if you only need a single stream at a moderate bitrate.

Video/Audio sources



If you want to transmit a live event, you will need to hook up to video signal from one or more cameras. To broadcast a prerecorded video you need a VCR.

Presentation software



If you are webcasting a media rich live event, make sure your presentation software is designed for this purpose. Many software titles are designed for On-Demand production and do not offer a whole lot in terms of Live production. In a Live situation it may be important to monitor who is logged on, who is receiving/not receiving, etc. The software should be easy to use, flexible and allow extensive trouble shooting if any component fails.

Web server



When the viewer looks at your presentation, he/she will receive graphics (desktop layout, slides and other graphics) from your web server and the video stream from a streaming server or encoder. We recommend running the encoders, streaming servers and web server on separate machines to ensure high performance video, especially for large audiences.

Webocaster is available on two web server platforms; IIS on Windows and Apache/Chilisoft ASP on Sun Solaris/Linux. If you have the necessary network resources, we recommend running Webocaster on a dedicated server.

Web hosting

You also have the option of running Webocaster on one of many web hosting services. Be however sure that you buy sufficient performance. Webocaster is the heart of your webcast event and server or connection failures, long or short, will bring down your show. The best way of choosing a reliable web host is to primarily focus on reputation and features, not so much the cost. In the long run, this will be money well spent on good service.



Webocaster requires a fast responding web server in order to execute all live show commands. In return, it does not need very much bandwidth since very little information is sent during the live webcast. The bandwidth intensive part of the show is the streamed video. A Streaming Media Server distributes the video portion of the live event.

Control and production



You can view and control your show from any PC using a browser. Webocaster runs remotely on the web server (private or hosted), so there is no software to install locally.

To prepare a show, you need a PC with IE and PowerPoint 2000. Webocaster uses PowerPoint to read, convert and upload your slides during the setup phase.

During a live show, we recommend that you view it on a separate computer in order to monitor what the actual viewers are seeing.

Appendix A, References

Windows Media Encoder 9

Windows Media Player 7.1

These products are currently available for free at

<http://www.microsoft.com>

Real One Player

Real Media Producer

These products are currently available at

<http://www.real.com>

Quicktime Player

Available at <http://www.quicktime.com>

Appendix B Compatibility

Webocaster takes full advantage of advanced browser technologies such as ActiveX, XML, DHTML, CSS and Java script. There is a broad variation of operating systems and browser versions featuring different levels of compatibility. With no exceptions IE 5+ on a windows platform is the most compatible browser and with this recommendation you should be ok with most Webocaster features. If you design a show for users on other platforms then you need to be more specific when selecting advanced features.

General compatibility information.

Windows Media

Windows Media is the format with the fastest growing market share. Most Windows PCs ship with Windows Media support, and this is a key advantage for rich media producers. Microsoft also ships Windows Media Encoder for free, which enables you to configure and encode Windows Media with ease using the products excellent visual interface. The Windows Media technology has a powerful feature in its ability to mix any scripting information into the video stream itself, ensuring exact synchronization in both live and on demand streaming. Webocaster takes full advantage of the Windows Media technology by integrating scripting as well as remote control of Windows Media Encoders.

Real Media

The pioneer and once dominating format for streaming media. The latest technology from Real Networks features excellent compression performance. Players, Encoders and Streaming Server products may be purchased online from Real Networks. Real Media also offers a basic player that your viewers may download for free. Webocaster supports Real Media both live and on demand, but it does not let you remote control the encoder or integrate commands into the video stream.

Quicktime

Quicktime is a video technology from Apple. It was initially developed for video editing, and is not as commonly used for streaming as is Real/Windows. Webocaster supports Quicktime live streaming but not On demand. You can however stream a stored Quicktime video file and control it with live commands.

Windows

Webocaster fully supports viewers on Windows XP,ME,98,NT and 2000 platforms. The web server installation requires either Windows 2000 server or Windows NT 4 server.

Mac

Webocaster supports live webcasting for Mac in Quicktime, Windows Media and Real Media. Some advanced features such as sending Excel does not work on Mac.

Internet Explorer

Webocaster supports Internet Explorer version 5 and higher. IE is required for the Webocaster features Resizable layout, HTML slides and Excel.

Netscape

Webocaster supports Netscape 6.2 and higher. Some advanced features are not supported by Netscape.

